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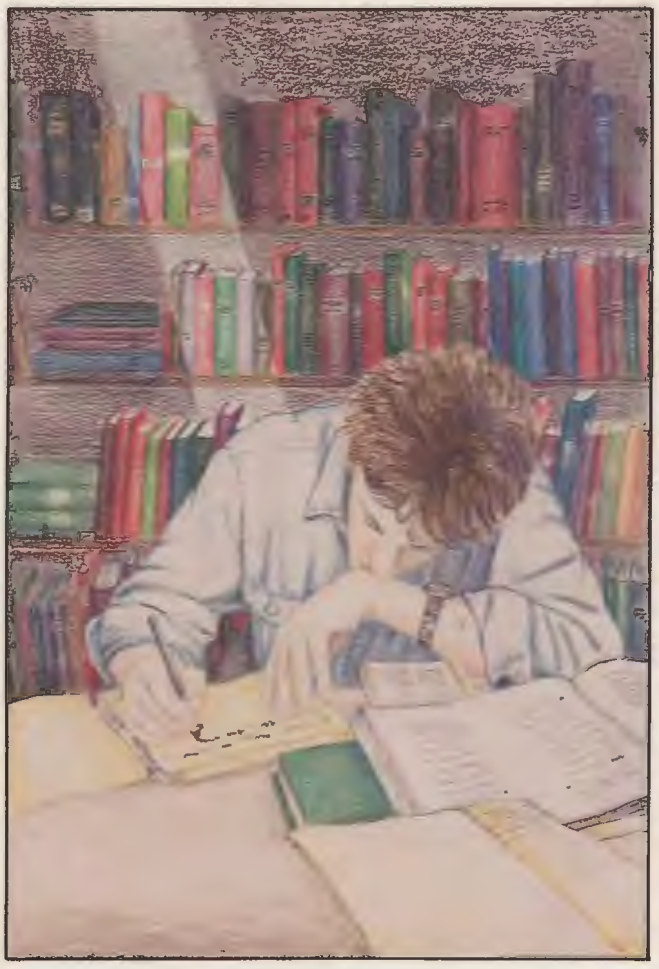

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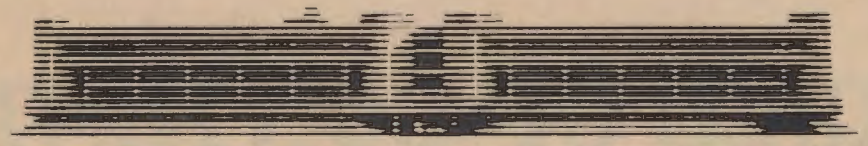

The UNIVERSITY of TEXAS of the PERMIAN BASIN

1986/1987 Catalog

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EQUAL OPPORTUNITY STATEMENT

No person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under, any program or activity sponsored or conducted by The University of Texas System or any of its component institutions, on any basis prohibited by applicable law, including, but not limited to, race, color, national origin, religion, sex, or handicap.

The University of Texas of the Permian Basin reserves the right to withdraw courses at any time, change fees, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirements affecting students. Changes will become effective whenever the appropriate authorities so determine and may apply to both prospective students and those already enrolled. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student, or faculty member and The University of Texas of the Permian Basin or The University of Texas System.

The University of Texas System
Board of Regents

THE UNIVERSITY OF TEXAS SYSTEM
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Teresa L. Brockman, BBA ..... Coordinator, Junior College Relations

Sherwood D. Kupper, MA ..... Director, Student Life

Joyce P. Thompson, AA ..... Director, Financial Aid and Career Services

University Calendar

UNIVERSITY CALENDAR 1986-87

FALL SEMESTER 1986

September 2 & 3	Registration
September 4	Classes begin 8 a.m.
September 17	Last day of late registration
	Last day to add classes
	Last day to apply for December graduation
September 19	Last day to drop or withdraw without academic record
November 7	Last day to drop classes or withdraw from the university without a pass/fail indicator (QP/QF or WP/WF)
November 13	Last day to submit final copy of master's thesis/research report to master's committee
	Last day to add SPI courses
November 25	Last day to take oral exams (graduate students)
November 26	Holiday begins at 5 p.m. (classes beginning after 5 p.m. will not be held)
November 27 & 28	Holiday - Thanksgiving, no classes
December 1	Classes resume 8 a.m.
December 12	Last day of classes
	Last day to drop classes or withdraw from the university
December 15 - 17	Final examinations
December 18	Semester ends

University Calendar

SPRING SEMESTER 1987

January 12 & 13	Registration
January 14	Classes begin, 8 a.m.
January 27	Last day of late registration
	Last day to add classes
	Last day to apply for May graduation
January 29	Last day to drop or withdraw without academic record
March 9-13	Spring recess: classes dismissed
March 16	Classes resume, 8 a.m.
March 26	Last day to drop classes or withdraw from the university without a pass/fail indicator (QP/QF or WP/WF)
April 2	Last day to submit final copy of master's thesis/research report to master's committee
	Last day to add SPI courses
April 10	Last day for oral exams (graduate students)
April 17	Good Friday, classes dismissed all day
April 20	Classes resume, 8 a.m.
May 1	Last day of classes
	Last day to drop classes or withdraw from the university
May 4 - 6	Final Examinations
May 7	Semester ends
May 9	Commencement: 2 p.m.

SUMMER SESSION 1987

A detailed calendar will be published in the Summer Class Schedule.

The University

As an upper-level and graduate educational institution of The University of Texas System, The University of Texas of the Permian Basin is state-supported and provides 28 Bachelor's Degree programs and 9 Master's Degree programs through five academic divisions of the university. Established to serve the higher educational needs of the Permian Basin, it also assumes its share of responsibility for service throughout the state and the nation.

The mission of The University of Texas of the Permian Basin is to assist students in realizing their fullest potential, both personally and professionally. The educational experience at U. T. Permian Basin should help students develop powers of judgement and to mature both emotionally and intellectually. This experience should further prepare students to earn a satisfactory livelihood and to make a worthwhile contribution to the nation's social and economic life.

Although career preparation is important, U. T. Permian Basin provides opportunities for students to gain practical understanding in other areas essential for a meaningful life. These include an understanding of representative government and the attendant responsibilities of citizens within it; the ability to communicate ideas clearly, both orally and in writing; a greater appreciation of aesthetics; an understanding of the role of science and technology in society and the development of skills in life-time sports.

Finally, through both formal instruction and informal atmosphere, U. T. Permian Basin seeks to cultivate each student's ability to live in harmony with others, to live in a multicultural society, to recognize and respect differences of opinion, and to seek a better life for the community of man.

Authorized by the Texas Legislature in 1969 and designated as an upper-level university for junior, senior and graduate students, U. T. Permian Basin began classes in September, 1973.

The University of Texas of the Permian Basin is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

U. T. Permian Basin is situated on a 600-acre site on the eastern side of Odessa. The campus is essentially square in shape and surrounded by wide paved streets, making it easily accessible from all directions. The core campus is compact and provides for convenient parking, virtually one space per student, faculty and staff.

The university has gained a reputation for outstanding teaching where professors give special attention to students and their education. The result has been excellence in education.

Certain material in this catalog is subject to the approval of the Coordinating Board Texas College and University System.

Undergraduate Studies

Admissions

Admissions

A student may be admitted to U. T. Permian Basin according to any one of the following classifications:

1. Regular undergraduate - seeking a first or second bachelor's degree.
2. Regular graduate - seeking a master's degree.
3. Nondegree - seeking one or a series of courses only and wanting credit and grade.
4. ENCORE - seeking one or a series of courses only and not desiring a grade for credit (similar to audit).
5. International student - seeking bachelor's or master's degree, not a U. S. citizen or permanent resident, and seeking F-1 or J-1 visa status.

Admission Requirements

The requirements for admission are as follows:

1. A student seeking regular admission to pursue a degree program must have completed at least 54 semester credit hours at a community college, senior college or university. The institution must be fully accredited by the state and a regional accrediting association. This previous coursework is normally elected at the freshman and sophomore level to complete the basic core of courses recommended by the Coordinating Board of Texas Colleges and Universities.
2. The student having fewer than 54 semester hours of work may be admitted on an individual basis through a special admissions process utilizing an institutional committee. These students will be enrolled concurrently at an area community college until such time as the 54 transfer hour requirement is satisfied.
3. A non-degree student with fewer than 54 semester hours of previous work who wishes to take upper-level courses may be admitted by the institutional committee. An individual with special needs that warrant consideration by the committee may be granted admission for limited enrollment.

   All special admissions will be reviewed each semester before permitting continued enrollment.

Admissions

4. A student seeking regular admission must have a 2.00 GPA (or C average) for all courses previously taken at other colleges and universities. Grades of F carry no transferable credit to the university. Grades of D in business core courses are not transferable for students pursuing BBA degrees.

5. The student must be in good standing at the institutions previously attended and qualify for readmission to those institutions.

6. Each student must submit the completed admission form and request an official transcript from each institution previously attended. These transcripts should be sent from the registrar of each college attended directly to the U. T. Permian Basin Admissions Office. Student carried copies cannot be accepted.

   All transcripts and supporting information submitted to determine the student's eligibility to U. T. Permian Basin become a permanent part of the student's file and will not be returned to the student. Students wishing copies of transcripts submitted must request them from the originating institution. It is not possible for the university to dispatch official transcripts for another institution.

   If a student is permitted to enroll at U. T. Permian Basin without transcripts from previous colleges attended, he or she will be given until the end of the semester for these to arrive at the Admissions Office. If the transcripts have not arrived by the end of the first semester of enrollment, the student will not be allowed to register for any subsequent semester until transcripts have arrived and have been verified and evaluated by the Admissions Office. In addition, grades earned during the first semester will not be released until transfer transcripts have been verified and evaluated.

To obtain an admission form or additional information, write to:

Dean of Admissions
The University of Texas
of the Permian Basin
4901 E. University Blvd.
Odessa, Texas 79762-8301

While there is no specific deadline for application for admission to the fall semester, applicants are encouraged to submit applications and transcripts two months prior to the beginning of the semester they plan to attend. The application file should be completed at least one week prior to the scheduled registration date.

Admissions

International Student Admissions

International students, graduate and undergraduate, must apply at least 3 months prior to the semester they plan to enroll to allow documents to arrive in time. All correspondence and supportive documents for admission purposes should be sent by airmail, not surface mail, from points outside the United States. International students must have all admissions documents submitted and approved at least 8 weeks prior to the beginning of the semester in which they plan to enroll.

In addition to the general requirements, the following regulations apply to all international students:

1. Certified transcripts of student's academic record (mark sheets) from universities previously attended in the home country must be submitted. An official English translation of the transcripts must be included if the academic transcripts are in a foreign language. Moreover, where university-level studies are to be considered for possible undergraduate transfer credit, a syllabus, catalog or similar bulletin must be submitted which describes the courses in sufficient detail for proper evaluation.

2. Signed statements guaranteeing the student's ability to pay expenses while at U. T. Permian Basin must be accompanied by documentation supporting the statement in form of a letter from a bank or other reliable institution or from the sponsor's employer. (Photostatic copies of support statements furnished to meet another university's requirements are not acceptable.)

3. In addition to the sponsor's letter guaranteeing support, a $6,000 deposit is required for students from certain countries. Contact the Admissions Office for a list of these countries.

4. Test of English as a Foreign Language (TOEFL) must be submitted before admission will be granted. Minimum score for admission consideration is 550. Information concerning the TOEFL may be obtained by writing to: TOEFL, Box 899, Princeton, NJ 08540. Any student who has earned a bachelor's degree or higher at an accredited U. S. college or university is exempt from the TOEFL requirement.

Admissions

5. It is compulsory for international students on F-1 visas to carry medical and hospitalization insurance. Insurance for dependents is optional.

6. Students on F-1 visas do not normally have employment privileges. Government regulations require international students to certify that they have finances deemed sufficient by the university to pursue a full course of study without employment.

7. Holders of F-1 (student) visas must enroll for a full load of study. For undergraduate students or "undergraduate to qualify" for graduate studies, the minimum load is 12 semester hours. Graduate students are required to enroll in a minimum of 9 semester hours.

8. Students wishing admission to graduate programs must comply with all of the above requirements in addition to the graduate student requirements.

9. Students transferring from a U. S. college or university must have the former foreign-student advisor (or equivalent) complete Form FS2-73. These forms are available from the Admissions Office.

Summer School

Summer School Registration. Students enrolling for the first time at U. T. Permian Basin, as a summer school student, must furnish a letter of good standing, followed by a transcript showing college-level work completed. These requirements must be met whether or not students plan to continue their enrollment at U. T. Permian Basin the next semester.

Summer transient student or nondegree student. Students in good standing at another college or university may be considered for regular or special admission during the summer or for one of the long sessions. Only the transcript from the last institution will be required prior to enrolling at U. T. Permian Basin. A student will not be admissible if he is ineligible to return immediately to his former institution(s).

A student granted admission as a summer transient or as a nondegree student may enroll in subsequent terms to pursue a degree from U. T. Permian Basin. Official transcripts must then be ordered from all other universities previously attended and from which no transcripts have been requested for U. T. Permian Basin.

Admissions

Readmission

Readmission for former students. Former students must notify the Admissions Office of their intentions to return to U. T. Permian Basin. Notification of attendance at another institution(s) since their last enrollment at U. T. Permian Basin also must be made, and transcripts from those institutions must be submitted.

Students who have not attended U. T. Permian Basin for two or more terms or who wish to pursue a different major upon returning, must register with the Academic Advising Center before registering for classes.

A student who is not eligible to return immediately to his former institution is not eligible to enroll at U. T. Permian Basin. Normally a student who is dismissed for disciplinary reasons from another institution will not be admitted.

Transfer of Credit

Transfer of Credit

Undergraduate. As an upper-level university, U. T. Permian Basin offers only junior and senior-level courses for the bachelor's degree. Students must have completed prerequisites usually offered at the freshman and sophomore level before enrollment in most courses at U. T. Permian Basin. Students must complete lower-level requirements before the bachelor's degree can be granted. Coursework shown on transcripts from other academic institutions is subjected to two separate evaluations:

1. *For Admission.* Coursework is evaluated to determine the transferable credit for admission purposes. This evaluation is performed by the admissions officers during the admission procedure.

2. *Applicability toward degree requirements.* Coursework is evaluated to determine whether the student's lower-level courses provide the necessary preparation for upper-level courses at U. T. Permian Basin and to determine the applicability of previous upper-level coursework towards degree requirements at U. T. Permian Basin. This evaluation is performed by an academic advisor in the student's chosen field of study.

It should be noted that at least 120 hours of applicable college credits are required for the bachelor's degree; however, the requirements specific to a major area of concentration may result in a degree plan that exceeds that number. In short, the undergraduate degree-seeking student should approach a career at U. T. Permian Basin not in terms of what has been done elsewhere but in terms of what remains to be done at U. T. Permian Basin.

General Regulations

1. The college or university from which the credit is to be transferred must be accredited by a regional accrediting agency acknowledged by the State of Texas.

2. Courses transfer to The University of Texas of the Permian Basin on the same level and with the corresponding number of credit hours earned at another institution. Grades are never lowered in transfer. Credit for courses in which grades of D have been earned will be accepted for admission but in some cases will not be accepted as satisfying degree requirements.

3. When a course has been repeated for credit, the most recent grade and credit hours will be used to determine the acceptance of the course.

Transfer of Credit

Transfer of Credit

4. The following are not accepted by the university toward admission or degree requirements:
   a. Orientation, remedial English, remedial reading courses, remedial mathematics courses.
   b. General Education Development Tests on high school or college level.

5. Sectarian courses in religion are counted **for** admission purpo es **only**, but do not apply toward degree requirements. However, courses in the philosophy of religion or the Bible as a literary work are applicable as free electives.

6. Vocational and technology courses will be applied toward the admission requirements but acceptance for degree purposes will be determined on an individual course basis by the faculty advisor and/or Division Director.

7. Except for physical education majors, a maximum of 4 credit hours will be accepted in physical activity courses toward admission requirements and total credits toward degree. A maximum of four upper-level credits in ROTC can be accepted in lieu of physical education.

Junior/Community College Transfer Regulations. Junior/Community College degree programs do not always apply towards a degree program at U. T. Permian Basin. For a smooth transfer from a junior/community college to U. T. Permian Basin, it is suggested that the student seek advice on course elections from a U. T. Permian Basin faculty member in the prospective field of study, prior to their sophomore year at the junior/community college. This advice may help avoid unnecessary courses and ensure that all of the proper courses prerequisite to the U. T. Permian Basin degree program are taken. The Academic Advising Center will gladly arrange for a mutually convenient time for students to meet with the appropriate faculty member.

Courses will transfer from junior/community colleges under the following conditions:

1. Courses taken at a junior/community college cannot transfer as upper-division (junior or senior) credits.

2. While there is no limit to the number of credits transferable from a junior/community college, a student must earn a minimum of 54 semester hours of upper-level course work for a bachelor's degree. Thirty semester hours must be completed at U. T. Permian Basin.

Transfer of Credit

Transfer of Credit

3. The approved 'Transfer Curricula' courses will transfer as described by the Coordinating Board rules and regulations.

Upper-Level Transfer Regulations. Students who have completed 60 semester credit hours are usually admitted with junior standing. A student may be admitted with senior standing if 90 transferable credit hours have been completed and a minimum of 24 of those credits are in upper-level courses. Students with upper-level credit should note:

1. Normally, only courses with a grade of C or better will apply toward a degree.

2. A minimum of 30 semester credit hours must be completed at U. T. Permian Basin in order to earn a bachelor's degree. Of these, the last 24 credit hours must be in residence.

Correspondence and Extension Credit. The University of Texas of the Permian Basin does not offer correspondence courses. A student may apply toward a bachelor's degree correspondence or an extension credit (classroom) appropriate to the curriculum and entered onto a transcript of a regionally and state accredited college or university, subject to the following limitations:

1. The maximum transferable credit is 15 semester hours of correspondence credit, 30 semester hours of extension credit or 30 semester hours of correspondence and extension credit combined.
2. Only 6 semester hours in the major may be correspondence credit.

Credit by Examination (Advanced Placement). The university does not offer CLEP (College Level Examination Program) exams nor does it enter CLEP credit onto the U. T. Permian Basin transcripts. Up to 28 semester hours of lower-division credit will be honored for admission purposes. This credit must first be entered onto the transcript of a regionally and state accredited college or university.

The faculty advisor and/or Division Director will determine the applicability and the transferability of this credit for degree purposes.

Transfer of Credit

Transfer of Credit

Evaluation of Transfer Credit. Transfer credit is evaluated by the admission officer at the time the student is admitted to the university. Credit is further evaluated by the faculty advisor for degree purposes and a degree plan is developed.

Prospective students often have questions about transfer of courses. Students are invited and encouraged to seek advice about courses and degree programs from the admissions advisors and, if necessary, the student will be referred to the Academic Advising Center for consultation with faculty members in the student's prospective discipline.

Financial Aid

Financial Aid

U. T. Permian Basin has available a variety of scholarships, grants-in-aid, loans, federal work/study programs and other forms of institutional, private, state and federal assistance to students.

Assistance to students is awarded on the basis of merit and/or financial need. Merit requirements vary greatly due to the wide range of student assistance programs. Merit may include academic achievement or potential, competitive exam results, place of residence, ethnic background, affiliation with certain patriotic, civic or fraternal organizations. Students also may qualify for a scholarship by entering into an agreement to accept employment in a field related to the scholarship or grant. Financial need is established through the American College Testing Program's financial analysis service and/or as specifed by legislation in the case of public funds or by the donor in the case of private funds.

Students qualifying for financial assistance will be awarded an "assistance package" composed of one or a combination of loan, grant, work and/or scholarship aid. Students receive a portion of the total amount awarded at the beginning of each semester or summer term.

Once students receive financial aid through the university, they are not eligible to receive additional loans, grants or scholarships from other sources without consulting with the Financial Aid Office.

Students are eligible to renew their awards each year provided application is made, current need is re-established and funds are available. Completion of required forms is necessary with each initial or renewal year of application.

Student applicants accept responsibility for adhering to all university requirements regarding student aid upon signing their application for and acceptance of aid.

Satisfactory Academic Progress Requirements

The Educational Amendments of 1976 require that institutions limit federal aid to those students who, according to the institutional standards, are making satisfactory academic progress.

U. T. Permian Basin students placed on academic probation in accordance with the Academic Progress, Probation and Dismissal policy stated elsewhere in this catalog, will not be eligible to receive financial assistance. Students denied financial assistance under these circumstances will become eligible for assistance when the probationary status is lifted.

Financial Aid

Financial Aid

Each financial aid applicant is provided with a detailed policy during the application process.

Student Loan Programs

The codes G and U at the end of the paragraphs indicate that these programs are available for G - graduate or U - undergraduate or both.

Guaranteed Student Loan Program. Undergraduate applicants may borrow up to $2,500 each academic year. However, aggregate amounts must not exceed $12,500 for total undergraduate schooling. Graduate and professional students may borrow up to $5,000 per year. Aggregate amounts cannot exceed $25,000 for graduate and professional students including loans made to borrowers before becoming a graduate or professional student. In most cases, the interest is paid by the federal government at a maximum rate of nine percent per annum, with the student assuming the payment of interest and principal upon graduation when the student ceases to attend the university. The loan must be repaid. Payments begin six months after the borrower graduates or leaves school. Borrowers may be allowed up to 10 years to repay the loan. Applicants should begin looking for a lender as soon as they are accepted for admission by U. T. Permian Basin. G & U

Hinson-Hazlewood Student Loan Program. To be eligible for assistance under this program, a student must be a legal Texas resident, be in financial need and be accepted for enrollment at U. T. Permian Basin. G & U

Short-Term Loans. The Accounting Office can make limited loans to students for tuition and fees. In general, the maximum amount of such loans will not exceed tuition and fees and must be repaid within the first two months of the semester. If there are extenuating circumstances, extensions may be granted to the end of the semester in which they are awarded. No interest or other fees are charged against the principal except in cases of late payment. Applications must be negotiated at least one week prior to registration. G & U

Teacher Education Loan Program. A regularly employed teacher who returns to school for certification or endorsement in a primary or secondary grade subject with a shortage of teachers may receive a TELP loan of up to $1,000 per semester. The amount the practicing teacher may borrow per semester is prorated according to course load. A junior, senior or graduate student enrolled in an approved teacher education program also may be eligible for loans up to $1,000 per semester. A borrower may receive loans for no more than four regular semesters or summer semesters. The aggregate limit for amounts loaned to any borrower is $4,000.

Financial Aid

Students classified as juniors, seniors, or graduates who have a grade point average of 3.0 on a 4.0 scale in college courses taken prior to the semester in which the loan is disbursed may be eligible for a TELP loan. The 3.0 average must be obtained while the student is enrolled at least half time in an institution of higher education. The student borrower also must be a Texas resident and be enrolled at least half time. Finally, the student borrower must agree to maintain a grade point average of at least 3.0 on a 4.0 scale in courses taken after receiving a TELP loan, to become a certified classroom teacher, and to teach in a public elementary or secondary school in Texas. **G & U**

Future Teacher Loan Program. The Future Teacher Loan Program (FTLP) was authorized during the special session of the 68th Texas Legislature in the summer of 1984. The purpose of this program is to encourage students to seek certification in, and to teach, subjects designated by the State Board of Education as in critical need of teachers. The legislature provided $1 million for loans through the program. It is administered by the Coordinating Board, Texas College and University System. Institutions participating in the program include public and independent colleges and universities with teacher education programs. A portion of the fund is allocated to each institution for loans to its students.

A qualified undergraduate or graduate student may borrow up to $2,500 in a fiscal year. The aggregate limit of loans to any borrower is $5,000. A student qualifies according to financial need as determined by the Director of Financial Aid at the institution where the student is enrolled. Texas residency is required.

A qualified applicant for an FTLP loan must be accepted for admission into, or enrolled in, an approved teacher education program on at least a half-time basis. The applicant must be pursuing a course of study in a subject area critically in need of teachers and must have a grade point average of at least 3.0 on a 4.0 scale in courses taken while enrolled at least half time at an institution of higher education. Completion of these courses must occur no later than the semester prior to the semester in which an FTLP loan is sought. A student who receives, during the same academic year, a Teacher Education Loan is ineligible for an FTLP loan. **G & U**

Cancellation of the loan repayment in both teacher loan programs is possible under provisions in the program. Check with the Director of Financial Aid for further information.

Other Loan Funds. The Office of Financial Aid has information on several private loan funds for which U. T. Permian Basin students may qualify if they do not qualify for the state or federal loans described.

Financial Aid

University Grant Programs

Pell Grants. This is a federally supported program. Applicants must be prebaccalaureate students, U.S. citizens or permanent residents and be enrolled for a minimum of 6 credits. Grants may range from $200 up to $2,100 depending upon available funding. Applicants should expect notification of eligibility from the Pell Grants office within 6 weeks of application. **U**

Supplemental Educational Opportunity Grant. This is a federally supported program. Applicants are eligible for SEOG awards which range from $200 to $2,000 a year and $5,000 for a five-year period of study. Awards are available to undergraduate students attending U. T. Permian Basin at least on a half-time basis. **U**

Texas Public Education State Student Incentive Grant Program. This is a federal/state supported program. The TPEG-SSIG applicant must be a U.S. citizen, a national or permanent resident and otherwise eligible to pay Texas resident tuition, be enrolled for a minimum of 6 credits, and exhibit need of not less than $200 for the academic year. Applicants must file the Family Financial Statement with the American College Testing Program for determining financial need. No grant in this program will exceed $2,000 on behalf of any student during one fiscal year. **G & U**

Texas Public Educational Grant. Grant assistance under this program is offered to both graduate and undergraduate students who enroll full time and establish financial need through the American College Testing Program. **G & U**

Scholarships

Institutional Scholarships. In addition to loans and grants, scholarship funds are available under the auspices of the institution or from private sources. In most cases, scholarships are based on academic merit and financial need, with a number of new scholarships available based solely on academic merit.

Students desiring to take advantage of these opportunities should contact the Financial Aid Office for further information. In general, the application and award procedure for scholarships is as follows:

1. Complete an application for general scholarship aid obtained from the Financial Aid Office. This requirement must be met each year students desire to receive scholarship aid.

2. List the scholarship or scholarships in which the individual may be interested. The Office of Financial Aid can provide a list and details of all scholarship programs upon request.

Financial Aid

3. Along with the completed application, students may be required to submit at least two letters of recommendation. In those cases where the scholarship is based upon financial need, students must file the Family Financial Statement with the American College Testing Program or other financial data as per guidelines of the specific scholarship. Forms are available from the Financial Aid Office.

4. Upon receipt of the above information, the Financial Aid Office will forward the information to the university's scholarship committee for review. The committee will notify the Office of Financial Aid as to scholarship recipients.

5. The Office of Financial Aid then notifies each student of the specific scholarship and the amount of money to be received. Applicants for scholarships not receiving this type of aid will be notified accordingly.

Scholarships usually are awarded on a 9-month basis for a school year or per specification of a particular scholarship. Half of the award will be made each semester during the academic year. Disbursement authorizations may be obtained from the Financial Aid Office prior to the payment of fees during the registration process.

Students who receive scholarships that are nationally administered (i.e., National Merit, National Scholarship for Black Students) must initiate and maintain direct contact with the administering agency. The university's Financial Aid Office has no part in the distribution of these scholarships.

Available Scholarships

Alumni Association Scholarship - A one-time award made to an entering junior majoring in the discipline that corresponds with that of the outstanding alumnus of the year. $250/semester. Awarded Annually. U

AAUW-Midland Chapter - For any student enrolled with a minimum courseload of 6 hours. $300-400/semester. Two each year. G & U

AAUW-Odessa Chapter - For an Ector County resident who has a financial need. Must be working toward a degree. $200/semester. One each year. G & U

American Petroleum Institute - Full-time petroleum related majors who are Permian Basin residents with 3.0 minimum G.P.A. Amount and numbers varies. U.

Financial Aid

Available Scholarships

Caroll DeHay Memorial Scholarship - Based on academic achievement. Recipient selected by the Faculty of Accountancy. Amount varies. Awarded annually. U.

DPMA Scholarship - Available to full-time Texas residents majoring in Computer Science who maintain a minimum G.P.A. of 2.50. $250/semester. Awarded annually. Number of awards varies. U.

Education Club - Available to education majors who fully qualify for student teaching. $150/semester.

Jesse H. and Mary Gibbs Jones Undergraduate - Texas and New Mexico residents who live outside a 50-mile radius of Odessa. 3.0 minimum G.P.A. preferred, others will be considered. $500/year. Approximately twenty-five per year. May not be awarded in addition to other institutional scholarships. U

Jesse H. and Mary Gibbs Jones Graduate Assistantship - Applicants must be recommended by a U. T. Permian Basin faculty member who will supervise the graduate program of study. 3.0 minimum G.P.A. accepted. $1,500/year. Recipients will receive an academic award of $600 in scholarship stipend and $900 to be earned under the supervision of recommending faculty member. Approximately eight each year. G

Garland Jordan Accounting Scholarship - Based on academic achievement. Recipient selected by Faculty of Accountancy. $2,000/year. Awarded annually. U

William A. King Art Scholarship - Awarded to an art student who submits the best finished piece of art selected by a designated committee. $100/year. One each year. G & U

Law Enforcement - Awarded to full-time undergraduate students who indicate a sincere commitment to a career in law enforcement. $500/semester. Two awarded each semester. U

Nojem Libson - Available to any minority male or female student from Odessa College. $250-300/semester. Approximately four each year. G & U

Literature - For students who show promise in the field of literature. $200/year. One or two each year. G & U

Financial Aid

Available Scholarships

MASC - For Mexican-American students from the Permian Basin area. $250/semester. Must re-apply each semester. Number varies. Preference given to undergraduate students. **G & U**

Mrs. Paul Moss Journalism - For students with outstanding abilities in mass communications. Amount and number varies. **U**

W. D. Noel Class A - Available to children of El Paso Products Company employees. $800/year. Number awarded varies. **G & U**

W. D. Noel Class B - Available to Ector County residents. $600/year. Number varies. **G & U**

100 + - Available to any U.S. resident whose permanent home address is 100 miles or more from Odessa. $600/year. Approximately ten each year. **G & U**

Organizacion Hispana - Available to incoming junior level students who are Spanish majors with a minimum G.P.A. of 3.0. Applicant must be an active member of La Organizacion Hispana. $100/year.

Permian Basin Advertising Federation - Available to students majoring in mass communications, journalism, public relations, advertising, commercial art, radio, TV, who maintain a 3.0 G.P.A. or better. $250/semester.

Permian Historical Society Graduate Fellowship - Upon nomination by the History Faculty of The University of Texas of the Permian Basin, the Permian Historical Society awards up to six fellowships in business or regional history to full-time graduate students at U. T. Permian Basin. The amounts of the fellowships range from $4,200 to $7,200 per annum. Fellows pursue a course of study that includes the researching and writing of a thesis as part of their master's degree at U. T. Permian Basin.

Permian Honor - For honor students transferring from participating Junior Colleges. Awardees should maintain a 2.50 G.P.A. $250/semester. Approximately twenty per year. **U**

Phillips Petroleum - Available to any full-time student pursuing a career in engineering with petroleum-industry orientation or in earth science in the professional and technical geology options. These programs must include a course in geophysics. Minimum acceptable G.P.A. of 3.0. $200-500/year. Four to ten each year. **U**

Financial Aid

Available Scholarships

University Honor Scholarship - Available to Permian Honor recipients who retain eligibility to participate in PHS program at the university level. $200/semester. Number varies. **U**

U. T. Permian Basin Merit Award - Applicants must rank in the top 20% of graduating class at a participating community college. Highest G.P.A. will be considered in lieu of class rank when applicable. $400/semester. Approximately 15-25 per year. **U**

Uptown Business and Professional Women's Club - Available to a Midland County resident with financial need. Recipient must maintain a G.P.A. of 3.0 and enroll in a minumum of 6 semester hours. Amount varies. Awarded annually. **U**

Other Financial Aid

Potts & Sibley Foundation - Applicants must qualify as a member of the Midland-Odessa Symphony Orchestra; be a string major. $500/year. Number varies. **G & U**

Presidential Scholarship - Awarded to junior college transfers in the top one percent of their graduating class. $1,500 each year for two years. Several one-time awards become available throughout the year. **U**

A. J. Schill - For students concentrating in special education who have a financial need. $250/semester. One each year. **G & U**

State Scholarship for Ethnic Recruitment - For Texas residents who are undergraduate minority students with a minimum G.P.A. of 2.75 at the last school attended. Available only to transfer students. Need based, one-time awards. $500-1,000/year. Awarded annually. Number varies. **U**

State Society of CPA's Local Chapter - Based on academic achievement. Recipient is selected by the Faculty of Accountancy. $1200/year. **G & U**

College work/study program. Undergraduate and graduate students with exhibited financial need are eligible for assistance under this program. Both full-time and part-time students may participate. Under this program, students may earn up to one-half their educational expenses while attending U. T. Permian Basin. The average award for an academic year is about $1200. Usually jobs are available with public and private nonprofit organizations. The maximum number of hours a student may work normally does not exceed an average of 19 per week. During vacation periods and summer periods, students may work up to 40 hours per week with prior

Financial Aid

approval of the financial aid director and the budget head under which they are assigned. Every effort is made to place students in jobs under this program according to their skills and qualifications. The pay rate is the minimum wage required by law but may vary upward with the type of job and qualifications. **G & U**

Fee waivers. Students who meet the state requirements for fee waivers under the Hazlewood Act for veterans, blind and deaf students, children of war prisoners, and children of disabled fireman and peace officers should contact the Office of Financial Aid for detailed requirements and consideration under this program. **G & U**

Institutional part-time work. There are positions available through the university for students whose financial resources are such that they do not qualify for the college work/study program. For information regarding part-time employment with the university, students should contact the Financial Aid Office. **G & U**

Off-campus employment. The Career Services Office operates a centralized referral agency for students desiring to obtain employment off campus. This office maintains a listing of available jobs and employers as a service to both the student and the employer. **G & U**

Veterans Education Benefits. The university participates in all aspects of the Veterans Administration programs available to returning veterans enrolling as students. A veterans advisor under the auspices of the Veterans Administration Program is available for individual consultation and assistance on the U. T. Permian Basin campus. The advisor is located in the Registrar's Office. **G & U**

Texas Rehabilitation Assistance for Students. The Texas Rehabilitation Commission (TRC) offers assistance for tuition and nonrefundable fees to students having certain disabling conditions provided their vocational objectives have been approved by a TRC counselor. Examples of such conditions are orthopedic deformities, emotional disorders, diabetes, epilepsy, heart conditions, and the like. Other services are also available to assist handicapped students in becoming employable. Application for such service should be made to:

Texas Rehabilitation Commission
701 East Seventh Street
Odessa, Texas 79761

Financial Aid

Financial Aid

The University of Texas of the Permian Basin does not discriminate on the basis of handicap in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations. The designated coordinator for university compliance with Section 504 of the Rehabilitation Act of 1973 is the Director of Personnel.

Registration

Registration

Students are encouraged to visit with faculty advisors during the fall and spring semesters for degree and class schedule planning. At announced times, students will be permitted to advance register for courses in the subsequent term. Advisors in all disciplines are available during registration. The Academic Advising Center will assist students to identify and contact their faculty advisor. Late registration begins on the first day of class and ends on the 10th day of classes (4th day of summer session classes). Students may not register for conventionally taught, partially self-paced or contract study courses after those dates. Students must be offically enrolled at U. T. Permian Basin in the semester in which they graduate. Students may not register as ENCORE students for contract study, self-paced courses, thesis, research or practicum.

International students must meet additional requirements dependent upon the type of visa they hold and other factors. Therefore, international students should contact the Office of Admissions for further information.

ENCORE

Persons who do not desire to pursue a degree or course credit may enroll in one or more regular courses at the university without declaring a major and a degree goal. These students may enroll as ENCORE students which allows them to attend the classes and participate in the discussion, studio and laboratory work. There is no requirement to complete work outside the classroom or sit for exams. Upon completion of the course, the student will receive a grade of NG (no grade). Credit earned in this program does not count toward a degree and does not carry the university's sanction as transfer credit. The student must notify the Registrar by the last day of registration of his intent to enroll as an ENCORE student.

Regular students enrolled in the university also wanting to select one or more courses in this program may do so but they should understand that the course will not transfer nor count toward a degree. The degree and credit regulations stated above also apply to students matriculated in a degree program.

Students applying for this program are not required to meet all admission requirements. For further information about ENCORE, contact the Admissions Office.

Registration

Continuous Registration (self-paced coursework)

A substantial number of courses are offered on a self-paced instruction basis. Students may enroll in the university and register for these courses at any time up to four weeks prior to the last day of classes during the regular semester. During the summer an equivalent date will be determined for the summer term. Please refer to the summer calendar in the class schedule for specific dates.

Registration for self-paced instruction courses alone does not involve a late registration fee, unless it is the student's initial registration for that particular semester. Students must finish the self-paced course within the given semester or reregister for the same course in a subsequent semester. At the end of each semester, a grade is assigned. If work for a self-paced course has not been completed but satisfactory progress is underway, the student usually is assigned a grade of **Z**. The student must reregister for the course the next time it is offered to earn a letter grade and credit in the course. The initial **Z** grade will remain on the record.

Concurrent Enrollment

Students who wish to enroll concurrently at U. T. Permian Basin while attending another institution should apply for special admission if they have not completed necessary lower-division courses. U. T. Permian Basin normally limits concurrent enrollment to community colleges. Students desiring credit for concurrent enrollment at another four-year or upper-level institution must have the prior express permission in writing from the appropriate Division Director before enrollment.

When a student registers at more than one public institution of higher education at the same time, his tuition charges shall be determined in the following manner:

Section 54.062 of the Texas Education Code provides that if the minimum tuition charge at the first institution is the same as or greater than the minimum tuition charge at the second institution, then no minimum charge is to be assessed by the second institution but rather, only the per-hour charge for the courses involved will be assessed by the second institution.

Registration

Registration

The same section however, requires that the student shall first register at the institution with the lower minimum tuition charge and that the second institution shall assess only the difference between the tuition charge at the first institution and those of the second institution, except that in no case shall the student pay the second institution less than the hourly rate of the courses involved.

In Absentia Registration

A candidate for a degree who has completed all the courses and other requirements for graduation and who must register in the university for the purpose of having a degree conferred, must register *in absentia.* This is the only purpose for which a student may register *in absentia.* After registration for credit during a semester or summer session, a student wishing to change to *in absentia* status must have the request approved by the student's academic Division Director and processed through the add/drop procedure. All fees, less the *in absentia* fee will be refunded if the change is made during the first 12 class days. After the 12th class day, no refunds will be made and no additional charge will be assessed for the *in absentia* fee. The university ID card and original paid fee receipt must be returned before a refund can be issued. No refund is made for the cancellation of an *in absentia* registration.

If the student requests a change from *in absentia* status to regular registration for courses, *in absentia* fees paid will apply toward the tuition due. If an *in absentia* student withdraws from the university, the fees paid will be refunded on the same percentage basis prorated over the same first week of the semester as regular tuition and fees.

Class Hours & Extension Classes

The class day begins at 8 a.m. and ends at 9:45 p.m. Unlike some universities in which courses offered after 5 p.m. are provided through an extension division, U. T. Permian Basin offers courses in the late afternoon and evening as part of the regular offerings. Students enrolling in these courses register in the same manner as students who are taking only daytime courses. Full-time students may have both day and evening classes.

Academic Advising Center

Academic Advising Center

All undergraduate students begin their advising process in the Academic Advising Center. After admission to U. T. Permian Basin, every degree-seeking student is assigned a faculty advisor to assist in curriculum planning. Regardless of major, every student seeking a degree must register with the Academic Advising Center in the first semester attended. Non-degree students or undetermined majors should contact the Academic Advising Center if desiring to change status. Advisors in this office assist students in the selection of courses when necessary, and answer questions concerning change of majors, degree plans, transfer credit, and general academic requirements, policies, and procedures.

Degree Plan. All students working toward a baccalaureate degree must complete a degree plan prior to the end of the first semester enrolled at U. T. Permian Basin. Degree plans originate in the Academic Advising Center where students are assigned a faculty advisor to guide them through their educational career. The Academic Advising Center will check lower level hours and requirements and, if necessary, explain any deficiencies which need to be completed. The student and the faculty advisor will then have a conference and develop the student's degree plan. The official degree plan must be filed with the Acadmic Advising Center. Students are encouraged to visit their faculty advisors and instructors whenever the need arises. Instructors have posted office hours and students may make appointments if they wish. The student is responsible for insuring that each course to be applied toward a degree plan has the approval of the faculty advisor or Division Director.

A teacher certification plan is not a substitution for a bachelor's degree plan. Students preparing for teacher certification must follow all regulations pertaining to teacher certification as outlined by the Education Office.

Change of Majors. If a student desires to change his major, he must complete the proper form in the Academic Advising Center. His academic record will be re-evaluated under the current catalog and he will be assigned a new faculty advisor. His new degree plan must meet the specific requirements for the new major as stated in the catalog in effect at the time of the change of major.

Degree Checks. The Academic Advising Center will process degree checks for graduation. Two semesters prior to the intended graduation, a preliminary degree check application should be filed with the Academic Advising Center. This form initiates the graduation process and the faculty advisor will then check to determine what degree requirements remain to be completed prior to graduation. The faculty advisor may or may not require that the student be present when completing the degree check.

Degree Requirements

Degree Requirements

Minimum university requirements for the baccalaureate degree are specified by the faculty and range from a minimum of 120 to 140 semester credits. At least 54 semester credits (57 in the Division of Business Administration) must be at the junior and senior level to fulfill the requirements of the degree program. The student must have a C average (GPA 2.00) or better and no F grades in any credits required for the degree. Any D grades in any credits earned at U. T. Permian Basin and presented for the degree must be offset with an appropriate number of B or A credits. **There may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. All students in degree programs must consult with their advisor or Division Director to determine the course applicability toward their degree.**

A student must make a grade of C or better in all courses in the major. Courses in which a D was made must be repeated and at least a C obtained.

Engineering majors must earn a C or better in engineering courses as well as support courses in related areas (science and mathematics) in order to receive credit.

Students seeking a BBA degree must earn grades of C or better in business courses.

A minimum of 30 credits must be completed at U. T. Permian Basin of which at least 6 of the minimum must be advanced credits in the student's major field. Of the last 30 credits earned toward a degree, at least 24 must be completed at U. T. Permian Basin. See "Credit for courses taken elsewhere."

Students may obtain a degree according to the course requirements of the catalog in force at the time of admission to the university (so long as the courses required for the degree are still offered by the university) or of the course requirements of a later catalog in force during the period of enrollment. This option shall be available for a six year period dating from the time of the initial admission of the student to the university. If a student drops out for one or more semesters and returns to U. T. Permian Basin as a former student he or she may choose to use the catalog in force at the time of re-entrance, thereby beginning a new six year time limit. This regulation applies to degree requirements, but not to operating regulations, procedures, and fees.

***In absentia* registration.** A candidate for a degree who has completed all the courses and other requirements for graduation and who must register in the university for the purpose of having a degree conferred, must register *in absentia*. This is the only purpose for which a student may register *in absentia*. After registration for credit during a semester or summer session, a student wishing to change to *in absentia* status must have the request approved by the student's Division Director and processed through the

Degree Requirements

Degree Requirements

add/drop procedure. All fees, less the *in absentia* fee will be refunded if the change is made during the first 12 class days. After the 12th class day, no refunds will be made and no additional charge will be assessed for the *in absentia* fee. The university ID card and original paid fee receipt must be returned before a refund can be issued.

No refund is made for the cancellation of an *in absentia* registration. If the student requests a change from *in absentia* status to regular registration for courses, the *in absentia* fees paid will apply toward the tuition due.

Government & history. Texas law requires that all students who receive a bachelor's degree from U. T. Permian Basin must earn 6 semester credits in American government, including federal and Texas constitutions, and 6 semester credits of American history (3 semester credits in the history of Texas may be substituted for 3 of the American history credits). These usually are completed at the lower division; however, these requirements may be completed at U. T. Permian Basin.

Writing and conversation. Every student pursuing a bachelor's degree should be able to write the English language and to hold a conversation with another person in English.

Lifetime sports. Every student is encouraged to enroll in lifetime sports. A maximum of two credits may be applied as electives toward requirements for a bachelor's degree.

Summary Requirements for Bachelor's Degree

Summary of University Requirements for Bachelor's Degree. To meet the requirements for graduation, the student must:

1. Complete the total number of semester credit hours established for the chosen degree program. The minimum number is 120 semester credits with 54 at the upper level (57 in some programs).

2. Have earned all transfer credits at a regionally accredited college or university.

3. Complete six credits in American government (including Texas constitution) and six credits in American history.

4. Demonstrate proficiency in writing the English language in their coursework.

Degree Requirements

5. Demonstrate proficiency in conversation in English in their coursework.

6. Maintain at least a C average in all courses applicable toward degree.

7. Obtain a grade of C or better in all courses in the major field of study.

8. Complete at least 24 credits in the major (more in most curricula), at least 18 of which must be upper level; at least six credits in the major must be taken at U. T. Permian Basin. Of the last 30 credits earned toward the degree, at least 24 must be in residence.

9. Complete a minor of at least 18 credits, 12 of which must be upper level, in one field or closely related fields (distributed minor). A minor will be granted only if it is offered by U. T. Permian Basin. The following programs do not require completion of a minor:

   (a) Teaching Certification
       Elementary
       All-level
   (b) Bachelor of Business Administration
       Accounting
       Finance
       Land Management
       Management
       Marketing
   (c) Bachelor of Arts
       Humanities
       Art (the 49 art-credit program only)
   (d) Bachelor of Science
       Control Engineering
   (e) Second bachelor's degree
   (f) Double majors

10. Initiate a degree check with the Academic Advising Center one semester prior to the semester of expected graduation.

11. Complete and file an application for graduation the expected term of graduation. Pay the graduation fee.

12. Be registered in the University during the semester or term of expected graduation. See "*In Absentia* Registration."

Degree Requirements

Graduation with Honors

Recipients of the baccalaureate degree are eligible for graduation with honors if they qualify under the following criteria:

1. They are the top ten percent of the graduating class for that academic year (summer, fall and spring).
2. They have completed the minimum number of semester credit hours (54) at U. T. Permian Basin as specified in the catalog under which they plan to graduate.
3. They have attained a cummulative grade point average of at least 3.50 for all courses completed at U. T. Permian Basin.
4. Second Bachelor's candidates and Master's candidates are not eligible for this honor.

All students earning degrees will be grouped in the following way for the purpose of determining class rank (top ten percent):

	Degrees awarded by these Divisions
Group One	Humanities and Fine Arts Behavioral Science and Physical Education
Group Two	Science and Engineering
Group Three	Business Administration

Centers for Learning Resources

Centers for Learning Resources

The Centers for Learning Resources provide tools and services to the faculty, staff and students to facilitate learning and research. The Centers operate through three individual components: library services, instructional media services and computer services. These components operate as follows:

1. **Library Services.** The library services component contains a rapidly expanding collection of more than 500,000 volumes of books, microform and periodicals. The library subscribes to approximately 1,200 periodicals and newspapers and maintains a collection of video tapes, audio cassettes, motion pictures, records, simulations, kits and even complete self-paced courses. The library services component acts as the distribution center for all learning materials and maintains listening and viewing carrels as well as television receivers for video tapes and many other learning innovations.

   In addition, the library has a special collections room which contains items relating to the history of the Permian Basin, a sizeable collection of materials by and about J. Frank Dobie, manuscripts of major Texas writers, a Texana collection which supports in-depth research in Texas history and culture, a Spanish language collection, and the University archives.

2. **Instructional Media Services.** To enhance teaching and learning, instructional media services provides a wide array of teaching technology, such as audio and video recording services, video cassette distribution, production of audio and video tapes and film loops, and graphic art work.

3. **Computer Services.** Computer services serves the university community through a remote job entry computer that is on line to the University of Texas Regional Computer Center in Dallas. The computer is available for use by faculty, staff and students to support coursework, research and records management. The computer services' staff is available to assist the user in solving data processing problems.

Career Services

Career Services

The U. T. Permian Basin Career Services Office provides a liaison between students seeking positions in their respective career fields and employers. Students contacting the Office for assistance will develop a file containing details of their education, background, work experience, faculty recommendations and other pertinent information. These credentials are provided to prospective employers but only upon the student's request.

Career services are available to seniors, graduate students and alumni.

The Career Services Office has information available on local, regional and national career opportunities and in many cases will have recruiters on campus for personal interviews.

Students desiring to utilize this service should register with the Career Services Office during the fall semester of the year they expect to graduate.

Student Life

Student Life

Student services is concerned with programs and events which complement learning experiences and which provide diverse opportunities for students to grow academically, professionally and personally. Student services are related specifically to the varied student population at U. T. Permian Basin. The programs and events address themselves to a broad range of interests and personal needs of the student body. To this end, the student services staff seeks student ideas and help in planning and staging campus events, programs and services.

Student Senate. The Student Senate of U. T. Permian Basin is the legislative body representing the interests and needs of the student body. The Student Senate is recognized by the administration of U. T. Permian Basin and by the Board of Regents of the UT System as the elected governing body for students at U. T. Permian Basin. The Student Senate recommends allocation of the Student Services Fee and makes recommendations to the administration on policies that affect the student body.

The president and vice-president of the Student Senate are elected by the membership of the Senate each spring to serve the student body for the subsequent academic year. Senators, representing their academic divisions, are elected at the end of September to serve through August. Candidate registration forms are available at registration or by contacting the Student Senate Office.

Program Board. The Program Board is responsible for identifying, budgeting and developing the educational, cultural, social and recreational programs for the student body. This responsibility is performed through the existence of five program committees: Lecture, Cultural, Social, Intramural/Recreation, and Clubs and Organization Development.

The Program Board Chairman is nominated by the student body and is elected by the Student Senate. Program Committee directors and Program Committee members are recruited volunteers from the student body.

Clubs & Organizations. Students are encouraged to develop an organization that unites students for a common cause or interest. U. T. Permian Basin has approximately 25 clubs and organizations registered that represent academic disciplines, special interests and political party affiliation. These organizations allow students to pursue specialized interests and have an opportunity to interact with classmates and professors in an atmosphere different from that of the classroom.

Student Life

Student Life

The Office of Student Life is responsible for the registration of these organizations. The Office of Student Life publishes a handbook for the development of clubs and organizations.

Publications. The dissemination of news and information of student interest and the publication of literary and artistic student work is supported by Student Services.

The Sandstorm is an annual magazine-yearbook publication. *The Sandstorm* is a collection of poems, short stories and essays submitted by students and selected by a panel for publication. The magazine also prints photographs of student art that includes painting, sculpture, pottery and photography.

The Sandstorm is a student publication with its editor and staff selected from the student body each September. Applications for editor are received from returning students and incoming transfer students with publication experience.

The Mesa Journal is the student newspaper for U. T. Permian Basin. It is a bi-monthly newspaper which publishes news and information regarding the university and its students. *The Mesa Journal* provides an opportunity for students to gain newspaper journalism experience while attending the university. It serves the university as an academic tool through the Mass Communications discipline and as an information service to the students.

The editor and staff for *The Mesa Journal* are selected from the student body. The newspaper staff receives professional advice from the faculty of Mass Communications. It receives financial support from the Student Services Fee and through advertising revenue.

The Gymnasium/Pool Complex. This complex is a three story building designed for recreational use by students, faculty and staff and their families. Dependent family members of students may use the Gymnasium/Pool complex for a nominal fee.

The Gymnasium/Pool Complex consists of 4 racquetball courts, 2 volleyball and badminton courts, a tennis court and 2 basketball courts. The complex has an exercise room equipped with a Universal Gym Weight machine, dance bars, floor exercise mats and a full wall mirror. The complex includes a 50 meter swimming pool which is heated continuously to a temperature of 82°. It is open most of the year.

Student Life

In addition, there are 2 outdoor tennis courts, 5 outdoor racquetball courts, an athletic field and a 1.8 mile fitness trail.

Health & Accident Insurance. Although personal health is the responsibility of each individual student, all students entering the university are encouraged to carry health and accident insurance. The university makes available at minimal cost a voluntary health and accident insurance program for students. Further information may be obtained by contacting the Student Life Office. All international students must have health insurance.

Because of excellent community medical resources, the university does not provide on-campus medical services.

Housing. The university has a number of three-bedroom mobile units available for single or married student rental. Efficiency units are also available for single occupancy. Each unit is fully furnished and has central heating and air conditioning. Rental rates are reasonable and vary according to accommodations desired. The units are located on south campus and are within walking distance of the university. While generally available on a first-come, first-serve basis, preference is given to students who live outside a reasonable commuting distance. Additional information and housing applications are available through the Student Housing Office.

Conduct. The University considers all students to be adult; therefore, their behavior is subject to all expectations of the University of Texas Regents, U. T. Permian Basin rules and regulations as well as local, state and federal laws. The university reserves the right to restrict the enrollment of any student for disciplinary or academic reasons. Further information regarding the university's rules of conduct and due process procedures is provided in the Student Handbook and the Faculty Handbook.

Rights to Privacy. The university complies with the privacy rights of students as set forth in the Family Educational Rights and Privacy Act of 1974, Title 12 U.S.C. Section 1232g. Students are informed of their privacy rights when they register for classes during the regular academic year.

Auxiliary Services

Auxiliary Services

Bookstore. Textbooks and academic supplies may be purchased on campus at the university Bookstore. Costs of such items will depend on the courses selected.

The university Bookstore will purchase used textbooks from students which are in good condition provided that such textbooks continue to be used by the various departments. Buy back periods are limited to the final week of fall and spring semesters, and the last day of finals for summer sessions.

Cards, gifts and sundry items also are available for purchase.

Food Service. The university operates a small snack bar food service off the main lounge on the ground floor of the classroom building. Normally, the service is available whenever classes are in session during the day and evening. The service is not available on weekends nor during vacation periods.

Psychological Services. Psychological services are available to students free of charge through the Center for Behavioral Analysis. Students who are interested in acquiring better study skills may use the services of the Center.

Tuition, Fees & Deposits

Tuition

All tuition is subject to change by the Legislature without prior notice.

Resident (in-state) ..... $ 16.00 per semester credit hour
Nonresident (out-of-state) ..... $120.00 per semester credit hour
Foreign Student (international) ..... $120.00 per semester credit hour

Exceptions

1. Nonresident or foreign students who are recipients of a competitive academic scholarship in the amount of $200 or more awarded for the academic year or the summer term by U. T. Permian Basin may pay the in-state tuition rate.

2. Nonresident students who hold appointments as graduate teaching assistants or graduate research assistants may pay the in-state tuition rate provided they are employed half time or more in positions which relate to their degree programs.

Texas Residency for Tuition. To establish residency, a student must reside and be gainfully employed in the state 12 months preceding registration in an educational institution. Students claiming residency by virtue of parental dependency must provide sufficient documentation to support the residency claim of the parent. Foreign students must have been granted permanent residency or citizenship status by the Immigration and Naturalization Service one year prior to consideration for Texas residency. Residency is determined by state statutes and in accordance with the guidelines promulgated by the Coordinating Board of Texas Colleges and Universities. The Registrar determines all residency classifications. To appeal the decision of the Registrar in residency matters, students may present their case to the Dean of Students. If students wish to appeal that decision, they may address the President of the university whose decision is final.

Refund of Tuition and Fees for Students Withdrawing from the University or Reducing Courseload. Upon completing a withdrawal form or a course drop form and submitting it to the Registrar, the percent of tuition refund will be determined. Refund amounts are based on the total number of hours in which a student was originally enrolled and the total number of hours, if any, remaining on the student's schedule at the end of the refund period. Students who drop one or more courses during the 100% refund period, and who then withdraw before the end of the withdrawal refund period, will receive a refund amount based on the total number of hours in which they were originally enrolled and the percentage of refund authorized on the day of withdrawal. The rate of refund is as follows:

Tuition, Fees & Deposits

Tuition

1. prior to first class day from which a $15 matriculation fee shall be assessed	100%
2. during the first 5 class days	80%
3. during the second 5 class days	70%
4. during the third 5 class days	50%
5. during the fourth 5 class days	25%
6. after the fourth 5 class days	NONE

These rates of refund are prorated over the shorter terms of the summer.

All policies regarding the payment or refunding of tuition, fees and charges are approved by the Board of Regents of The University of Texas System and comply with applicable state statutes. If a person desires clarification of any matter relating to payment or refund of such charges, or believes special circumstances warrant exceptions to the published policy, the Registrar should be contacted.

Fees & Deposits

A student who fails to provide full payment of tuition and fees, including late fees assessed, to the University when the payments are due is subject to one or more of the following actions at the University's option:

a) Bar against readmission at the institution;

b) Withholding of grades, degree and official transcript; and

c) All penalties and actions authorized by law.

Students are not entitled to enter a class or laboratory until their fees and deposits have been paid. Payment may be made by personal check for the exact amount due, provided the bank transit number is encoded thereon in compliance with revised Federal Reserve Bank regulations. Checks for larger amounts, the difference to be paid in cash to the student, cannot be accepted. In paying fees by check, students should exercise care. A bad check, whether given by mistake or otherwise, unless the admitted error of the bank concerned, is likely to delay actual payment and thus result in a penalty for late registration. Fees may be paid and books purchased by charging on VISA and Mastercard accounts.

Tuition, Fees & Deposits

Fees & Deposits

All fees are subject to change by the Legislature or Board of Regents without notice.

Student services fee. The Student Services Fee is compulsory for all students. The amount charged is $6.50 per semester credit hour for 1-11 credits. Students registered for 12 credits or more are charged a maximum of $78. Students who register for the summer session are charged on the same basis as students registered during the regular academic year. The fee provides funding for extra-curricular activities and events designed to augment student life at U. T. Permian Basin and reservation privileges to the Gymnasium/Pool Complex.

Part-time students desiring the same privileges and additional benefits may pay the full Student Services Fee. Students registered *in absentia* are not eligible to participate in student services and programs unless the regular fees are paid. The Student Handbook publishes the available programs, activities and services that the fee provides. This handbook is available at registration or from the Office of Student Life.

Refund of the Student Services Fee to students withdrawing is made on the same basis as refund of the registration and tuition fees.

General fees. An assessment for a general fee is made on the basis of $6 per semester credit hour to all students registered for resident credit. Refund of general fees to students withdrawing is made on the same basis as refund of the registration and tuition fees.

Parking permit fees. Students will register their cars in a single payment for the entire school year or the balance of the school year in which they register, whichever is applicable. School year is September 1 through August 31. The following fees will be charged: passenger vehicles and trucks: $10.00 per year; $7.50 January 1 through August 31; $5.00 June 1 through August 31. Two-wheel vehicles (motorcycles, motorscooters, motorbikes): $5.00 per year; $3.00 January 1 through August 31; $1.00 June 1 through August 31.

The replacement fee is $3.00. Temporary (monthly) permits may be issued for $1 or any portion of a month in excess of 14 calendar days.

Laboratory fees. For each laboratory course a fee is charged in an amount to cover, in general, the cost of laboratory materials and supplies used by a student; however, such charge per student shall be not less than $2 nor more than $8 for each laboratory course in any one semester or summer term. The course schedule will indicate the amount of the laboratory fee for each course.

Tuition, Fees & Deposits

Fees & Deposits

Supplementary fees, in the case of students withdrawing or dropping a course, are refunded according to the schedule provided for refunding of registration and tuition fees. Exception: A student who officially drops a course with a supplementary fee and at the same time officially adds another such course will receive a refund of the full supplementary fee paid on the course dropped and will pay the corresponding fee required for the course added.

Special charge for late registration. Any student who, with proper permission, registers after the scheduled registration in that semester, will be required to pay a special charge of $5.

Bad checks. A service charge of $10 will be assessed for each returned check.

Graduation fee. A graduation fee of $12 is charged to graduating students at the beginning of the semester they plan to graduate. Students should notify the Academic Advising Center and the Registrar as soon as they know they will not be graduating in the semester for which they applied. The graduation fee is a non-refundable fee. If the student cancels the graduation application after the 12th class day of the semester (or equivalent date during shorter terms) the fee must be paid again the subsequent term when reapplying for graduation. If the student fails to meet the degree requirements in the term for which they plan to graduate, the fee must be paid again upon reapplication in a subsequent semester.

***In Absentia* fee.** The fee for *in absentia* registration is $25.00. The fee is assessed to those students who need to register in the university for the purpose of having a degree conferred, but not for courses. No refund is made for the cancellation of an *in absentia* registration. For more information regarding the *in absentia* fee, see "Undergraduate and Graduate Degree Requirements."

Transcript service charge. There is a transcript charge of $1 for each university transcript ordered and given routine processing. A transcript service charge of $2 is levied for special handling or over-the-counter transcript service.

Supplementary fees for selected courses. Students taking selected courses (e.g., studio art, courses requiring field trips, lifetime sports, physical education, computer science or applied music) may be required to pay supplementary fees each semester.

Tuition, Fees & Deposits

Tuition

Student identification card replacement fee. All students who need a replacement student identification card will be charged a $3 service fee pending approval by The University of Texas System Board of Regents. This is not a purchase fee. The student I.D. card is the property of U. T. Permian Basin and return may be required upon the student's withdrawal from the university, when it has been put to fraudulent use, or at other times determined appropriate by administrative officers of the university.

Tuition Installment Policy

Sec. 54.007(b) Education Code

Section 54.007 of the Texas Education Code authorizes the Board of Regents of The University of Texas System to provide for the payment of tuition and fees during the fall and spring semesters through the following alternatives:

Option 1: Full payment of tuition and fees in advance of the beginning of the semester.

Option 2: Payment of one-half (½) of tuition and fees in advance and one-half (½) of tuition and fees prior to the start of the eighth class week.

There will be a $12 incidental fee assessed if this option is used and a $10 late fee plus 10% interest per annum on the unpaid balance for a payment not made before the start of the eighth class week.

Option 3: Payment of one-fourth (¼) of tuition and fees in advance and one-fourth (¼) each prior to the start of the fourth, eighth and twelfth class weeks.

There will be a $12 incidental fee assessed if this option is used and a $10 late fee plus 10% interest per annum on the unpaid balance for a payment not made before the start of the fourth, eighth, and twelfth class week."

The law further states that: "A student who fails to make full payment of tuition and fees, including any incidental fees, by the due date shall be barred from classes until full payment is made. A student who fails to make payment prior to the end of the semester may not receive credit for the work done that semester. University records may be adjusted to reflect the student's failure to have properly enrolled for that semester."

Academic Regulations

Academic Regulations

The Dean of Admissions determines a student's eligibility for admission to U. T. Permian Basin. After admission to U. T. Permian Basin, the student is assigned a faculty advisor who will assist in curriculum planning, as well as other matters related to the degree to be earned. The Academic Advising Center has forms to effect a change of major if students desire to do so. Faculty advisors are assigned by the Academic Advising Center.

The advisor in the discipline in which a student expects to study evaluates all previous coursework. A determination is made as to which of these courses apply toward the degree to be earned and the student is advised accordingly. Any questions about courses and degrees should be addressed to the advisor or Division Director.

Students are encouraged to visit their faculty advisors and instructors whenever the need arises. Instructors have posted office hours and students may make appointments if they wish. The student is responsible for insuring that each course to be applied toward a degree program has the prior approval of the faculty advisor.

Dropping & Adding Courses

Dropping courses should not be confused with withdrawing from all courses. In courses taught on a conventional basis, a student may drop the course any time up to the last day of classes before the scheduled final examination period. A course may be dropped without permission during the first 10 class days (4 class days in summer). Students must obtain the signature of the instructor whose course they are dropping if they drop the course between the 10th class day (4th class day in summer) and the last day to drop classes as given on the academic calendar. No credit will be awarded if the course is dropped.

Once a student has registered and paid tuition and fees for a course section, he/she is considered enrolled in that class until the class is officially dropped by the student at the Registrar's Office. This is considered cancellation of a contract and must be a written request signed by the student. Neither faculty, relatives nor friends may drop or add courses for a student. Add/drop forms must be completed at the Registrar's Office prior to the end of the last class day. Failure to drop a class, even if not attended, may result in a failing grade on the academic record. When dropping a course after the end of the 10th week (4th week in 6 week and 7th week in 11 week summer terms) a performance indicator (Pass/Fail) will be assigned with the drop grade. A "drop failing" grade will calculate in the Grade Point Average as an F. To determine the last day to drop with or without pass-fail indicators, see "University Calendar." For refund dates, see "Refund Policy."

Academic Regulations

Academic Regulations

Courses taught on a conventional basis may not be added after the 10th day of classes. Students enrolling late in a course should not expect special make-up assistance from the instructor. Partially self-paced courses are administered on the same basis as regular courses. The registration, drop-add, withdrawal, course completion and grading are administered as all other regular classes.

In the case of courses taught on a self-paced instruction (SPI) basis, students are encouraged to enroll during the semester registration time. However, courses taught on a SPI basis may be added up to four weeks prior to the end of the fall or spring semesters. An equivalent date will be established for the summer term as announced in the summer class schedule. After the late registration period, these courses may be added only with the permission of the instructor and the Division Director in which the course is taught. Students not completing an SPI course by the end of the semester must reregister and pay all applicable fees to continue the course in the next semester in which it is offered. Students may drop an SPI course at any time up to the last day of classes prior to the scheduled final examination week by completing the necessary forms. All regulations regarding grading and dropping or withdrawing from regular courses also apply to SPI courses.

Withdrawing from the University

Withdrawing from the university should not be confused with dropping a course(s) while remaining enrolled in others. Students desiring to drop every course in which they are enrolled are considered withdrawals. Students should secure a withdrawal petition from the Registrar's Office, complete it and obtain the signature of their faculty advisor, Division Director, the library and the Financial Aid Office. In cases of illness, students may have someone notify the Registrar who will arrange for withdrawal.

A completed withdrawal form must be submitted to the Registrar's Office prior to the final exam period. Failure to do so, even if no classes have been attended, may result in failing grades on the academic record. Withdrawals become effective the date the completed and signed form is received from the student by the Registrar's Office. When withdrawing from all courses after the end of the 10th week (4th week in 6 week and 7th week in 11 week summer term) a performance indicator (Pass/Fail) will be assigned with the withdrawal grade. A "withdraw failing" grade will calculate in the Grade Point Average as an F. To determine the last day to withdraw with or without pass-fail indicators, see "University Calendar." For refund dates, see "Refund Policy."

Academic Regulations

Academic Regulations

Students who have withdrawn from the university need not apply for readmission unless they have been absent from the university for more than 2 semesters. See "Admissions."

Credit by Examination

A portion of the lower-division requirements may be completed through the College Level Examination Program (CLEP) offered by the Educational Testing Service of Princeton, NJ. CLEP exams may be taken at several junior colleges, senior colleges and universities in the state, but not at U. T. Permian Basin. Students wishing to complete a portion of the lower-division requirements through CLEP must enroll in a college that offers them and sit for them there. If credits for CLEP examinations appear on the transcript of the college where students were enrolled, U. T. Permian Basin will accept credits earned through CLEP on the same basis as any other credits transferred from another institution.

U. T. Permian Basin does not award college credit for study through the United States Armed Forces Institute, noncredit military studies and non-accredited institutions; however, if an accredited college or university has awarded credit for such study, U. T. Permian Basin will accept those credits on the same basis as coursework completed at that institution.

Second Bachelor's Degree

An individual who already holds a bachelor's degree must complete a minimum of 30 additional credits to receive a second bachelor's degree and, in the process, meet all requirements for the second degree. No minor is required for a second bachelor's degree. A student desiring to complete two bachelor's degrees concurrently must complete all requirements of each degree program including a minimum of 30 credits more than required in one of the degree programs. In some instances, a student lacking lower-level courses which U. T. Permian Basin does not offer, will be required to complete these deficiencies at one of the area community colleges, in addition to the 30 or more credits which must be completed at U. T. Permian Basin.

Double Majors

Students electing to major in 2 fields must meet the specified requirements for each major and no one course can be counted in the semester hours credit in more than one major. In certain cases this may require completion of additional coursework. In addition, each major division must certify that the student has satisfied all major, as well as division requirements. No minor is required when completing two majors. Only one major and one degree will be shown on the diploma and only one diploma will be issued. Both majors will appear on the transcript.

Academic Regulations

Correspondence Credits

Up to 15 semester credits of correspondence study normally will be accepted from accredited colleges or universities if appropriate to the curriculum. Only by petition to the Division Director and on written approval of such a petition by the Director may additional credits be considered for evaluation and acceptance.

Class Schedules

Classes taught on a conventional basis usually meet 1 to 3 times per week. Courses taught on a self-paced basis may or may not meet formally.

Class Attendance

It is assumed that by the time students enroll at the university they are able to organize their time according to the demands of their studies. Class attendance is not required in most cases, but students are encouraged to attend classes regularly. In some courses, class participation constitutes a part of the student's grade. It is the responsibility of the student to determine whether class attendance is required in each course and to see that all of the course requirements are met. In this regard, veterans and international students are encouraged to check with the Admissions Office and the Registrar's Office for specific regulations governing their class attendance.

Waiving Requirement for Disabled Students

To ensure the quality of the degree which the disabled student receives, the university shall neither waive nor substitute degree requirements until all feasible methods have been explored. If it is clear that there are no means by which the student may complete a course or fulfill the degree requirements, then exceptions may be made.

Course Load

Each semester credit hour at U. T. Permian Basin represents a commitment on an average of three hours of "out of class" preparation and one hour of class attendance (or its equivalent) per week. For example, enrolling in a three-hour class commits the student to a total of twelve hours of work per week. Students who are employed or who have family responsibilities are especially encouraged to bear this commitment in mind and to seek guidance from their advisors in determining a suitable academic schedule.

Academic Regulations

Academic Regulations

For undergraduate students without substantial family or work responsibilities, the normal course load during the regular semester is 15 semester credits. Students making satisfactory academic progress may take 18 credits without permission of the Division Director; more than this requires permission of the Division Director. Only in rare cases will students be permitted to enroll for more than 21 credits in a semester and then only with the written approval of their Division Director.

During the summer session, undergraduates may enroll for 7 credits in a 6-week period. As a rule, in short courses of lesser duration, one may register for one credit per week of instruction.

The foregoing applies to conventionally taught courses. In courses offered on a self-paced instruction basis, additional credits may be taken, particularly when courses are involved for which a portion of the work has already been completed at the time of registration. This is subject to approval by the student's faculty advisor and the Division Director.

All international students must enroll as full-time students during the fall and spring semesters (12 hours minimum for undergraduates and 9 hours minimum for graduates). The student is not required to enroll in any courses during the summer terms. The international student may not drop or withdraw from courses at any time if such action would result in less than a full-time course load in the fall and spring semesters.

Satisfactory Scholastic Progress

Students are considered to be making satisfactory scholastic progress when they are carrying an approved schedule of classes, are not on probation, are not failing a course, and have a grade point average (GPA) of at least 2.0 or **C** (3.0 or **B** for graduate study) in both the current semester and in their overall average to date.

Grading

Grades at U. T. Permian Basin distinguish between levels of student achievement. They represent, in abbreviated form, the instructor's judgment of the student's academic progress. In addition, they provide a basis for certifying completion of all degree requirements. They may serve as predictors of future performance in graduate and professional study.

Grading Policies

Grading Policies

The grades approved for use at U. T. Permian Basin are as follows:

A = Superior achievement
B = High achievement
C = Average achievement
D = Minimal achievement
F = Failure to achieve minimal standard
\+ = High grade
\- = Low grade
S = Satisfactory
U = Unsatisfactory
I = Incomplete
Z = Acceptable progress: (SPI)
PR = Work in Progress (masters thesis/project)
Q = Dropped
QP = Drop passing
QF = Drop failing
W = Withdrawal from university
WP = Withdrawal from university passing
WF = Withdrawal from university failing
NG = No grade (ENCORE)

Only grades of **A, B, C, D, U, QF, WF and F** are included in computing grade point average (GPA): **A** = 4; **B** = 3; **C** =2; **D** = 1; **F** =.0. Pluses and minuses are awarded at the instructor's discretion but are not computed in GPA. The grades of **I, Q, QP, W, WP, S, Z, PR and NG** are not computed in GPA. The grades of **U, QP** and **WF** are all calculated as an **F** grade.

A grade of **I** or **Z** is reported when students have not met all requirements of a course by the end of the semester and the instructor considers the allowance of additional time to complete course requirements justified. When reporting an **I** grade, the instructor must complete an 'Incomplete Report' specifying: (1) the deficiency or the additional work to be done, (2) the length of time allowed to complete the work (no later than the last class day of the subsequent semester, summer excluded), and (3) the grade that would have been earned at the time the course ended. If the **I** grade is not removed, the **I** becomes a permanent **I** unless the instructor has indicated a grade that had been earned at the end of the course in which case the **I** grade automatically is converted to that grade. Students who register for a class and then fail to attend any class meetings or take any test, and who neither withdraw nor formally drop the course, may be assigned the grade of **F** at the discretion of the instructor.

Any course dropped after the **12th day** of the student's enrollment in the course requires the instructor's signature on the drop form. A grade of **Q** will be assigned for the final grade in courses dropped after the 12th class day (4th class day in the summer).

Grading Policies

Grading Policies

Beginning with the 11th week of classes, or its equivalent during the summer terms, (as announced in the summer class schedule) the student will be permitted to drop or withdraw from classes but a performance indicator will be assigned as part of the grade. These are:

QP = Dropped passing
QF = Dropped failing
WP = Withdrawal passing
WF = Withdrawal failing

The **QP** and **WP** do not enter into GPA calculation. The **QF** and **WF** will enter into GPA calculations as failing grades. Not the grade, but the effect of the grade can be removed by repeating the course. This applies to **F, QF, WF,** or any other low grade. The **QF** or **WF** will remain permanently on the record. Under this policy, only the most recent grade will count on the GPA, not the highest of two or more grades in the same course.

In self-paced instruction courses (SPI) in which a student makes satisfactory progress, but does not complete all requirements by the end of the semester in which first registered, the instructor may report a **Z** grade. Students desiring to complete the course must reregister in the semester when the course is next offered and complete all remaining requirements for the course during the semester. The grade of **F** may be awarded for unsatisfactory progress in self-paced courses.

While the **Z** grade carries no penalty, a high number may reflect poor schedule management. **Z** grades remain part of the permanent student record.

The grades of **S** and **U** are final grades used for student teaching, thesis research, master's projects, certain seminars, courses for demonstration of proficiency in writing and conversation, certain nondegree courses, and in a limited number of other courses which, upon petition, may be approved by the Division Director; otherwise, normal grading procedures apply.

Grading Policies

Grade Reports

The student grade report is a record of all coursework for the semester taken at U. T. Permian Basin. Grade reports are mailed, or grades may be picked up at the Registrar's Office approximately two weeks after the close of the fall and spring semesters and the second summer term. All first summer term grades will be held for dispatch at the end of the second summer term.

Dean's Honor Roll

To honor those students with outstanding academic achievement each semester, a list of students will be prepared as the Dean's Honor Roll. This will be publicized and also noted on the academic record.

Candidates for the Dean's Honor Roll must meet the following criteria:

1. They must be in the top 10% of the students ranked in each division below.

	Degrees awarded by these Divisions
Class One	Humanities and Fine Arts Behavioral Science and Physical Education
Class Two	Science and Engineering
Class Three	Business Administration

2. If the number of students earning a grade point average (GPA) of 4.00 exceeds 10% of the class, then the entire list of students earning 4.00 will be published.

3. They must be seeking a first bachelor's degree only.

4. The last 12 hours of work for part-time students is the basis of calculating this GPA. If the last 12 hours must include a previous semester load only partially, then that entire semester's courses will be used in the calculations.

Repeat Policy

All courses taken at U. T. Permian Basin, whether passed or failed, remain a permanent part of the student's record. If a course is repeated, the last grade earned, not necessarily the highest grade, will be the grade used to compute the cumulative grade point average (GPA) for all purposes. Repeated courses will be counted only once for credit.

Grading Policies

Academic Progress, Probation & Dismissal

Students with 12 or more hours of credit and a cumulative grade point average (GPA) of less than 2.0 and/or the equivalent of one semester of full-time enrollment with a resulting semester GPA below 2.0 (C) will be placed on academic probation. In cases of extenuating circumstances, students may appeal their probation to the Division Director.

Students on academic probation will have 2 semesters or 12 credits (whichever occurs first) to raise their GPA to 2.0. A full summer session will be treated as a regular semester. Failure to raise the GPA to 2.0 after 2 semesters on academic probation will result in dismissal from the university. In cases of extenuating circumstances, students may appeal their dismissal to the Division Director.

The first academic dismissal is for one semester not including summer sessions. A second academic dismissal is for 12 months. A third academic dismissal is for 36 months. To be readmitted after a dismissal, students must address a letter to the appropriate Division Director presenting evidence that they are likely to succeed in an academic program. Readmission must be approved by the Director. Students readmitted after dismissal will be on academic probation for the initial semester.

The grades **S, Z, I, PR, Q, W, QP, WP** and **NG** will not be included in the determination of probation but students should avoid accumulating grades of **I, Z, Q** or **W**, as they become a permanent part of the grade report.

Students admitted to the university on a conditional basis are considered to be on academic probation until they have successfully completed at least 12 credit hours with a GPA of 2.00 or better. After this, the student will be removed from probation. Students not obtaining a GPA of 2.00 or better, after 12 semester credits attempted, will be dismissed from the university under the same restriction as other academic dismissals.

Student Academic Appeal Procedures

The intent of the faculty and administration at U. T. Permian Basin is to ensure that every student receives fair treatment in the academic process.

When students believe they have received unfair treatment by a faculty member, they should first discuss the matter with the faculty member involved. If the student does not feel the problem has been resolved after discussion with the faculty member, they may pursue the matter further by directing a letter to the Division Director. The letter should state the problem, why they conclude fair treatment was not received and any evidence that would substantiate their claim. The President's Office shall constitute the final step in the appeal process.

Grading Policies

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Teaching Emphasis

Self-Paced Instruction (SPI)

Self-paced instruction (SPI) is designed to permit students to complete courses as rapidly as they are capable, or to take more time if needed to master them. SPI usually requires no formal class meetings, although in many courses the instructor meets once a week with a group of students desiring additional help. Most student-instructor contact in SPI is on an individual basis. Students enrolled in an SPI course are expected to interact with the professor either individually or in a group situation, at least once each week or as often as a given course requires.

Self-paced courses are offered in many fields or degree programs. Students in SPI courses are provided with a course outline including instructions for study, activities to complete, sources of information and other necessary instructions. Students may visit the instructor as often as needed to discuss and clarify questions. When students believe they have mastered a unit within a SPI course , they may take the appropriate test. If students pass at the prescribed level, they proceed to the next unit. In some courses, if students do not pass the unit, they may restudy it until they pass the test. Each unit must be passed in sequential order, so when all units and tests are successfully completed, students should have mastered the course material.

Since students may not need to attend class in SPI courses, they may begin such courses at any time up to four weeks prior to the end of the semester. Established deadlines for adding or dropping courses refer to courses taught only on a conventional basis and not to courses taught on an SPI basis. SPI courses may not be dropped during final examination week. Although students have the option of continuing an SPI course into a succeeding semester, they are encouraged to complete it during the same semester for which they register. Students not completing the course may receive a grade of Z (satisfactory work in progress) and must reregister during a subsequent semester when the course is offered and pay tuition for the course if completion is desired.

Contract Study

Several types of independent study are available at U. T. Permian Basin. These are referred to as contract study since, before students can register for the course, plans for the study showing the objectives, procedures to be used, means of evaluation, and other plans must be written and approved by the appropriate instructor, and a copy filed with the Division Director.

Teaching Emphasis

Teaching Emphasis Contract study includes what other institutions may call independent study, readings, special problems, library research and certain other learning activities. Contract studies are not intended to substitute, by content, for courses listed in the catalog. Enrollment in these courses must be completed only during the registration period or only through the 10th class day.

Experiential Learning Unless they have had appropriate work experience, candidates for the bachelor's degree are encouraged to complete a planned program of experiential learning. Experiential learning, referred to in various divisions as "Authentic Involvement" or "Practicum," normally occurs during the senior year, usually in the final semester, and provides students an opportunity to apply their academic learning in a work situation under the supervision of a faculty member and the direction of a supervisor in the work situation. Experiential learning requires a preplanned and written program of the experiences for the student and a procedure for evaluating these experiences. Typically, students enroll in experiential learning for 2-3 credits, which requires 5-10 hours of work per week for one semester or the equivalent.

Bachelor's Degree Programs: *Divisional Requirements*

The degree programs are administered by the five academic components of the univeristy as outlined below. Special degree requirements for the programs as designated by the division are given and these apply to all degrees offered by that division.

Divisional Requirements

Divisional Requirements

Behavioral Science & Physical Education

Behavioral Science & Physical Education

Division of Behavioral Science & Physical Education

Dr. Lois S. Hale, Director

BA	**Anthropology**
BA	**Criminal Justice**
BA	**Physical Education**
BA	**Political Science**
BA	**Psychology**
BA	**Sociology**

A minimum of 120 semester credit hours is required for these degrees of which at least 54 must be at the upper level. A minimum of 30 semester credits of coursework is required in each major field (33 credits in Psychology; 36 in Physical Education) of which at least 18 credits must be at the upper level. No single course may be counted in more than one major.

A minor consisting of a minimum of 18 semester credits is required except as noted here for teacher certification: Students preparing for elementary teaching certification are not required to complete a minor. Students seeking secondary teaching certification must complete a minimum of 24 credits in each of two teaching fields, one of which will serve as a minor.

Following is a list of required and recommended courses for students who plan to transfer to the university and pursue the Bachelor of Arts degree in the Division of Behavioral Science and Physical Education.

	(Semester Credits)	
Subject	**Required**	**Recommended**
English Composition	6	6
Literature[2]	6	6
Government, American[1,2]	6	6
History, American[1,2]	6	6
Mathematics	3	6
Science	6	12
Fine Arts	-	3
Foreign Language	-	6
Psychology	-	3

Divisional Requirements

Behavioral Science & Physical Education

Subject	(Semester Credits) Required	Recommended
Sociology or Anthropology	-	3
Speech	-	3
Philosophy	-	3
Economics	-	3

[1]Required by state statute
[2]May be taken at either lower level or at U. T. Permian Basin.

If some lower-level requirements have not been completed upon transfer to U. T. Permian Basin, then the student may complete those courses at an area community college. Occasionally, upper-level courses may be substituted by electing them at U. T. Permian Basin.

Divisional Requirements
Business Administration

Business

Division of Business

Dr. Corbett F. Gaulden, Jr., Director

BBA	**Accountancy & Information Systems**
BA	**Economics**
BBA	**Finance**
BBA	**Land Management**
BBA	**Management**
BBA	**Marketing**

A minimum of 123 semester credit hours is required for the BBA in Accountancy & Information Systems, Finance, Management and in Marketing. The BBA in Land Management requires a minimum of 125 semester credit hours. The Bachelor of Arts in Economics requires a minimum of 120 credit hours. Students selecting a management program of study may choose to emphasize decision sciences, personnel management or production management. Those selecting marketing may choose the general marketing program or the more specialized program in oil and gas marketing management. All degree programs in this Division require that at least 57 of the total degree credits must be upper-level coursework.

Degree Requirements

Lower Division Preparation

Lower Division or Community College Preparation

The transfer curricula for public junior colleges in Texas established by the Coordinating Board, Texas College and University System, will be accepted in its entirety and applied toward appropriate degrees.

Lower-level plans of study for degrees in Accounting, Economics, Finance, Land Management, Management and Marketing should include:

Subject	**Semester Hours Expected**
Accounting[3]	6-8
Business Law[3]	3
College Algebra[3]	3
Computer Programming[2,3]	3

Divisional Requirements
Business Administration

Economics[3]	6
English Composition or Composition and Rhetoric	6
Political Science, Federal and State[1,2]	6
U.S. History (one may be Texas History)[1,2]	6

[1]Required by state statute.
[2]May be taken at the lower level or at U. T. Permian Basin.
[3]A grade of D will not apply toward degree.

Divisional Requirements

NOTE: Expected courses are those courses normally required for the bachelor's degree that should be completed prior to entrance into U. T. Permian Basin. Applicants with variant preparation are encouraged to coordinate with the Division Director. Applicants who hold sufficient hours for entrance but who lack some of these courses may complete most of the above required courses at U. T. Permian Basin. In certain cases such as economics, it may be necessary to complete these courses concurrently at a community college.

Students who have completed accounting courses other than two courses in principles of accounting at a community college may receive credit for those courses toward the Accountancy and Information Systems major at U. T. Permian Basin only after satisfactory performance on the final examination which U. T. Permian Basin students would have taken for the course in question.

Upper Level Requirements

Upper Level Requirements

All candidates for BBA degrees must complete a basic business administration core of 27 credits. The basic business administration core provides students with a common body of knowledge in business administration. Students' programs include instruction dealing with the following areas:

1. Concepts, processes and institutions in marketing and distribution, production and financing functions of business enterprise.

Divisional Requirements
Business Administration

Upper Level Requirements

2. Economic and legal environment of business enterprises along with consideration and financing functions of business enterprise.

3. Concepts and methods of accounting, quantitative methods and information systems.

4. Organization theory, interpersonal relationships, control and motivation systems and communications.

5. Administrative processes under conditions of uncertainty including integrating analysis and policy determination at the overall management level.

6. The business administration core consists of the following courses: ACCT 300; DSCI 301; ECON 300/400 level course; FIN 320; MNGT 310, 340, 366; MRKT 300 and 314.

Divisional Requirements
Education

Education

Dr. Ernest D. O'Neil, Director

Teacher Certification ..... **Elementary education**
Teacher Certification ..... **Secondary education**
Teacher Certification ..... **All-level**

Students enrolled in teacher education will receive their bachelor's degree in one of the arts, humanities or sciences fields, while completing Texas Education Agency requirements for certification to teach. Elementary education students complete a major in their chosen discipline; however, they are not required to complete a minor. Most students preparing for secondary teacher certification must complete coursework in two teaching fields.

The teacher education program under the 1984 Standards for the Teaching Profession includes provisional certification for classroom teaching in the following subject areas:

Elementary (Option II, Grades one-eight)*

- Art
- Biology
- Earth Science (Geology)
- English
- History
- Mathematics
- Music
- Physical Education
- Spanish

*Subject to final approval of Commission on Standards for the Teaching Profession.

Secondary (Option II, Grades six-twelve except as indicated)

- Art (Option I only, Grades six-twelve)
- Biology
- Business Administration
- Chemistry
- Computer Information Systems
- Earth Science (Geology)
- Economics
- English
- Government
- History
- Journalism
- Life-Earth Science
- Mathematics (Option I and II, Grades six-twelve)
- Music (Option I only, Grades six-twelve)
- Physical Education
- Psychology
- Sociology
- Spanish

All-Level (Options I and II, Grades one-twelve)

- Art (Option I)
- Music (Option I)
- Physical Education (Option II)

Divisional Requirements
Education

Education

U. T. Permian Basin students will be as fully prepared for teaching as students who take a bachelor's degree in education at other universities, but their degrees will be awarded in a field of teaching interest. Thus, one preparing to teach mathematics in high school would receive the BS in Mathematics, plus complete all coursework required for a second teaching field and a secondary level teaching certificate.

During their first semester, students must make application for admission to teacher education. The following documentation must be presented in support of the application:

1. Document Junior status at U. T. Permian Basin
2. Obtain signed Degree Plan from faculty advisor
3. Submit approved Teacher Certification Plan
4. Perform satisfactorily on the Pre-Professional Skills Test (P-PST)*

This documentation must be submitted to the Teacher Education Office. The date of admission will be determined by the Teacher Education Council.

State Board of Education rules require an individual seeking a certificate to be free of felony or misdemeanor convictions for any crime directly related to the duties and responsibilities of the teaching profession. Any student with a conviction must contact the Certification Officer or Division Head.

One full semester during the senior year will be "blocked" for student teaching in a public school. To qualify for student teaching, U. T. Permian Basin students must have an overall grade point average (GPA) of 2.50 and a GPA of 2.75 for both coursework in their teaching fields and education coursework that has been completed at U. T. Permian Basin. Students not meeting these requirements may be admitted to student teaching on a conditional basis with approval of both major advisors (academic and education) and the Teacher Education Council.

In each student teaching program, effective the Fall of 1986, it will be required that **all** methods courses be completed **prior** to the semester in which student teaching will be completed. This means that students in Elementary Education, for example, **must** complete the methods sequence, EDUC 322, 323, 324 and 325, before enrollment in student teaching.

*As of August 29, 1985, the P-PST must be completed satisfactorily prior to recommendation for certification. It is highly recommended that the P-PST be taken as soon as possible. (Please refer to separate flyer, **Public Notice,** dated 8/29/85.)

Divisional Requirements
Humanities & Fine Arts

Humanities & Fine Arts

BA	**Art**
BA	**History**
BA	**Humanities**
BA	**Literature**
BA	**Mass Communications (Journalism & Radio-Television)**
BA	**Music**
BA	**Spanish**
BA	**Speech**

The goal of the Division is to provide each student with an educational program best suited to the interests, abilities and professional goals of the individual. Students work closely with faculty advisors to develop individualized plans of study which include the core courses necessary to meet basic requirements of the respective disciplines. The programs of the Division are reviewed regularly and modified to keep them current with developments in the respective fields.

Degree Requirements

In addition to the general university requirements for the Bachelor of Arts degree listed in the academic policy section of this catalog, students must complete the division's degree requirements.

The Bachelor of Arts degree in the Division of the Humanities and Fine Arts requires a minimum of 120 semester credits.

A minor consisting of a minimum of 18 semester credits is required except as noted. A minor is not required for a BA degree in Humanities and the 49-credit program in Art. Students preparing for elementary teaching certification are not required to complete a minor. Students seeking secondary or all-level teaching certification must complete a minimum of 24 credits in each of two teaching fields, one of which will serve as the minor. Faculty in the Division of Education should be consulted for specific course and testing requirements for certification.

Lower Division Preparation

Lower Division or Community College Preparation

The junior college transfer curricula for public junior colleges in Texas established by the Coordinating Board, Texas College and University System will be accepted in its entirety and applied toward appropriate degrees; however it is not necessary that the student complete this exact list of courses.

Divisional Requirements
Humanities & Fine Arts

Humanities & Fine Arts

For example, except for majors in Spanish, the study of a foreign language is not required for the Bachelor of Arts degree, although it is recommended for most majors. Because of special interest or career plans, some students would be well advised to complete four semesters of one foreign language prior to enrolling at U. T. Permian Basin.

Following is a list of required and recommended courses for students who plan to transfer to the university and to pursue the Bachelor of Arts degree in the Division of the Humanities and Fine Arts.

	(Semester Credits)	
Subject	**Required**	**Recommended**
English Composition	6	6
Literature[2]	6	6
Government, American[1,2]	6	6
History, American[1,2]	6	6
Mathematics	3	6
Science[2]	6	12
Fine Arts	-	3
Foreign Language	-	6
Psychology	-	3
Sociology or Anthropology	-	3
Speech	-	3
Philosophy	-	3
Economics	-	3

[1]Required by state statute.
[2]May be taken at either the lower level or at U. T. Permian Basin.

If some lower-level requirements have not been completed before transfer to U. T. Permian Basin, the student may complete those courses at an area community college. Occasionally, upper-level courses may be substituted by electing them at U. T. Permian Basin.

Divisional Requirements
Science & Engineering

Division of Science and Engineering
Dr. Dougles F. Hale, Director

Science and Engineering

BS	**Chemistry**
BS	**Computer Science**
BS	**Control Engineering**
BS	**Earth Sciences**
BS	**Geology**
BS	**Life Science**
BS	**Mathematics**

The goal of the Division is to provide each student with an educational program best suited to the interests, abilities and professional goals of the individual. Each degree program has been carefully designed to ensure the development of competencies necessary for successful pursuit of the individual's career goals. Students work closely with faculty advisors to develop individualized plans of study, which will include the core courses necessary to meet basic requirements of the respective disciplines. The programs of the Division are reviewed regularly and modified to keep them current with developments in the respective fields.

To realize its goal, the Division makes available a wide variety of learning activities. Among these are self-paced instruction (SPI), small group instruction, case studies, seminars, experiential activities, off campus field trips, field study courses, self initiated research, integrated laboratory activities, and contract or independent study. While not all these options are available in every discipline, degree plans will generally include some of these varied activities, resulting in a program which is interesting and which builds professional competence.

In addition to general university requirements for the Bachelor of Science degree specified in the academic policy section of this catalog, students must complete the degree requirements listed under the respective degree programs. All of the programs require a minimum of 54 semester credit hours of upper-level course work and some degree plans will include more. Some programs and/or degree plans will require more than the minimum university requirement of 120 semester credit hours.

Degree Requirements

Students who seek teaching certification are subject to further requirements. For secondary certification, a second 24 semester credit hour field must be completed, the specific content of which should be worked out with the appropriate discipline. This second teaching field serves as the minor. For

Divisional Requirements
Science & Engineering

Engineering

elementary certification, no minor is required, but considerable course work in education must be completed. Faculty in the Division of Education should be consulted for specific course and testing requirements for certification.

Prospective students are encouraged to contact U. T. Permian Basin faculty members in the appropriate discipline for assistance in planning lower-level programs or for more specific information about upper-level work. At least 18 semester credit hours in the major and 12 in the minor must be completed at the upper-level, though some disciplines may require more.

Lower Division or Community College Preparation

The appropriate transfer curricula for public junior colleges in Texas established by the Coordinating Board, Texas College and University Systems, will be accepted in its entirety and applied to appropriate degree programs. The student should note, however, that most programs in the Division require more mathematics and basic science than are usually listed in those transfer curricula.

Certain courses in some U. T. Permian Basin degree programs require preparatory courses which are not included in the transfer curricula. For specific requirements and prerequisites, the applicant should meet with a faculty member in his or her prospective discipline. Lower-level preparation for most programs in the Division will include 60 to 66 semester credit hours of work.

Lower Level Preparation

B.S. Control Engineering

In addition to the general university requirements for the Bachelor of Science degree as specified in the academic policy section of this catalog, students must complete the degree requirements listed under this section and the section describing the Control Engineering degree program. A minimum of 142 semester credit hours is required to complete the degree requirements, of which 68 must be at the upper level.

Some preparatory courses are not included in the Junior College transfer curricula. Prospective students are encouraged to contact U. T. Permian Basin faculty members in Engineering for assistance in planning lower-level programs or for information about the upper-level programs. Majors in engineering ordinarily take 68 hours of lower-division coursework.

Divisional Requirements
Science & Engineering

The curriculum in Control Engineering is a professional engineering program designed to educate students in the fundamentals of engineering and then to prepare them to apply computer control and automation to industrial processes. Control systems are widely used because they provide convenience, high productivity, ability to minimize cost and maximize performance, and improve safety and reliability. As an example, many new automobiles utilize computer control of almost all engine and transmission functions. The level of fuel economy they achieve would not be possible without automatic controls. Robotics and computerized information handling also are an important means of achieving better efficiency and productivity required to make U.S. industry more competitive in the international market place.

Prospective students are encouraged to contact U. T. Permian Basin Engineering faculty members with questions regarding career opportunities, degree requirements, and other aspects of the study and practice of control engineering.

Bachelor Degree Requirements

Accountancy & Information Systems

Bachelor of Business Administration

Bachelor of Business Administration

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

The major in Accountancy and Information Systems combines the well-established field of accounting with the new but rapidly expanding area of information systems. The program is intended to prepare students for professional careers in public, managerial, governmental or social accounting.

Accounting is a discipline providing quantitative and qualitative information essential to the decision-making process utilized by any type of organization. Information systems courses deal with the techniques of processing, analyzing and utilizing business or other data for decision making, with an emphasis on effective application of computers.

Education and Experience for CPA:

Texas CPA (Certified Public Accountant) candidates wishing to qualify to sit for the CPA exam under the education and experience requirements of the Act of 1979 should meet the following minimum requirements:

1. High School graduate plus 2 years of study in a college or university (60 semester hours) including at least 20 semester hours in accounting, may sit for all parts of the exam. Six years of qualifying experience under the supervision of a CPA is required before a CPA certificate will be issued.

2. Baccalaureate degree holder with at least 30 semester hours in accounting and 20 semester hours in related business subjects may sit for all parts of the exam. Two years of qualifying experience is required before the certificate will be issued.

3. Master's degree, 5-year professional, LLB, or J.D. degree holders with at least 30 semester hours in accounting and 20 semester hours in related business subjects may sit for all parts of the exam. One year of qualifying experience is required before the certificate will be issued.

Accountancy & Information Systems

Bachelor of Business Administration

Accountancy & Information Systems

The 3rd- and 4th-year degree requirements consist essentially of two parts:

Basic Business Administration Core (outlined under Divisional Requirements)	27 credits
Accountancy and Information Systems courses	36 credits

Degree Requirements

Opportunities for advanced course work in Accountancy and Information Systems are provided to meet the objective and capabilities of the student and the business faculty. Requirements for a major in Accountancy and Information Systems are ACCT 301, 302, 303, 304, 333, 400, 401, 405, 406, 411 and two approved electives.

Sample Degree Plan

Sample Degree Plan Accountancy and Information Systems*

Junior Year

First Semester		**Second Semester**	
ACCT 300	3	ACCT 303	3
ACCT 301	3	ACCT 302	3
ACCT 333	3	ACCT 405	3
DSCI 301[1]	3	MNGT 340[2]	3
MNGT 310	3	MRKT 300	3
	15		15

Senior Year

First Semester		**Second Semester**	
ACCT 411	3	ACCT 400	3
ACCT 304	3	ACCT 401	3
ACCT 406	3	Approved Electives or	
FIN 320	3	416	6
MRKT 314	3	MGNT 366	3
ECON 300/400	3		
	18		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

[1]DSCI 301 must be completed during the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed during the second semester at U. T. Permian Basin or before.

Accountancy & Information Systems

Bachelor of Business Administration

Course Listing

ACCT 300 Managerial Accounting (3)
Accounting in planning and control of business enterprises, emphasis on management and decision-making uses of accounting information. Prerequisite: accounting principles.

ACCT 301 Intermediate Accounting I (3)
Problems and theory of financial statements of conditions and net income and other published financial statements of business organizations. Prerequisite: accounting principles.

ACCT 302 Intermediate Accounting II (3)
Fundamental theory and problem-solving related to publication of financial statements. Includes liabilities, paid-in capital, changes in financial position and financial statements. Prerequisite: ACCT 301.

ACCT 303 Cost Accounting Principles (3)
Cost analysis of manufacturing, marketing and administrative functions of business organizations primarily for purposes of control and decision-making. Prerequisite: accounting principles.

ACCT 304 Special Problems Accounting (3)
Emphasis on special problems in current accounting practice to include not-for-profit organizations, corporate liquidation and reorganization, and interim financial reporting. Prerequisite: ACCT 302.

ACCT 310 Accounting Concepts (3)
Fundamentals of theoretical and practical concepts in accounting.

ACCT 333 Information System Fundamentals (3)
Basic framework for developing and analyzing systems-oriented information flows in profit and nonprofit organizations. Prerequisite: CPSC 300, 301 or 302, or equivalent.

ACCT 400 Advanced Accounting (3)
Special accounting problems for partnerships; branches; corporate mergers and acquisitions, and multinational business organizations. Prerequisite: ACCT 304.

ACCT 401 Accounting Theory (3)
Historical development of accounting theory; criteria for choices among income-determination and asset-valuation rules in context of public reporting. Prerequisite: ACCT 302 or equivalent.

Accountancy & Information Systems

Bachelor of Business Administration

Course Listing

ACCT 405 Federal Income Tax (3)
Provisions and procedures of federal income tax laws and requirements affecting individuals and business organizations, including management problems of tax planning and compliance. Prerequisite: ACCT 301 or concurrent enrollment.

ACCT 406 Auditing Theory and Practice (3)
Auditing standards and supporting philosophy. Techniques available to independent public accountants. Prerequisites: ACCT 302, 333, DSCI 301.

ACCT 410 Oil and Gas Accounting (3)
Accounting principles and procedures for the petroleum industry. Includes exploration, leasing, drilling and production problems. Prerequisite: ACCT 304.

ACCT 411 Information Systems Theory and Analysis (3)
Introduction to the information systems approach and appropriate computer applications for varied types of organizations.
Prerequisite: ACCT 333 or permission of instructor.

ACCT 413 Cost Analysis and Profit Planning (3)
Budgeting and use of standard cost systems and in-depth study of cost and profit analysis. Prerequisites: ACCT 303; MNGT 340.

ACCT 415 Advanced Income Tax (3)
Federal Income Tax laws, rules and regulations relating to partnerships, corporations, estates and trusts. Prerequisite: ACCT 405.

ACCT 416 System Audits (3)
Auditing of EDP systems and basic approaches to auditing other types of business/organization systems. Prerequisite: ACCT 406.

ACCT 425 Oil and Gas Taxation (3)
A survey of federal tax law affecting the oil and gas industry. Exploration, development, drilling, leasing, depletion, amortization and windfall profits tax. Prerequisite: ACCT 405

Anthropology
Bachelor of Arts

Bachelor of Arts

Anthropology (BA)

Administered by the Division of Behavioral Science and Physical Education. Please see that section for general degree requirements.

The Bachelor of Arts degree program in Anthropology is intended to provide a broad preparation in social and cultural anthropology. A major in Anthropology serves students with at least three orientations. The first orientation includes students who are pursuing a liberal arts education but desire more than an elementary understanding of anthropology. The second includes students wanting to enter careers in primary or secondary education, law, government service, business, management, law enforcement, medicine, social services or other fields in which an understanding of social behavior and organization is advantageous. The third includes students planning to pursue graduate studies in preparation for becoming professionals in any of the subfields of anthropology. Most students majoring in Anthropology minor in sociology, psychology, education, life science or related disciplines.

The major of Anthropology consists of the following:

One course from each of the following groups:
Social and Cultural Anthropology: ANTH 301,311
Physical Anthropology: ANTH 315
Archaeology: ANTH 401, 416, 417, 418

Two courses from each of the following groups:
Area studies: ANTH 361, 385, 447, 485
Topical studies: ANTH 333, 427

The minor in Anthropology consists of 18 semester credits, of which 12 must be upper level, with a minimum of one course from each group above.

Sample Degree Plan Anthropology*

Sample Degree Plan

Junior Year

First Semester		Second Semester	
ANTH 301, or 311	3	ANTH 333	3
ANTH 315	3	ANTH 361 or 385	3
Courses in Minor	6	ANTH 401	3
Electives	3	Courses in Minor	6
	15		15

Anthropology
Bachelor of Arts

Senior Year

First Semester		Second Semester	
ANTH 416	3	ANTH 427	3
ANTH 437	3	ANTH 447 or 485	3
Courses in Minor	6	ANTH 418	3
Elective	3	Elective	6
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

ANTH 301 Cultural Anthropology (3)
Interrelationship of environment, society, thought and action expressed within our own and different cultures.

ANTH 311 Social Anthropology (3)
Human social structure and its interrelationship with economic, political and religious organization.

ANTH 315 Physical Anthropology (3)
Survey of fossil man and study of processes that led to Homo sapiens.

ANTH 333 Myth, Symbol and Religion (3)
How man identifies himself through symbol systems expressed in ritual practices and religious beliefs, and the impact of religion upon society.

ANTH 361 Indians of the Southwest (3)
Pueblo, Apache, Hopi and Navajo Indians. Social structure, economic organization and history, and Indian relationships to non-Indian ethnic groups.

ANTH 385 Indians of North America (3)
Developing a variety of native cultures north of Mexico. Different culture areas focusing on representative tribes and issues.

ANTH 401 Archaeological Analytic Methods (3)
Recording and cataloging of artifacts, their preservation and care, museum display, and statistical sampling in the field. Prerequisite to any archaeological field course.

Anthropology
Bachelor of Arts

Course Listing

ANTH 416 Archaeology of Meso-America (3)
Evolution of Mexican and Mayan civilizations from the early hunters through the Post-Classic Period. Reconstruction of prehistoric civilizations from archaeological evidence.

ANTH 417 Archaeology of the Southwest (3)
Development and characteristics of prehistoric Indian societies, particularly the Mogollon, Hohokam, Anasazi and Casa Grande areas, and their relation to other historic societies.

ANTH 418 Archaeology of North America (3)
Growth of cultures in America north of the Rio Grande River and their relationship to historically known societies.

ANTH 427 Historical Trends in Anthropology (3)
Classical, theoretical contributions in anthropology including major trends of thought in the development of anthropology.

ANTH 437 Urban Anthropology (3)
Spatial structure, symbolic structure and social processes within cities of the world. Effects of these upon minority cultures in Midland and Odessa.

ANTH 447 South American Civilizations (3)
Contemporary Quechuas and Aymaras, tribes of the Amazon Basin, and African derived cultures of the Caribbean, the Guianas and Brazil. Impact of westernization on these civilizations.

ANTH 485 Peoples and Cultures of Africa (3)
Peoples and cultures of Africa south of the Sahara. Prehistory, culture area and linguistic classifications of selected cultures and contemporary society.

Art
Bachelor of Arts

Art

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

The visual arts program at U. T. Permian Basin provides instruction in contemporary modes of expression as well as those of the past. Within the mainstream of modern art, there are infinite possibilities for individual expression and students are encouraged to seek out those that are best suited to themselves. A student need not have studied art prior to entering a U. T. Permian Basin program but may be expected to make up certain lower-level deficiencies by taking courses at a community college. In accordance with the university's broadly based humanities program, nonart majors are encouraged to enroll for courses.

There are three basic concentrations in Art; the first is a major in Art which meets the minimum standards of the discipline but leaves sufficient electives to permit electing courses in other disciplines; second is a teacher certification program in Art; and the third stresses a more comprehensive training of 49 hours that can lead to a career in college teaching or commercial art. The Art major requirement is 36 credits, 24 of which must be taken at U. T. Permian Basin. For those who successfully complete a 49-credit program, 30 of which are required at U. T. Permian Basin, a senior exhibition in the university gallery is offered. Students in this comprehensive training program can select from the two-dimensional, three-dimensional or commercial art tracks.

All Art majors must take ART 402 and ART 403.

For full entry into the program, a student is required to have completed courses in two-dimensional and three-dimensional design. Those who have not met that requirement will be expected to do so at the community college level. It is also strongly recommended that entering students complete a survey course in western world art history as well as drawing and painting. Portfolio review will be the final factor, but in no program will more than 24 credits of lower-level art courses be accepted toward the Art major.

A minor in Art normally consists of 18 hours, 12 of which must be taken at U. T. Permian Basin. Students are expected to have completed a course in two-dimensional design. (A drawing course may be substituted for this requirement.) At the upper-level, ART 402 and a drawing course are recommended.

Art
Bachelor of Arts

Sample Degree Plan Art*

First Semester		**Second Semester**	
ART 402 (required)	3	ART 411	3
ART 310	3	ART 322	3
ART 335	3	ART 331	3
Courses in Minor	6	Courses in Minor	6
	15		15

First Semester		**Second Semester**	
ART 412	3	ART elective	3
ART 420	3	Electives	12
ART 440	3		
Courses in Minor	6		
	15		15

*Degree plans vary depending upon a student's goal and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific planning.

**Art courses marked with an * may be taken for up to six hours of credit with permission of the instructor.*

Sample Degree Plan

Junior Year

Senior Year

Course Listing

ART 402 Concepts in Modern Art (3)
In-depth study of the underlying ideas on which today's art is based.

ART 403 Art Since 1945 (3)
From abstract expressionism to systems art and photo-realism.

***ART 310 Drawing I (3)**
Open to nonart majors. Different approaches to drawing fundamentals of composition and use of different mediums.

***ART 311 Drawing II (6)**
Open to nonart majors. Different approaches to drawing, fundamentals of composition and use of different mediums.

***ART 410 Figure Composition (3)**
Use of figure as a departure for developing images. Prerequisite: ART 310.

Art
Bachelor of Arts

Course Listing

***ART 411 Figure Composition II (3)**
Using the figure as a departure for developing images. Prerequisite: ART 310.

***ART 412 Advanced Drawing I (3)**
Problems and development of individual expressions. Prerequisite: ART 310 or ART 410.

***ART 413 Advanced Drawing II (3)**
Problems and development of individual expressions. Prerequisite: ART 310 or ART 410.

***ART 321 Painting Techniques Water (3)**
Water soluble media including transparent watercolor, gouache, acrylics, mixed media and egg tempera.

***ART 322 Painting Techniques in Various Mediums (3)**
Preparation of ground and support for a painting, color and paint handling (including glazes), the chemistry of paint and the encaustic medium.

***ART 420 Painting Techniques I (3)**
Development of personal imagery. Prerequisite: ART 321 or ART 322.

***ART 421 Painting Techniques II (3)**
Advanced problems. Prerequisite: ART 321 or ART 322.

***ART 422 Painting Techniques III (3)**
Advanced problems. Prerequisite: ART 321 or ART 322.

***ART 331 Principles of Sculpture (3)**
Interaction between materials and form. Processes including direct and indirect building of form, wood carving, stone carving and welding.

***ART 430 Metal Sculpture (3)**
Welding, brazing and foundry skills to develop individual expression.

***ART 431 Human Figure Modeling (3)**
Modeling the figure in clay. Alternative sculptural formats are acceptable.

***ART 432 Advanced Sculpture (3)**
Development of individual expression.

Art
Bachelor of Arts

Course Listing

***ART 335 Ceramics Handbuilding I (3)**
Basic techniques in handbuilding use of coil and slab methods.

***ART 435 Ceramics Handbuilding II (3)**
Techniques in handbuilding use of coil and slab methods.

***ART 336 Ceramics Wheelthrowing I (3)**
Basic wheelthrowing techniques.

***ART 436 Ceramics Wheelthrowing II (3)**
Wheelthrowing techniques.

***ART 437 Clay and Glazes (3)**
Composition of glazes and preparation of clay with emphasis on inventiveness and creativity. Handbuilding or wheelthrowing may be substituted.

***ART 438 Ceramic Form (3)**
Emphasis on individual expression in either handbuilding or wheelthrowing.

***ART 341 Silkscreen (3)**
Processes including preparation of the silk screen, cut-paper frisket, glue and tusche, film stencil and special problems.

***ART 440 Intaglio (3)**
Plate preparation, grounds and mordants, use of the press and printing processes including drypoint, etching, aquatint, color printing and collagraph.

***ART 441 Lithography (3)**
Processes including crayon and pencil, tusche, gum masks and impression, color printing and special problems.

***ART 442 Advanced Problems in Printmaking I (3)**
Advanced problems in printmaking. Prerequisite: at least one previous printmaking course.

***ART 443 Advanced Problems in Printmaking II (3)**
Advanced problems in printmaking. Prerequisite: at least one previous printmaking course.

Art
Bachelor of Arts

Course Listing

ART 305 Stained Glass (3)
Basic skills in stained glass and leaded glass. Emphasis on design and construction of two dimensional panels.

***ART 326 Photography (3)**
Shooting, processing and printing technically good photographs of interest and visual value suitable for publications. Same as MCOM 326.

ART 405 Advanced Stained Glass (3)
Work under the "Tiffany" technique of glasscraft. Construction of two and three dimensional work. Prerequisite: ART 305.

ART 450 Advanced Photography I (3)
A continuation of technical development with considerable attention to aesthetics. Attention also given to expanding vision and to developing new techniques. Prerequisite: ART 326 or equivalent.

ART 451 Advanced Photography II (3)
A continuation of technical development with considerable attention to aesthetics. Attention also given to expanding vision and to development of new techniques. Prerequisite: ART 326 or equivalent. Same as MCOM 451.

ART 452 Metal Jewelry (3)
Basic metal jewelry processes with emphasis on design.

ART 453 Problems in Art Metal (3)
Metal jewelry processes with emphasis on design.

ART 454 Weaving Fiber (3)
Designs covering modern tapestry and woven art forms, developing techniques including plain weave, rya, soumak, wrapping, and single and double woven warps.

ART 455 Advanced Problems in Weaving (3)
Advanced problems in weaving. Prerequisite: at least one previous course in weaving.

ART 370 Elementary Art Education (3)
Characteristics and stages of creative development in child art; the procedures and methodology for stimulating, selecting and motivating elementary art experiences.

Art
Bachelor of Arts

Course Listing

ART 371 Secondary Art Education (3)
Procedures and methodology for selecting, stimulating and motivating secondary art instruction. Spring semester only.

ART 380 Elements of Commercial Design (3)
A course dealing with the fundamentals of commercial design including layouts, pasteups, mechanics and typography.

ART 381 Typography (3)
Study of type styles, lettering processes, mechanics, tools, language and printing processes used by printers and commercial artists as applied to the printed form of advertising.

ART 382 Illustration (3)
Drawing as applied to commercial art; emphasis on materials and techniques best suited for visual presentation of a product, service or idea.

ART 487 Advanced Advertising Art (3)
Implementation of typography, layout and design and illustration as applied to a full advertising campaign. Investigation of commercial art as applied to television. Prerequisites: ART 380 381 and 382.

ART 488 Commercial Design and Internship (3)
Problems in commerical design involving ad campaigns, television graphics, and explicit design problems followed by applied learning with various agencies and media in the community. Prerequisites: ART 380, 381, 382 and 487.

Culminating Experiences

ART 399 Senior Exhibition (1)
An exhibition selected and hung by the student consisting of his best work at the university. Restricted to those taking a concentrated major in art (49 hours).

Chemistry
Bachelor of Science

Chemistry

Bachelor of Science

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

Studies in chemistry offer an opportunity to develop problem-solving abilities through a wide variety of courses and seminars as well as individual contributions to the field through laboratory research.

The Chemistry program consists of 2 plans; A and B. Plan A, the professional chemistry plan, follows the guidelines of the American Chemical Society for an approved Bachelor of Science degree in Chemistry, and is recommended for those who wish to pursue a career in chemistry either immediately after graduation or after additional study at the graduate level. It is the only acceptable preparation for admission to most graduate schools for an advanced degree in chemistry. Plan B , the teacher education plan, is designed for students who wish to pursue a double major in life science; to prepare for entry in medical, dental, or related professional schools; or who merely wish to obtain a knowledge of chemistry to satisfy their own personal desires. It is not recommended for those who wish to practice in the profession of chemistry and/or desire to do graduate work in chemistry.

For students taking Plan A, core requirements are: 8 hours general and inorganic chemistry; 8 hours organic chemistry; and CHEM 324, 325, 395, 398, 401, 402 and 403.[1] In addition, students in Plan A are required to take 9 semester credit hours of advanced coursework in chemistry and CPSC 301.

For students taking Plan B, core requirements are 8 hours general and inorganic chemistry; 8 hours organic chemistry; CHEM 324, 325, 350 and 398.[1] In addition, students in Plan B are required to take 6 semester credit hours of advanced coursework in chemistry and CPSC 301.

A minor in Chemistry requires 8 hours general and inorganic chemistry, 8 hours organic chemistry; CHEM 324, 325, 350[1] and sufficient additional hours in chemistry to make a total of 12 hours of upper-division coursework.

[1]Where specific U. T. Permian Basin Chemistry course numbers are given, the requirement may be met by equivalent courses taken elsewhere.

Chemistry
Bachelor of Science

Chemistry

It is recommended that all majors in Chemistry complete the following courses prior to enrolling at U. T. Permian Basin:

Subject	Semester Hours
English Composition	6
Literature or Equivalent	6
American History	6
American Government	6
Inorganic Chemistry	8
Calculus (Plan A)	6
Physics	8

Course Listing

CHEM 311 Organic Chemistry I (3)
Organic functional groups. Emphasizes synthesis and mechanisms. For chemistry, pre-professional and other science majors.
Corequisite: CHEM 313.

CHEM 312 Organic Chemistry II (3)
Continuation of CHEM 311 including an introduction to naturally occurring and biologically important compounds. Prerequisite: CHEM 311.
Corequisite: CHEM 314.

CHEM 313 Experimental Organic I (2)
Techniques of separation, purification, synthesis and an introduction to instrumental identification of organic compounds of general and consumer interest. Corequisite: CHEM 311.

CHEM 314 Experimental Organic II (2)
Continuation of CHEM 313; stronger emphasis on organic synthesis, spectral interpretation, (IR, NMR, MS) and instrument usage and qualitative analysis. Prerequisites: CHEM 311, 313.
Corequisite: CHEM 312.

CHEM 324 Analytical Chemistry I (3)
Analytical techniques and methods (emphasis on instrumentation) common to all areas of chemistry, medicine and the life sciences.
Corequisite: CHEM 325.

CHEM 325 Analytical Chemistry Lab I (2)
Laboratory experience with instruments and methods presented in CHEM 324.
Corequisite: CHEM 324.

Chemistry
Bachelor of Science

Course Listing

CHEM 350 Fundamentals of Physical Chemistry (3)
Thermodynamics, solutions, kinetics, nuclear chemistry and macromolecules.

CHEM 395 Research (1)
Laboratory work on some aspect of a chemical research problem. Prerequisite: consultation with chemistry coordinator and permission of research sponsor. May be repeated for credit.

CHEM 398 Seminar (1)
Reports on recent chemistry developments in various areas by students, faculty and others in the chemical community. Prerequisite: permission of chemistry coordinator.

CHEM 400 Mathematical Methods in Chemistry (1)
Mathematical methods important in physical chemistry including calculus, differential equations and vector analysis. Prerequisite: one year of calculus. Corequisite: CHEM 401.

CHEM 401 Physical Chemistry I (3)
Kinetic molecular theory, molecular thermodynamics and an introduction to molecular energies. Prerequisites: one year each of calculus and physics. Corequisites: CHEM 400, 403.

CHEM 402 Physical Chemistry II (3)
Kinetics, quantum mechanics, bonding and molecular spectroscopy. Prerequisite: CHEM 401.

CHEM 403 Experimental Physical Chemistry I (2)
Thermodynamic, kinetic and spectroscopic measurements. High-vacuum techniques and the use of sophisticated equipment in measuring molecular parameters. Corequisite: CHEM 401.

CHEM 404 Experimental Physical Chemistry II (2)
Continuation of CHEM 403. Prerequisite: CHEM 403. Corequisite or prerequisite: CHEM 402.

CHEM 440 Medicinal Chemistry (3)
A brief historical development of medicinal chemistry and pharmacognosy will be followed by a detailed look at most drug classes. Emphasis will be on relating chemical structure with bioactivity. Commonly used methods of drug design are interspersed. Prerequisite: CHEM 312.

Chemistry
Bachelor of Science

Course Listing

CHEM 451 Biochemistry (3)
Biochemistry from a molecular viewpoint. Emphasis on structure and functions of biomolecules, energy-yielding and requiring processes. Prerequisites: CHEM 312, 314.

CHEM 472 Organic Structure Determination (3)
A problem solving course that integrates chemical reaction and spectroscopic (IR, UV-VIS, H1 and C13 NMR, MS) information to identify organic compounds. Prerequisite: CHEM 314.

CHEM 474 Inorganic Chemistry (3)
Modern bonding theories at level appropriate to understanding structure and chemical properties. Periodic relationships applied to families of elements. CHEM 401 or 402 is desirable.

Computer Science
Bachelor of Science

Computer Science

Bachelor of Science

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

Computer science studies are interdisciplinary, encompassing the fields of computer science, engineering, management and mathematics. These studies are designed for students interested in gaining a broad knowledge of the computer and its applications, and in developing an ability to design and analyze software and hardware systems for use in scientific or business applications.

Admission to the Computer Science program presumes that students have the equivalent of an introductory course in computer science and data processing, and familiarity with at least one high-level programming language.

Plans of study will be tailored to satisfy the student's career objectives. There are two basic degree plans offered at U. T. Permian Basin, each leading to a Bachelor of Science degree. One plan is scientifically oriented while the other has a business orientation. Both programs share a common core of courses that should be taken in the junior year. The business plan is geared towards design specification and construction of information processing systems. The scientific plan is oriented toward the inner workings of computer systems, programming languages, and applications of the computer to scientific problems. In addition to the common core, students are required to demonstrate the ability to use both a business and scientific oriented language.

The major program requires a minimum of 24 semester credit hours in computer science courses, not including introductory programming courses. These 24 credit hours must include the core consisting of CPSC 304, 310, 315 and 320. Other courses to fill out the required 24 hours are to be chosen by the student with his/her advisor. In addition to the computer science courses, there is a supporting mathematics requirement which includes at least nine semester-credit hours of calculus (including Calculus of Several Variables) and at least 2 additional courses selected from the following group of MATH 301, 310, 315, 330, 401 and MNGT 340. If the calculus sequence has not been completed at the time of admission, the student must take calculus during the first semester and each subsequent semester at U. T. Permian Basin until the sequence is completed. (Calculus courses normally are not taught at U. T. Permian Basin; the student must take them at one of the local community colleges.) Finally, all students are required to have a minor of 18 semester credit hours, 12 of which must be at the upper level. The choice of minor is up to the student.

Computer Science
Bachelor of Science

Computer Science

Majors electing the business plan will usually minor in accounting or management, while those pursuing the scientific plan normally minor in mathematics or in one of the natural sciences.

Computer science may be used as a minor to satisfy other degree programs. Specific courses will depend upon the student's major and specific interests. It is generally recommended that the core courses be used for the upper division requirements, enabling the student to later continue with the more advanced courses. The required 12 upper-level hours may not include introductory programming courses.

In addition to the computer science and mathematics requirements outlined above, computer science majors must complete the following general educational requirements:

Laboratory Science (engineering physics recommended)	8 hours
English	6 hours
Literature	6 hours
Government	6 hours
U.S. History	6 hours

For those intending to minor in one of the sciences, additional science courses are generally required. The faculty of the minor department should be consulted regarding preparatory requirements. Students who minor in accounting or management must complete courses in the principles of accounting (two semesters) and principles of economics (two semesters).

This background, along with the completed calculus sequence, will result in a typical junior year as follows:

Sample Degree Plan
Junior Year

First Semester		**Second Semester**	
CPSC 304	3	CPSC 315	3
CPSC 310	3	CPSC 320	3
MATH 310	3	MATH 301 or 401	3
Course in Minor	3	Course in Minor	3
Elective	3	Elective	3
	15		15

Computer Science
Bachelor of Science

The senior year will then reflect the emphasis of the student. Typical programs are as follows:

Senior Year
Business Option

First Semester		Second Semester	
CPSC 415	3	CPSC 430	3
CPSC elective*	3	CPSC elective*	3
Minor course	3	Minor course	3
Elective	3	Elective	3
Elective	3	Elective	3
	15		15

*Recommend CPSC 411, 416, 425, 450, 460, 470, 480.

Senior Year
Scientific Option

First Semester		Second Semester	
CPSC 480	3	CPSC 420	3
CPSC elective*	3	CPSC elective*	3
Minor course	3	Minor course	3
MATH 330	3	Sr. Seminar	3
Elective	3	Elective	3
	15		15

*Recommend CPSC 340, 350, 425, 430, 440, 450, 460, 470.

Students not employed in the computer science field, or not having significant experience in programming and allied computer activities, should take Authentic Involvement CPSC 392, as one of their computer science electives. The activity of this course involves the analysis, design and solution of real-life problems employing the skills and techniques of computer science as applied in business, industry and scientific research.

Course Listing

CPSC 300 BASIC Programming for Business (3)
Problem analysis and design of algorithms for business applications using the interactive language BASIC. (Cannot be applied toward a Computer Science major.)

CPSC 301 Problem Solving, FORTRAN (3)
Problem analysis and formation of algorithms for solution of scientific problems using FORTRAN. (Cannot be applied toward a Computer Science major.)

Computer Science
Bachelor of Science

Course Listing

CPSC 302 Problem Solving, COBOL (3)
Problem analysis and formation of algorithms for solution of business problems using COBOL. Recommended prerequisite: another programming language or introductory computer science course. (Cannot be applied toward a Computer Science major.)

CPSC 303 PASCAL Programming (3)
Programming of business and scientific problems using PASCAL. Prerequisite: an introductory course in another programming language or introductory computer science course. (Cannot be applied toward a Computer Science major.)

CPSC 304 Finite Math for Computers (3)
Sets and elementary logic, introduction to probability, vectors, matrices, linear programming and graphs as they apply to computers. Prerequisite: college algebra. Same as MATH 304.

CPSC 310 Digital Computer Organization (3)
Design of arithmetic, control and memory units, binary data representation, error-detecting and error-correcting codes.

CPSC 315 Information Systems Design (3)
Computer systems and relationships between hardware and software components. Emphasis on business system design and analysis.

CPSC 320 Data Structures (3)
Computer storage and data retrieval. Data structures include linear lists, linked lists, pushdown stacks, queues, graphs, trees and strings. Prerequisite: CPSC 304 and a programming language.

CPSC 340 Assembly Language Programming (3)
Arithmetic, logic, control and input/output statements. Assemblers with macroprogramming and conditional assembly capabilities.

CPSC 415 Database Systems (3)
Survey of database architecture including network, hierarchical and relational models. Prerequisites: CPSC 310, 320.

CPSC 420 Numerical Analysis (3)
Initial value problems, transcendental equations and systems of linear equations. Interpolation, averaging and quadrature processes. Error analysis stressed. Prerequisites: MATH 310, 330 and knowledge of a programming language. Same as MATH 420.

Computer Science
Bachelor of Science

Course Listing

CPSC 425 Programming Algorithms (3)
Modular programs using structured programming techniques. Directed to developing efficient algorithms. Prerequisite: CPSC 320.

CPSC 430 Operating Systems (3)
Resource allocation of central processor, main memory, I/O devices and software resources. Assemblers, macroprocessors, loaders and compilers. Prerequisites: CPSC 310, 320.

CPSC 440 Minicomputers and Microprocessors (3)
Hardware and software design of minicomputers and microprocessor systems. Available systems, assembly language, machine language and microprogramming techniques. Prerequisite: CPSC 310.

CPSC 450 Artificial Intelligence and Heuristic Programming (3)
Analysis of information content by statistical, syntactic, semantic and heuristic methods and systems which answer questions, play games, prove theorems and recognize patterns. Prerequisites: CPSC 310, 320.

CPSC 460 Theory of Automata (3)
Mathematical theory of automata. Survey of finite automata, regular expressions, recursive functions, abstract machines, turing machines and computational complexity. Prerequisites: CPSC 304, 310 or permission of instructor. Same as MATH 460.

CPSC 470 Data Communications (3)
Design and development of computer networks, network types, protocols; transmission rates and data integrity. Prerequisites: CPSC 310 and permission of the instructor.

CPSC 480 Programming Languages (3)
Fundamental concepts and general principles underlying programming languages in current use, e.g., FORTRAN, P/L-1, ALGOL 60, APL, SNOBOL and PASCAL. Prerequisites: CPSC 320. CPSC 310 is recommended.

Control Engineering
Bachelor of Science

Bachelor of Science

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

The Control Engineering degree program begins in the lower division with studies in calculus, physics and chemistry. It continues in the upper division with engineering sciences, design and technical specialty courses. Not only must control engineers know basic engineering; they must also be familiar with computer hardware and software required for implementing automatic controls.

The Bachelor of Science degree in Control Engineering requires completion of the Junior College transfer curriculum in engineering developed by the Coordinating Board, Texas College and University System. In addition, the transfer student should have completed three semester credit hours in each of the following areas: calculus of several variables (Calculus III), differential equations, dynamics, and the prerequisites for these courses.

Students studying Control Engineering at U. T. Permian Basin must earn a **C** or better grade in **all** engineering courses and those mathematics and science courses specifically required for an engineering degree. These courses include differential and integral calculus and the calculus of several variables; differential equations; applied mathematics for engineers; engineering physics (minimum of 8 SCH's or equivalent, 12 SCH's recommended); general (inorganic), and where required organic, and physical chemistry; and where required physical, historical, structural, wellsite and petroleum geology; minerals and rocks; and stratigraphy. Any lower-division engineering course or any required basic science or mathematics course taken at the lower-division level in which a **D** was obtained must be repeated at either a community or 4-year college or university, or at U. T. Permian Basin if offered. Upper-division engineering, mathematic or science courses required for an engineering degree, in which a **D** was made must be repeated and a grade of **C** or better obtained in the course.

At graduation, all students must have completed the minimum ABET (Accreditation Board for Engineering and Technology) requirements. This means that, in addition to the above, each student must complete at least 6 semester credit hours of humanities courses beyond the 12 hours of history and political science/government already taken. Courses in sociology, anthropology, literature, psychology, philosophy, or other approved subjects related to man and his culture satisfy these humanities

Control Engineering
Bachelor of Science

Control Engineering

requirements, but it is strongly recommended that three of these be taken in American or British literature. These may be taken at the lower-division level prior to entering U. T. Permian Basin, or at U. T. Permian Basin.

Those students who are interested in the application of control engineering to chemical processes should take organic chemistry with laboratory (8-10 semester credit hours) in addition to the other lower-division courses. Those whose interests lie in the application of control engineering to geophysics and petroleum production should take physical and historical geology in addition to other courses.

The upper-division Control Engineering curriculum requires the following core courses, plus enough technical electives to total at least 68 semester credit hours of engineering and/or supporting science subjects. A minimum of 142 semester credit hours is required to complete the degree.

Core Curriculum

Freshman Year

First Semester		Second Semester	
Analytical Geometry	3	Calculus I	3
Chemistry I	4	Chemistry II	4
English I	3	English II	3
History/Gov U.S.*	3	Eng. Physics I	4
Eng. Drawing	3	History/Gov U.S.*	3
PE	½	PE	½
	16½		17½

Sophomore Year

First Semester		Second Semester	
Calculus II	3	Calculus III	3
Sci. Computer Prog.	4	Differential Eq.	3
Eng. Physics II	4	Eng. Physics III	4
History/Gov*	3	History/Gov*	3
Statics	3	Dynamics	3
PE	½	PE	½
	17½		16½

*Texas statutes require 6 SCH's or equivalent of U.S. history and 6 SCH's or equivalent of government or political science that includes study of the U.S. and State constitutions, with special reference to that of Texas.

Control Engineering
Bachelor of Science

Engineering

Junior Year

First Semester		Second Semester	
ENGR 315	3	ENGR 312	3
ENGR 323	4	ENGR 316	3
ENGR 333	3	ENGR 340	3
ENGR 331	4	ENGR 350	3
MATH 385	3	ENGR 380	4
		Technical Elective	3
	17		19

Senior Year

First Semester		Second Semester	
ENGR 403	3	ENGR 482	3
ENGR 435	3	ENGR 484	4
ENGR 441	3	ENGR 492	3
ENGR 483	3	Humanities Elective	3
Technical Elective	3	Technical Elective	6
Technical Elective	3		
	18		19

To round out a student's knowledge and ability to apply control engineering to industrial problems, technical electives must be chosen from among the non-required engineering courses, CHEM 401, 402, 403, and 404; GEOL 305, 308, 314, 427, and 454; CPSC 440, 450, and 460; and MATH 435, 440, and 445. ENGR 492 (Senior Project) is a special engineering projects course in which students complete a design and implementation program for an engineering system. Completion of this course demonstrates the competence of the graduating senior engineer. ENGR 483 is prerequisite and ENGR 484 is co-requisite to this senior project course.

Except as noted, all junior and senior courses require as a minimum mathematics through three semesters of calculus and differential equations, one year each of chemistry and physics, and one semester each of engineering mechanics-statics, engineering mechanics-dynamics and scientific programming (FORTRAN). Specific prerequisites beyond these are indicated in the course descriptions.

Course Listing

ENGR 309 Dynamic Analysis of Mechanical Systems (3)
Motions analysis in mechanical systems using Newton's laws. Includes particle motion, rigid body motion and problems in vibration. Prerequisites: Physics I, Calculus I, II, Statics. Corequisite: Differential Equations.

Control Engineering
Bachelor of Science

Course Listing

ENGR 312 Fluid Mechanics (3)
Principles of fluid mechanics applied to typical engineering fluid problems, emphasizing steady and unsteady measurement and control of fluid flow. Prerequisite: ENGR 333.

ENGR 315 Mechanics of Materials (3)
Methods of determining stresses present in structural members under axial, torsional, bending and shear loading. Analysis of plane stress and strain, combined stresses, deflection of beams, column design, and design using failure theories. Prerequisite: Statics.

ENGR 316 Materials Science (3)
Introduction to engineering materials and their properties and behavior under stress, compression, working and temperature changes.

ENGR 323 Electrical Circuit Analysis (4)
Electrical devices, DC and AC circuit theory including Kirchoff's laws and network theorems. Introductory electrical power systems, magnetic circuits, transformers, rotating machines and transducers. Includes laboratory stressing the fundamentals of electrical circuits measurements.
Prerequisite: Differential equations.

ENGR 333 Thermodynamics I (3)
Steady and unsteady materials and energy balances for typical engineering systems. Properties, charts, tables and equations of state for single component substances. Elementary cycle analysis.

ENGR 340 Engineering Systems Analysis I (3)
Modeling processes, response analyses and characteristics of systems. Includes differential and difference equations, transfer functions, Z-transforms, and state variable models and computer analysis of systems. Prerequisites: ENGR 315, 323, 333; MATH 331. Corequisite or prerequisite: ENGR 312.

ENGR 350 Systems Simulation (3)
Simulation of linear and nonlinear continuous and discrete systems using analog and digital computers. Use of personal computers in simulating engineering systems. Elementary identification methods. Prerequisite: MATH 331. Prerequisite or corequisite: ENGR 340.

Control Engineering
Bachelor of Science

Course Listing

ENGR 380 Electronic Systems (4)
Introductory analysis and design of analog and digital electronic systems and instrumentation including transistor models and circuits, operational amplifiers, digital circuits and other integrated circuit components. Includes laboratory on electrical devices. Prerequisites: ENGR 323.

ENGR 385 Engineering Economy and Management (3)
Methods of evaluating the economic feasibility of engineering projects. Time value of money, interest factors, evaluation criteria. Management of engineering projects.

ENGR 403 Fundamentals of Engineering Design (3)
Application of engineering science to design. Design philosophy, specifications, use of design aids and software. Solution of two- and three-week design problems. Prerequisites: ENGR 312, 315, 316, 323, 340, 380.

ENGR 410 Electrical Machinery and Power (3)
Principles of electromagnetic induction machines. Application of AC, DC and linear induction machines to control systems. Electric power production and distribution. Transmission lines. Prerequisite: ENGR 323, ENGR 380.

ENGR 430 Thermodynamics II (3)
Application of thermodynamic principles, including multicomponent systems. Free energy and equilibrium applied to systems involving mixtures and solutions, phase change and chemical reaction.
Prerequisites: ENGR 333, MATH 331.

ENGR 431 Chemical Process Dynamics and Control (3)
Chemical process characteristics. Modeling techniques including transfer functions, response analysis, state variable representation, proportional-integral-differential chemical process controller, and the simulation of linear and nonlinear chemical systems by digital and analog computers.
Prerequistes: CHEM 401, 402, 403; ENGR 340, 350. Corequisite: ENGR 441.

ENGR 434 Chemical Reactor Operations (3)
Rate processes for transformation of matter by chemical reaction, emphasizing equipment operation and control. Prerequisite: CHEM 401, 402, 403; ENGR 312, 313, 430.

ENGR 435 Heat Transfer (3)
Laws of conduction, convection and radiation heat transfer. Emphasizes steady and unsteady heat transfer situations appropriate to measurement and control of temperature. Prerequisite: ENGR 312, 333; MATH 331.

Control Engineering
Bachelor of Science

Course Listing

ENGR 436 Separation Process (3)
Rate processes for separating components of mixtures by the transfer of mass between phases of matter, emphasizing operation and control. Prerequisites: CHEM 401, 402, 403; ENGR 435.

ENGR 437 Oil and Gas Production (3)
Design and operation of pumping units and gas-lift and down-hole pumps. Tubing and string design. Surface oil/gas separation equipment, oil/water separation techniques, and lease facilities. Prerequisites: ENGR 312, 315, 333. Prerequisite or corequisite: ENGR 435.

ENGR 438 Drilling and Completion (3)
Rotary drilling hydraulics, drilling rigs, prime movers, drill bits, casing design, cementing, perforating and completion methods. Laboratory includes preparation and testing of rotary drilling fluids and work with chemical additives used in drilling fluids.
Prerequisites: ENGR 312, 315, 333.

ENGR 441 Measurement and Instrumentation (3)
Principles of mechanical, fluidic, and electrical measurements. Major control instruments (end devices) covered. Laboratory experimentation and demonstration included. Prerequisites: ENGR 312, 403, 440, 483.

ENGR 443 Reservoir Engineering I (3)
Production performance analysis using decline curve and material balance techniques. Natural water drive reservoirs and gas cap drive predictions. Steady and unsteady flow systems. Gas and gas condensate reservoir analysis. Prerequisites: ENGR 312, 333; GEOL 305, 308.

ENGR 444 Reservoir Engineering II (3)
Secondary and tertiary recovery performance analysis. Frontal drive concepts, pattern efficiency and pilot projects. Introduction to reservoir modeling. Prerequisite: ENGR 443.

ENGR 451 Mechanical Design (3)
Stress and deflection analysis, strain energy methods, statistical considerations, failure theories, fasteners, bearings and shafts, clutches, brakes and couplings and use of CAD systems. Prerequisites: ENGR 315, 316.

ENGR 455 Formation Evaluation (3)
Theory of well log interpretation. Electrical and resistivity measurements in reservoir rocks. Sonic and density logging and other methods employed in subsurface search for petroleum. Prerequisites: GEOL 305, 308.

Control Engineering
Bachelor of Science

Course Listing

ENGR 461 Environmental Control (3)
Theory of environmental control: air conditioning, refrigeration and heating systems, heat pumps, heating and cooling, passive solar design and active solar heating. Prerequisites: ENGR 435. Corequisite: ENGR 463.

ENGR 463 Environmental Control Laboratory (1)
Introduction to environmental control equipment, with experiments in air conditioning, refrigeration, heat pumps, solar collectors and dynamics of passive heat flow, ducting and fans. Prerequisites: ENGR 435. Corequisite: ENGR 461.

ENGR 470 Introduction to Signal Processing for Control Systems (3)
Introduction to signal processing methods. Sampling theory, signal analysis in the time and frequency domains. Elementary applications including data reduction techniques and signal reconstruction from digital data. Prerequisites: ENGR 340, 350, 380; MATH 331.

ENGR 482 Control System Design Laboratory (3)
Application of previously acquired competencies to design and test laboratory control systems. Prerequisite: ENGR 483. Prerequisite or corequisite: ENGR 403, 484.

ENGR 483 Continuous Control Systems (3)
Classical and modern methods of designing controllers for linear components; continuous control systems. Laboratory involves extensive work with computers and control hardware. Prerequisites: ENGR 340, 350. Prerequisite or corequisite: ENGR 441.

ENGR 484 Discrete Control Systems (4)
Analysis and design of linear control systems that include sample-data components. Emphasizes use of small digital computers in direct digital control of single and multivariable systems. Prerequisite: ENGR 483.

ENGR 487 Nonlinear Control Systems (3)
Introductory analysis and design of nonlinear control systems and optimal control of systems. Includes continuous and on-off control, time-optimal control and other optimal control strategies. Prerequisite: ENGR 483. Corequisite: ENGR 484.

Criminal Justice
Bachelor of Arts

Criminal Justice

Bachelor of Arts

Administered by the Division of Behavioral Science and Physical Education. Please refer to that section for general degree requirements.

Students who major in Criminal Justice will obtain a Bachelor of Arts degree. This interdisciplinary study is designed to enable students to work in a field which is increasingly linked to health care, social services and other human systems. Upon graduation students will have a strong foundation in criminal justice and related studies.

The Criminal Justice program at U. T. Permian Basin is committed to the personal, analytical and professional development of its students as law enforcement officers, correctional personnel and human resources personnel. The program is generally concerned with developing the student's sensitivity to the human and social condition, and particularly to the criminal justice system, coupled with an understanding and ability to constructively participate in the improvement of both.

The program concentrates on a comprehensive examination of major processes involved in the administration of criminal law, the criminalization of conduct, law enforcement, prosecution, defense, adjudication and corrections.

In a broader context, the program is concerned with the study of the nature and causes of crime; more effective organization and management of criminal justice resources; development of planning and research methods to aid in creation of new approaches to criminal justice; and the development of techniques to engender improvement and change where needed within institutions and agencies.

The Criminal Justice degree program is designed for students who have completed basic entry skills and vocational training in law enforcement, for persons already in a criminal justice related area or individuals having an interest in completing a bachelor's degree in this professional field.

Criminal Justice majors will elect to specialize in either law enforcement or corrections. All students must complete 12 semester credits of core courses and 18 semester credits in their specialization of either law enforcement or corrections.

Criminal Justice
Bachelor of Arts

Course Listing

CJUS 300 Introduction to Criminal Justice (3)
Survey of the problems of law enforcement and the criminal justice system in the United States. Topics examined include the system's history, its constitutional limitations, its philosophical background and the process used to achieve its goals.

CJUS 305 Police in America (3)
Ambivalent roles in law enforcement-order maintenance, protection of constitutional rights, enforcement, noncriminal services and social services. Role conflict. Development of police as a subculture.

CJUS 315 Criminal Investigation (3)
Scientific crime detection methodology including crime scene search, identification and lie detection.

CJUS 350 Criminal Justice Administration (3)
Administrative problems and their solutions in correctional and law enforcement programs.

CJUS 360 Organized Crime (3)
Historical survey of the role of organized crime in America, its economic and social consequences, and measures used to control its influence.

CJUS 392 Criminal Justice Practicum (3)
Agencies in criminal justice system as resources for internships or projects. May be repeated with instructor's approval.

CJUS 409 Criminal Justice Research Methods (3)
Elements of scientific perspective. Conceptual frameworks, access to and collection of data, research design, analytic techniques and reporting of findings.

CJUS 410 Criminal Law (3)
Legislature and criminalization of conduct, limits of criminal sanctions, evolution of substantive criminal law with emphasis on Texas, judiciary and policy formulation, and administration of criminal law.

CJUS 420 Corrections in America (3)
Overview of social, cultural, behavioral, political, psychological, sociological and economic causative factors of crime. Appraisal of correctional methods involved in prisons, probation, parole, work-release, half-way houses, community-based corrections and other settings.

Criminal Justice
Bachelor of Arts

Course Listing

CJUS 421 Probation and Parole (3)
History, philosophy and development of adult and juvenile probation and parole in the United States.

CJUS 422 Legal Foundations of Corrections (3)
Historical analysis of constitutional law, appellate and Supreme Court decisions and their impact upon correctional institutions.

CJUS 432 Theories of Criminal Behavior (3)
Principal theories of criminality and the application of these theories to research and corrections are examined.

Earth Sciences
Bachelor of Science

Bachelor of Science

Earth Sciences (BS)

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

A Bachelor of Science degree in Earth Sciences is primarily for those who plan to teach earth sciences at the elementary or secondary school level, who plan on graduate study in earth sciences education, or who desire a knowledge of the earth sciences but do not wish to actively practice the profession of geology.

For the Bachelor of Science in Earth Sciences the following general education courses are required:

Subject	Semester Hours
English	6
Literature	6
U.S. History	6
U.S. Government	6
Calculus I and II	6
College Physics	8
Inorganic Chemistry	8
Physical and Historical Geology	8

To provide a well-rounded background, the following distribution of coursework totaling 34 upper-division semester credit hours is required for the degree.

Group 1. Mineralogy+, optical mineralogy+, petrology+, petrography, carbonate petrology, geochemistry, volcanology: a minimum of 10 hours.

Group 2. Paleontology+, stratigraphy and sedimentation+, sedimentology, paleoecology, micropaleontology, carbonate depositional environments, clastic depositional environments, oceanography: a minimum of 8 hours.

Group 3. Structural geology+, plate tectonics, geophysics: a minimum of 4 hours.

Group 4. Petroleum geology, well-site geology, groundwater hydrology, mineral deposits, non-metallic deposits, engineering geology.

Earth Sciences
Bachelor of Science

Earth Sciences

Twelve additional hours from groups 1-4.

Noted courses (+) are required courses.

Students seeking teacher certification in geology or Earth Sciences as a second teaching field must complete a minimum of 24 semester credit hours to include: physical and historical geology, GEOL 307, 308, 314, and 440 plus the requirements set forth by the faculty of education. However, if the degree is to be a Bachelor of Science in Earth Sciences, all of the courses required for that degree must be taken.

Students minoring in geology or Earth Sciences are required to have physical and historical geology as well as GEOL 308, 314, and 440.

In addition to the required geology courses, a minor in mathematics, chemistry, computer sciences, life science, or physics, or a distributed minor (with an approved combination of mathematics, physics, chemistry and/or biology) of at least 12 upper level credits is recommended; other subjects may be used.

Economics
Bachelor of Arts

Bachelor of Arts

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

The Economics program is designed to prepare economists or to serve other disciplines such as accounting, finance, land management, management, marketing, engineering, government, education, sociology or history. Economics includes two broad areas, microeconomics and macroeconomics. Microeconomics is an area applicable to any study of human endeavor where scarce resources must be allocated among competing uses. It is the study of man's behavior in producing, exchanging and consuming material goods and services. Macroeconomics includes the study of the performance of the economy as a whole and includes such problems as inflation, unemployment and the rate of economic growth. Both programs at U. T. Permian Basin include forecasting so that individuals, firms and governmental bodies may adjust to anticipated economic conditions.

A basic understanding of economics is essential for a well-informed citizenry since most of today's problems have important economic aspects. It is also a vital discipline for, and is of practical value in, business decision-making. An understanding of the overall operation of the economic system puts businesses in a better position to formulate policies.

In spite of its practical benefits, economics is primarily an academic, not a vocational subject. In economics, problems are examined from a social, rather than an individual, point of view.

The undergraduate major in Economics prepares students for participation in public affairs, positions in business firms and government service. It provides a strong foundation for pre-law students and for further graduate study leading to teaching and research positions in universities; government and private enterprise.

Upper-level requirements consist essentially of the following:

Quantitative Techniques	6 credits
Free Electives	24 credits
Minor Field Outside Economics	12 credits
Concentration in Economics	18 credits

Economics
Bachelor of Arts

Economics

Sample Degree Plan

Junior Year

First Semester		Second Semester	
ECON 303	3	ECON 423	3
DSCI 301[1]	3	Minor Elective	3
ECON 322	3	MNGT 340[2]	3
Free Elective	3	ECON 415	3
Minor Elective	3	Free Elective	3
	15		15

Senior Year

First Semester		Second Semester	
ECON 425	3	ECON 407	3
Minor Electives	3	Minor Elective	3
Free Elective	9	Free Elective	9
	15		15

[1]DSCI 301 must be completed by the end of the first semester at U. T. Permian Basin.

[2]MNGT 340 must be completed by the end of the second semester at U. T. Permian Basin.

Course Listing

ECON 303 Intermediate Microeconomics (3)
Underlying assumptions of rational consumer behavior. Expected actions of profit-motivated firms under perfect and imperfect competitive conditions.

ECON 314 Physical Distribution Management (3)
Analysis development and management of integrated physical distribution systems. Transportation, warehousing, inventory control, material-handling and industrial location. Same as MRKT 314.

ECON 320 Labor-Management Relations (3)
Interpretations of collective bargaining agreements, their negotiation and administration, and methods for settling disputes. Same as MNGT 320.

ECON 322 Commercial Banking (3)
How banks, the Federal Reserve and U.S. Treasury interact to determine money supplies. Recent and current attempts to control inflation and unemployment. Same as FIN 322.

Economics
Bachelor of Arts

Course Listing

ECON 407 Econometrics (3)
Focus is on applied econometrics in estimating and testing simple, multiple and simultaneous equation models, including problems of multicollinearity, autocorrelation and generalized least squares.

ECON 410 Public Finance (3)
How government meets its stabilization, distributional and resource allocation functions through taxation and expenditure policies.

ECON 411 Physical Resource Management (3)
World resources in terms of how they are created and managed for business, social achievement and cultural process. Same as MNGT 411.

ECON 415 Government Regulation of Business (3)
History, institutions and theory of regulated business activity. Problems of public utility regulation. Cases in regulated industry, with emphasis on the petroleum/natural gas industry.

ECON 423 Intermediate Macroeconomics (3)
Theory of employment, price level and growth rate. Relationship between accepted theories and actual data in recent years. Issues raised by controls. Same as FIN 423.

ECON 425 Managerial Economics I (3)
Uses economic analytical tools including demand forecasting, resource allocation and cost profitability. Prerequisites: DSCI 301; MNGT 340.

ECON 435 Regional Economics (3)
Rural and urban resources, patterns of industry, regional problems of growth with emphasis on the Southwest region.

Education
Certification

Education

Student teachers will maintain the daily schedule and calendar required of public school supervising teachers to whom they are assigned. The length of student teaching will be 12 consecutive weeks of full day assignments as defined by the Education Division. Each program, whether it be Elementary, Secondary or All-level, requires that the student enroll in Seminar: Teacher Education during the student teaching seminar.

Deadlines for receipt of student teaching applications are given below. The application is due by the date indicated in the semester **prior** to student teaching. Further details are provided in the catalog and through your Education advisor.

Deadline	Student Teaching Semester
March 31st	Fall
October 31st	Spring

In order to be approved for the provisional teacher's certificate, the applicant shall pass exiting competency examinations. This set of tests is referred to as the Texas Educator Initial Certification Test (EXCET). The rules allow certification candidates to take the tests during their last semester of their certification program unless the last semester is during the summer. If the last semester is during the summer, students may take the tests during the previous spring semester. More information about the testing program is available through TEA or the Education Office.

U. T. Permian Basin prepares teachers under a performance-based teacher education plan. This approach is designed to assure that when students finish a teacher education program they are fully qualified to perform as teachers in the classroom. This means they have not only passed their courses, but they have also demonstrated knowledge of the subject matter they will teach and have competence to perform effectively.

Individuals holding a bachelor's degree and desiring to become certified to teach may enroll in the teacher education program as nondegree special students and limit their study only to required courses.

The Texas Education Agency requires college credit or examination credit in Texas and federal government and United States history prior to certification. The P-PST and other tests are usually required for all post-baccalaureate students. Individual plans are to be written and approved by the academic advisor and Teacher Certification Officer.

For the professional certification and master's degree program in education, see the Graduate Study section of the current U. T. Permian Basin Catalog.

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Combination of Subjects
(Only Required of Elementary Certification Students)

Course No.	Course Title	Semester Hours
Required (12 sh):		
MATH 300	Mathematics for Elementary Teachers	3
LFSC 303	Contemporary Human Health	3
EDUC 326	Children's Literature	3
EDUC 425	Reading in the Content Area	3
Select one (3 sh):		
MUS 322	Fundamentals of Music Theory	3
MUS 340	Music Appreciation	
ART 370	Elementary Art Education	
PHED 310	Motor Development	
PHED 320	Physical Education in Elementary Schools	
Select one (3 sh):		
GEOL 314	Rock and Minerals	3
NTSC 301	Contemporary Natural Science I	
NTSC 302	Contemporary Natural Science II	
LFSC 304	Science for the Elementary Teacher	
	Total semester hours in Combination of Subjects	18

Professional Development Sequence
(Schematic by Level)

Elementary

Course No.	Course Title	Semester Hours
EDUC 311	Human Growth and Development: Child	3
EDUC 344	Introduction to Educational Psychology	3
EDUC 390	Foundations of Education	3
EDUC 322	Teaching Language Arts in Elementary School	3
EDUC 323	Teaching Social Studies in Elementary School	3

Education
Certification

Education

EDUC 324	Teaching Science & Math in Elementary School	3
EDUC 325	Teaching Reading in Elementary School	3
EDUC 374	Student Teaching	6
EDUC 489	Seminar: Teacher Education (Elementary)	3
	Total Semester Hours	30

Secondary

Course No.	Course Title	Semester Hours
EDUC 344	Introduction to Educational Psychology	3
EDUC 390	Foundations of Education	3
EDUC 425	Reading in the Content Area	3
EDUC 332	The Theory & Practice of Teaching	6
EDUC 376	Student Teaching	6
EDUC 489	Seminar: Teacher Education (Secondary)	3
	Total Semester Hours	24

All-Level

Course No.	Course Title	Semester Hours
EDUC 311	Human Growth and Development: Child	3
EDUC 344	Intro to Educational Psychology	3
EDUC 390	Foundations of Education	3
EDUC 332	The Theory & Practice of Teaching	6
EDUC 425	Reading in the Content Area	3
EDUC 377	Student Teaching All-Level I	3
EDUC 378	Student Teaching All-Level II	3
EDUC 489	Seminar: Teacher Education (Elementary)	3
	Total Semester Hours	27

Students who seek teaching certification are subject to further requirements. For secondary certification, a second 24 semester credit hour field must be completed, the specific content of which should be worked out with the appropriate discipline. This second teaching field serves as the minor. For elementary certification, no minor is required, but considerable course work

Education
Certification

in education must be completed. Faculty in the Division of Education should be consulted for specific course and testing requirements for certification.

Prospective students are encouraged to contact U. T. Permian Basin faculty members in the appropriate discipline for assistance in planning lower-level programs or for more specific information about upper-level work. At least 18 semester credit hours in the major and 12 in the minor must be completed at the upper-level, though some disciplines may require more.

Lower Level Preparation

Lower Division or Community College Preparation

The appropriate transfer curricula for public junior colleges in Texas established by the Coordinating Board, Texas College and University Systems, will be accepted in its entirety and applied to appropriate degree programs. The student should note, however, that most programs in the Division require more mathematics and basic science than are usually listed in those transfer curricula.

Certain courses in some U. T. Permian Basin degree programs require preparatory courses which are not included in the transfer curricula. For specific requirements and prerequisites, the applicant should meet with a faculty member in his or her prospective discipline. Lower-level preparation for most programs in the Division will include 60 to 66 semester credit hours of work.

Requirements for General Education (all programs), Combination Subjects (Elementary) and each professional development sequence under the new Standards are provided below.

Provisional Teacher Certification
General Education Requirements

Minimum Requirements	Semester Hours
English [six semester hours	3
with emphasis on composition	3
skills] (12 sh)	6
Speech (3 sh)	3
American History (6 sh)	3
	3

Education
Certification

Education
Elementary Education

Political Science (6 sh)	3
	3
Natural Science [with lab] (4 sh)	4
Mathematics [content of College Algebra or above] (3 sh)	3
Computer Literacy (3 sh)	3
Electives [to be selected from at least two areas] (9 sh)	9
Behavioral Science Economics Foreign Languages Fine Arts Humanities	
Total semester hours in General Education	46

Course Listing

EDUC 311 Human Growth and Development: Child (3)
Emphasis upon understanding the psychology of human adjustment and the behavior patterns of children and youth.

EDUC 321 Teaching Strategies for the Elementary School (3)
Learning principles and their application in schools; selecting objectives and defining them operationally; designing and adapting plans to prekindergarten and elementary children; and selecting strategies and materials to implement plans. This course includes field experience at a public school.

EDUC 322 Teaching Language Arts in the Elementary School (3)
Developing skills of effective oral and written communication for prekindergarten and elementary teachers. Development of techniques and implementation of methods and materials in a teaching center.

EDUC 323 Teaching Social Studies in the Elementary School (3)
Social studies materials and methods for those seeking certification in prekindergarten and elementary levels.

EDUC 324 Teaching Science and Mathematics in the Elementary School (3)
Mathematics and science skills needed to teach new as well as traditional activities in prekindergarten and elementary levels.

Education
Certification

Course Listing

EDUC 325 Teaching Reading in the Elementary School (3)
Basic methods, trends, recent materials and issues in teaching reading.

EDUC 326 Children's Literature (3)
Literature intended for children. History and criticism of books for children, illustration of these books and recent trends in the use of literature.

EDUC 361 Children's Literature for the Bilingual Classroom (3)
Identification, selection and utilization of library material, both in English and Spanish, from preschool through the upper elementary age.

EDUC 461 Educational Psychology of the Bilingual Child (3)
Methods, materials, language organization and developmental principles affecting the bilingual child and his learning environment.

EDUC 462 Teaching the Bilingual Child (3)
Bilingual programs and orientation to various methods used in establishing bilingual programs.

EDUC 463 Methods of Teaching in the Bilingual Classroom (3)
Theories and methods of teaching science, math, reading, social studies and language arts in Spanish.

EDUC 493 Cultural and Learning: The Mexican-American (3)
Traditional concepts of education and their effects on the Mexican-American child due to interpretation and application. Definition of culture, influence of social institutions and the acculturation process.

Educational Foundations

EDUC 344 Introduction to Educational Psychology (3)
Emphasis on psychological principles directly applied to teaching. Factors underlying the teaching-learning process including theory, programming, discipline and problems of evaluation.

EDUC 390 Foundations of Education (3)
Selected valuational, epistemological and historical considerations related to education as a process of human development, as a social-political institution and as a profession.

EDUC 433 Theories of Learning (3)
Emphasis upon the major theories of learning, empirical evidence underlying them and their relevance to education.

Education
Certification

Course Listing

EDUC 312 Human Growth and Development: Adolescent (3)
A survey of developmental aspects of physical, social, emotional and cognitive growth. Emphasis is on the adjustment and behavior patterns of adolescents.

EDUC 331 Teaching Strategies for the Secondary School (3)
Learning principles, pupil grouping patterns and their implications in school; selecting objectives and defining them operationally; and designing plans and implementation through field experience and classroom simulation.

EDUC 332 The Theory and Practice of Teaching (3)
Field-based course in the discipline in which the student is majoring. Emphasis upon the content, methods and materials characteristic of the discipline.

EDUC 372 Student Teaching: Kindergarten (3)

EDUC 373, 374 Student Teaching: Elementary I, II (3, 6)

EDUC 375, 376 Student Teaching: Secondary I, II (3, 6)

EDUC 377, 378 Student Teaching: All Level I, II (3, 3)

EDUC 379 Student Teaching: Special Education (3)

Early Childhood

EDUC 411 Early Childhood Education: Development and Learning (3)
Literature of early childhood education with emphasis upon environmental factors affecting cognitive growth, socialization and achievement.

EDUC 460 Classroom Management (3)
Avoiding discipline problems by arranging the classroom environment and course content as well as controlling the consequences for learning. Same as PSYC 460.

EDUC 481 Educational Measurement for the Classroom and Teacher (3)
Principles of individual differences, evaluation and measurement; test construction and cultural problems in testing.

EDUC 492 Culture and Learning (3)
Interrelationship of culture and learning. Emphasis is upon environmental influences on socialization, cognition and achievement.

Education
Certification

Course Listing

EDUC 412 Early Childhood Education: Curriculum and Teaching (3)
Review and development of curriculum, materials and methods used in nursery school and kindergarten, focusing on the goals and purposes of programs.

EDUC 413 Language Development in Young Children (3)
Nature of language and the acquisition of language by the young child. Includes environmental influences and contingent effects on socialization, cognition and achievement.

EDUC 414 Cognitive Development in Young Children (3)
Major theoretical constructs and research findings relevant to the cognitive development of young children. Includes analysis of determinants of differences in cognitive functioning. Same as PSYC 442.

EDUC 415 Social and Emotional Development of the Child (3)
Major theories and research relevant to social and emotional development of children. Focuses on innate and environmental influences affecting development in families, schools and societies. Same as PSYC 443.

Special Education

EDUC 451 Education of Exceptional Children (3)
Exceptional children and their educational problems. Curriculum development and adaptation of selected methods and materials basic to teaching these exceptional children.

EDUC 452 Theory and Methods of Language/Learning Disabilities (3)
Theories and methodologies used in teaching and evaluating students with language/learning disabilities. Prerequisite: EDUC 451 or consent of instructor.

EDUC 455 Education of Exceptional Children in the Regular Classroom (3)
Identification and etiology of prevalent handicaps found in classes; curriculum development adaptation; and selected methods and materials for teaching these handicapped children.

EDUC 456 Theory and Methods in Education of the Mentally Retarded (3)
Theory, methods and basic curriculum for the educable mentally retarded in primary and intermediate levels. Curriculum content, specific materials and methods of instruction.

EDUC 457 Observation/Participation in Special Education (1-3)
Directed experiences in observation and participation in special education classrooms.

Education
Certification

Course Listing

EDUC 458 Materials and Methods for the Exceptional Child (3)
Instructional materials and the selection, analysis and use of materials for individualized instruction of the exceptional child.

Curriculum and Instruction

EDUC 416 Teaching English as a Second Language (3)
An introduction to theoretical and practical aspects of teaching English as a second language (written and oral) to non-English speaking learners.

EDUC 425 Teaching Reading in the Content Areas (3)
Skills and knowledge needed to evaluate and increase reading in specific content areas at all grade levels.

EDUC 427 Innovations and Strategies in the Social Studies (3)
Recent trends in social studies education, including professional issues, teaching strategies and new curriculum materials.

EDUC 428 Linguistics and Grammar for the English as a Second Language Teacher (3)
A survey of the structures of English as well as general issues in language such as language variation, non-verbal communication and uses of language.

EDUC 429 Language Development and Acquisition (3)
Theories of psycholinguistics and sociolinguistics applied to the acquisition of one or more languages in early childhood and school learning.

EDUC 430 New Strategies in Elementary Science Instruction (3)
Student will design, teach and refine sequences of instruction for children in elementary sciences, including use of materials from new elementary science programs.

EDUC 436 Advanced Problems in English as a Second Language (3)
A comparative and contrastive analysis of the interrelationships of language, culture and learning in the classroom setting.

EDUC 464 Mathematics for Preschool and Primary Child (3)
Development of strategies and materials for teaching mathematics based on growth, development and learning behavior of the young child.
Prerequisites: EDUC 311 and 344 or equivalent.

EDUC 465 Science for the Preschool and Primary Child (3)
Features the development of strategies and materials for teaching science activities that are based on growth, development and learning behavior of the young child.

Finance
Bachelor of Business Administration

Bachelor of Business Administration

Finance

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

Within a Finance degree there are four sub-areas of concentration: (1) financial institutions, (2) portfolio management, (3) insurance, and (4) real estate.

Finance coursework provides an understanding of the financial structure of the U.S. economy. It includes monetary theory and practice, investment management principles (especially those used in operating major financial institutions and pension funds), and finance functions in industrial and commerical firms (with emphasis on portfolio management, insurance and real estate).

The 3rd- and 4th-year requirements for the BBA in finance are included in the program outlined below:

Sample Degree Plan-Finance*

Sample Degree Plan

Junior Year

First Semester		**Second Semester**	
ACCT 300	3	MNGT 310	3
DSCI 301[1]	3	MRKT 314	3
ECON 303	3	FIN 423	3
MRKT 300	3	MNGT 340[2]	3
FIN 320	3	FIN 322	3
	15		15

Senior Year

First Semester		**Second Semester**	
FIN 333	3	MNGT 366	3
FIN 345	3	FIN elective	3
FIN Elective	3	FIN Elective	3
Business Elective	3	Business Elective	3
Business Elective	3	Free Elective	3
Free Elective	3		
	18		15

[1]DSCI 301 must be completed during the first semester at U. T. Permian Basin or before.

Finance
Bachelor of Business Administration

Finance

[2]MNGT 340 must be completed during the second semester at U. T. Permian Basin or before.

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

FIN 310 Free Enterprise (3)
Business and government interactions with emphasis on legislative and free enterprise attitudes and perceptions.

FIN 320 Financial Management Principles (3)
Business organization including corporate securities, financing through securities; expansion and combination including reorganization, receivership and dissolution and working capital and administration of incomes. Prerequisite: ACCT 300; DSCI 301.

FIN 322 Money and Banking (3)
How banks, the Federal Reserve and U.S. Treasury interact to determine money supplies. Recent and current attempts to control inflation and unemployment. Same as ECON 322.

FIN 326 Public Finance Theory and Practice (3)
Financial management principles and practices of public, nonprofit organizations. Prerequisite: FIN 320.

FIN 331 Evaluation and Appraisal of Real Estate (3)
The theory and practice of property evaluation, cost estimation, investment earnings and forecasts, principles, and technology.

FIN 333 Insurance Principles and Practices (3)
Life, casualty and property insurance.

FIN 342 Risk Management (3)
Treatment of risk and liability through retention, reduction and transfer.

FIN 345 Real Estate (3)
Real estate administration, financing, estimations, zoning and other environmental considerations.

Finance
Bachelor of Business Administration

Course Listing

FIN 421 Investment Management (3)
Securities analysis, portfolio management and capital budgeting decisions using both qualitative and quantitative economic measures.

FIN 423 Macroeconomics: Financial Forecasting (3)
Theory of employment, price level and growth rate. Relationship between accepted theories and actual data in recent years. Issues raised by controls. Same as ECON 423.

FIN 424 Financial Institutions (3)
Funds flow in aggregate financial systems, structure of financial markets, interaction of aggregate financial factors, and policies and operations.

Geology
Bachelor of Science

Geology

Bachelor of Science

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

Studies in geology prepare students for graduate work and for careers in the petroleum and mining industries. Those intending to pursue Geology as a teaching field should see the description of Earth Sciences.

For the Bachelor of Science in Geology the following general education courses are required:

Subject	Semester Hours
English	6
Literature	6
U.S. History	6
U.S. Government	6
Calculus I and II	6
College Physics	8
Inorganic Chemistry	8
Physical and Historical Geology	8
Fortran or Pascal	3

In addition to the required courses, the following are strongly recommended:

For those desiring to specialize in paleontology:	
biology	8
For those desiring to specialize in petroleum geology/-organic geochemistry:	
organic chemistry	6-8
For those desiring to specialize in geophysics or physical geology:	
3rd semester physics	4
3rd semester calculus	3
differential equations	3
For those desiring to specialize in geochemistry or chemical geology, including petrology and ore deposits:	
analytical chemistry	3-6
differential equations	3

Geology
Bachelor of Science

To provide a well-rounded background, the following distribution of coursework totaling 37 upper-division credit hours is required for the degree.*

Group 1. Mineralogy +, petrology +, optical mineralogy +, petrography +, carbonate petrology, geochemistry, volcanology: a minimum of 13 hours.

Group 2. Paleontology +, stratigraphy and sedimentation +, sedimentology +, paleoecology, micropaleontology, carbonate depositional environments, clastic depositional environments, oceanography: a minimum of 11 hours.

Group 3. Structural geology +, plate tectonics, geophysics: a minimum of 4 hours.

Group 4. Petroleum geology, well-site geology, groundwater hydrology, mineral deposits, non-metallic deposits, engineering geology: a minimum of 3 hours.

Group 5. Summer field geology +, 6 hours.

Noted courses (+) are required courses.

*In addition to the required geology courses, a minor in mathematics, chemistry, computer science, biology/life science, physics, or a distributed minor (with an approved combination of mathematics, physics, chemistry and/or life science/biology) of at least 12 upper level credits is required.

Course Listing

In addition to any specific listed prerequisites, physical and historical geology are prerequisites for all courses except GEOL 314 (Minerals and Rocks) and GEOL 323 (Environmental Geology).

GEOL 302 Geomorphology (3)
Surface features of the globe, their form, nature, origin and development, and the changes they are undergoing.

GEOL 303 Mineralogy (4)
Identification, classification, and origin of minerals based on their chemical and physical properties and geologic association. Prerequisites: one year of inorganic chemistry and one year of physics.

Geology
Bachelor of Science

Course Listing

GEOL 304 Petrology (3)
Study of the characteristics, identification in hand specimen, distribution, and origin of igneous, sedimentary, and metamorphic rocks. Prerequisite: GEOL 303 or equivalent.

GEOL 305 Structural Geology (4)
Principles of structural geology, including theory of rock behavior under stress, and descriptions of major structural features. Prerequisites: one year of calculus and one year of physics.

GEOL 306 Optical Mineralogy (3)
Optical crystallography and identification of minerals using the polarizing microscope. Prerequisites: GEOL 303 or equivalent and one year of physics, including optics.

GEOL 307 Introduction to Paleontology (4)
History and evolution of life based on fossil evidence.

GEOL 308 Stratigraphy and Sedimentation (4)
Principles of stratigraphy and sedimentation including weathering, transport, deposition, and characteristics of sedimentary rocks, and their correlation. Stratigraphic and paleotectonic development of North America and classical areas elsewhere in the world. Prerequisite: GEOL 303 or 314. Strongly recommended: GEOL 305, 307.

GEOL 314 Minerals and Rocks (3)
Rock-forming minerals and common igneous, sedimentary, and metamorphic rocks. Includes laboratory. Not for geology majors.

GEOL 323 Environmental Geology (3)
Relationships of earth science to human problems and the environment, especially geological problems associated with mass urban growth. Not for geology majors.

GEOL 400 Field Geology (6)
Field techniques for systematic geologic mapping utilizing topographic maps. Prerequisites: GEOL 304, 305, 307, 308.

GEOL 401 Skeletal Petrography (3)
Identification of skeletal particles as seen in thin section. Prerequisites: GEOL 306, 307.

Geology
Bachelor of Science

Course Listing

GEOL 403 Carbonate Petrology (3)
Description and classification of carbonate rocks. Recrystallization, diagenesis, and porosity formation. Prerequisite: GEOL 306.

GEOL 405 Physics of the Earth (3)
Physical properties of the solid earth. Applications to the plate tectonics theory. Prerequisites: GEOL 304 and 305, one year of calculus and one year of physics.

GEOL 406 Exploration Geophysics (3)
Geophysical techniques employed for exploration work. Includes seismic, gravimetric, magnetic, and electrical methods. Prerequisite: GEOL 405.

GEOL 408 Geochemistry (4)
Geological and chemical processes that produced the observed distribution and abundances of the elements. Prerequisite: GEOL 304.

GEOL 409 Sedimentology (3)
Processes of weathering, transportation, and deposition of sediments, including low-temperature geochemistry and diagenesis. Characteristics and attributes of sedimentary rocks including formation of permeability and porosity, and interpretation of the sedimentary record.
Prerequisites: GEOL 304, 305, 308.

GEOL 410 Micropaleontology (3)
Microscopic study of fossils and principles underlying their use relative to correlation problems. Emphasizes fossil groups recoverable from well drill cuttings. Prerequisite: GEOL 307.

GEOL 412 Carbonate Depositional Environments (3)
Modern carbonate depositional environments emphasizing their sedimentary and paleontological characteristics. Prerequisites: GEOL 304, 306, 307, 403, 409.

GEOL 414 Clastic Depositional Environments (3)
Physical nature of modern and ancient siliclastic deposits emphasizing use of modern analogs in interpretation of ancient deposits.
Prerequisites: GEOL 304, 306, 307, 409.

GEOL 415 Plate Tectonics (3)
Analysis of tectonic forces responsible for redistribution of major portions of the earth's crust. Prerequisite: GEOL 405.

Geology
Bachelor of Science

Course Listing

GEOL 417 Petrography (3)
Description, classification, and origin of igneous, sedimentary, and metamorphic rocks. Laboratory course utilizing thin sections and the polarizing microscope. Prerequisite: GEOL 304, 306.

GEOL 422 Oceanography (3)
Geological, physical, chemical, and biological aspects of the marine environment, including marine geomorphology and depositional environments.

GEOL 423 Nonmetallic Mineral Deposits (3)
Origin, geologic association, and development of nonmetallic deposits. Exploration and environmental factors controlling development and economic trends will be considered. Prerequisite: GEOL 304.

GEOL 424 Metallic Mineral Deposits (3)
Origin, characteristics, and migration of ore-bearing solutions; controls of ore deposition; and geologic associations, distribution, exploration for, and exploitation of metalliferous deposits. Prerequisites: GEOL 305, 417.

GEOL 425 Groundwater Hydrology (3)
Theory and engineering concepts of groundwater flow and development; relationship of groundwater and surface water; occurrence of water in rocks; and basin analysis. Prerequisite: GEOL 409.

GEOL 426 Engineering Geology (3)
Application of geology to evaluation of construction problems and site investigations of major engineering projects, including case histories of major projects; characteristics and uses of geologic construction materials. Prerequisite: GEOL 425.

GEOL 427 Petroleum Geology (3)
Origin, nature, migration, and accumulation of petroleum; coal and oil shale; exploration for and exploitation of mineral fuel deposits. Prerequisites: GEOL 308, 454.

GEOL 431 Paleoecology (3)
Principles, concepts, and techniques of environmental analysis and interpretation of marine and terrestrial fossil ecosystems. Prerequisite: GEOL 307.

GEOL 440 Earth Resources and the Energy Crisis (3)
Geology, origin, and general economics of mineral and fuel deposits, their importance to the national economy, and current problems of supply.

Geology
Bachelor of Science

Course Listing

GEOL 451 Imagery and Map Interpretation (3)
Analysis and interpretation of space and aircraft imagery, photography, and topographic and thematic maps, including land descriptions.

GEOL 454 Well-Site Geology (3)
Methods employed in the subsurface search for petroleum.
Prerequisite: GEOL 304 and 305.

GEOL 456 Texas Geology (3)
Geologic history of Texas supplemented with field trips to some unique geologic features that occur within Texas.

GEOL 457 Volcanology (3)
Volcanoes and volcanic rocks. Prerequisites: GEOL 305, 417.

GEOL 493 Research (1-4)
Variable credit involving field, laboratory and/or library research in geological problem solving.

Health Science

Health Sciences
Pre-Professional

Professional schools in health sciences seek well-trained, versatile students who, in addition to displaying leadership, social maturity and human-relations skills, possess the physical, emotional and intellectual stamina required for a successful career in medicine, dentistry, osteopathy and others. Toward that end, undergraduate students should concentrate their studies in a primary area of interest, realizing that usually the professional school admissions committee is more interested in the quality and scope of the work than in the major field chosen.

Absolute requirements for professional schools are deliberately kept minimal, permitting students wider flexibility in choosing academic programs that best fit their individual interests. These requirements normally include at least one year of English, two years of chemistry and one year each of physics, mathematics and biology.

Concepts and vocabulary common to the sciences and basic to the study of medicine, are essential. In addition, a thorough understanding of the fundamentals of chemistry, physics, biology and mathematics is mandatory as many advances in medicine are based on developments in these disciplines.

Specific requirements may vary slightly among professional schools, making it prudent for students to identify early in their academic career the specific requirements established by the professional schools of their choice. Because of the extremely competitive nature of professional schools admissions, students are strongly advised to pursue an undergraduate degree program that will permit several career alternatives.

Information on the requirements of specific schools, factors involved in the school admission process, finances, the admissions examination and other matters of interest to preprofessional students may be obtained from the Health Services Advisory Committee of the university. Interested students should contact the Director of the Division of Science and Engineering.

History
Bachelor of Arts

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

The study of history represents man's attempt to understand the past, not only what happened but why it happened. It has been said that those who ignore history are doomed to repeat the mistakes of the past. Thus, the study of history leads to an understanding of man's present behavior, customs and traditions, and also provides a basis for understanding future developments.

History is an ideal major for students preferring a broad liberal arts education. It also provides good preparation for a number of careers including government, industry, writing and other fields. History is a basic major for those preparing to teach history or social studies at all levels.

The history program provides preparation typical of baccalaureate degree programs in history elsewhere, while at the same time allowing flexibility so students may build an emphasis in an area or areas of special interest. Students may enrich their experiences through regularly offered travel study courses in the United States and other nations.

Students who have completed two courses in American history before enrolling at U. T. Permian Basin may include them in the 30 hours of credit in history required for majors. While there are no specifically required courses for majors, students must include 6 credit hours in non-United States history fields such as Latin American or European history. It is desirable that these courses be upper level and completed during the first year of residence. Students majoring in History also must complete one course of a seminar format, preferably during their second year. Other courses are selected by students and their advisors in the context of background, preparation, interests, needs and professional plans.

The overall curriculum result should provide well-rounded coverage at the upper level in American history from colonial to modern times, in world history, and in topic areas of special interest to the individual.

A minor in history consists of 18 hours, 12 of which must be at the upper-level.

Students needing to satisfy Texas state statute requirements may do so by successfully completing any two United States or American history courses marked with a *.

History
Bachelor of Arts

Course Listing

HIST 314 Modern Latin America (3)
Political, social, cultural and economic development of South America and Caribbean from Independence to the present.

HIST 326 Europe Since 1815 (3)
Major social, economic, political and intellectual developments in Western Europe from 1815 to the present.

HIST 331 Tudor-Stuart England (3)
Political, religious, economic and social development of England between 1485 and 1714.

HIST 332 Great Britain Since 1714 (3)
Political, economic and social development of Great Britain and its empire from 1714 to the present.

HIST 334 Modern Russia (3)
Russia since the time of Peter the Great with special emphasis on the Bolshevik Revolution and the emergence of the Soviet Union.

***HIST 351 Modern Texas (3)**
Political, social, economic, and historical development of modern Texas. Includes field work in state and local history.

***HIST 353 Southwestern United States (3)**
Development of analytical and writing skills through use of primary source materials relating to regional history. Training and practice in oral history techniques.

***HIST 371 American Minorities (3)**
Experiences and contributions of minorities in the development of American political and cultural traditions and institutions.

HIST 411 Modern Mexico (3)
Political, social, cultural and economic development of Mexico from Independence to the present.

HIST 436 Nazi Germany (3)
Seminar for reading, research and discussion of the rise and fall of Hitler's Third Reich.

History
Bachelor of Arts

Course Listing

HIST 437 Studies Through World Travel (3) (*title may vary*)
Intensive classroom preparation followed by guided travel to countries and sites of outstanding historical importance.

HIST 439 Studies in World History (3) (*title may vary*)
Reading, research and discussion on selected topics in world history.

***HIST 441 Colonial America (3)**
Founding and development of the North American colonies to 1776 with special emphasis on the interaction among the European, native American, and black peoples.

***HIST 443 America 1776-1848 (3)**
Founding and development of the new American nation through the age of Jackson.

***HIST 445 America 1848-1898 (3)**
Sectionalism, Civil War, Reconstruction and the Gilded Age.

***HIST 447 Twentieth Century America to 1941 (3)**
Political, economic and social domestic affairs contributing to the twentieth century development of industrial, urban America through the New Deal.

***HIST 448 Twentieth Century American Since 1941 (3)**
Political, economic, and social affairs contributing to the twentieth century development of industrial, urban America since World War II.

***HIST 455 Western Frontier (3)**
The expansion of population to the Mississippi River and The Old Northwest.

***HIST 456 Trans-Mississippi West (3)**
Social, economic, and political development during the nineteenth and twentieth centuries.

***HIST 461 American Foreign Relations to 1920 (3)**
Foreign policy and relations involved in the development of America from the Revolution through World War I.

***HIST 462 American Foreign Relations Since 1920 (3)**
Foreign policy and relations involved in the development of America in the period from 1920 to the present.

History
Bachelor of Arts

Course Listing

HIST 463 U.S.-Latin America Relations to 1920 (3)
Historical literature covering major developments and problems in relations between the United States and Latin American nations to 1920.

HIST 464 U.S.-Latin American Relations Since 1920 (3)
Historical literature covering major developments and problems in relations between the United States and Latin American nations since 1920.

***HIST 468 Business in Modern America (3)**
Modern practice and theory; the role of entrepreneur and government regulation since the Civil War.

***HIST 473 Urban America (3)**
The processes of urbanization in the United States from its origins to the present.

HIST 474 Historic Preservation (3)
Examination of the methods, goals and contributions of the preservation and restoration of the built environment in material culture and public history.

***HIST 475 Women in Early America (3)**
Changing nature of the family and the role of women in America from the seventeenth to the mid-nineteenth century.

***HIST 476 Women in Modern America (3)**
Changing nature of the role of women in America from the late nineteenth century to the present.

***HIST 477 Studies Through American Travel** (*title may vary)*
Intensive classroom preparation followed by guided travel to sites of outstanding historical importance in the United States.

***HIST 479 Studies in American History (3)**
Reading, research and discussion on selected topics in history.

***These courses meet the State of Texas requirements for History.**

Humanities
Bachelor of Arts

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

The Bachelor of Arts degree program in Humanities is multidisciplinary and is designed for the student desiring a liberal arts education but not wishing to specialize. The program focuses primarily on humanistic studies as they have been traditionally conceived.

The humanities concentration is considered a wise choice for a student who is non-vocationally oriented or who is planning postgraduate study in law, theology, the liberal arts and certain other fields.

A degree in Humanities requires 120 semester credits, including 54 credits in two to four of the following fields: art, foreign language, history, literature, music, philosophy and theatre.

At least two-thirds of courses in the Humanities concentration must be taken at the upper level. With the prior approval of the advisor, the student's program may include a course or courses in a field other than those listed above. Approval will be based on the advisor's determination that the course or courses contain significant humanities content. The specific program must be devised by the student in consultation with the advisor to meet the broad requirements outlined above. It must, in addition, demonstrate intellectual coherence and reflect the student's thoughtful consideration of his educational background and professional and intellectual goals. No minor is required in the Humanities concentration.

Land Management
Bachelor of Business Administration

Land Management

Bachelor of Business Administration

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

The key to the past, present and future of economic development in the Permian Basin, the United States and, indeed, much of the world, is land/resource information. Land managers are those specialists who assemble land information which includes land ownership, taxation, assessment, presence of minerals, soil types, rights-of-way, spatial relationships and economic potential. Land managers gather, organize and apply the knowledge generated by planners, explorers, legislators, engineers, insurers, appraisers, lenders, builders and surveyors to effect transactions between buyers and sellers of land that result in the creation of resources.

Successful transactions dealing with land may employ a range of information to include physics, chemistry or geology of an oil field and such labor intensive activities as searching land titles and assessment data. The background of information applied by land managers may include geodetic and earth-resource satellites, aerial photogrammetry and computers to city, county, state and national land and resource records.

In brief, land management, especially throughout the Permian Basin, makes up a significant part of an economy based on mineral exploration, production and right-of-way. Land management requires skills and technical knowledge in the areas of land acquisition encompassing minerals, royalties, rentals, titles, tax and record maintenance. Individuals who have made land management their career have acquired their expertise through experience, apprenticeship programs or formal education. Most agree that the ideal preparation is a mix of practical experience built upon a formal university program.

With this career goal in mind, the Division of Business Administration offers a Bachelor of Business Administration in Land Management. Although emphasis in a program at U. T. Permian Basin might be placed on petroleum exploration and acquisitions, the concepts, techniques and skills have carry-over applications for other mineral development activities and areas. Importantly, the breadth of knowledge and techniques useful to land managers when combined with a need to meet the requirements for a BBA degree make the program highly structured and leave little room for electives. At U. T. Permian Basin, the program requires 125 semester credit hours.

Land Management
Bachelor of Business Administration

Sample Degree Plan-Land Management*

First Semester		**Second Semester**	
MNGT 310	3	MRKT 314	3
MRKT 300	3	FIN 320	3
MRKT 407	3	BLAW 321	3
DSCI 301[1]	3	ACCT 300	3
GEOL 315	6	MNGT 340[2]	3
	18		15

First Semester		**Second Semester**	
FIN 345	3	GEOL 308	4
ECON 411	3	ENGR 424	3
REAL ESTATE LAW	3	MNGT 366	3
ECON 415	3	BLAW 322	3
		MNGT SEMINAR	3
	12		16

*Must complete both historical geology and physical geology before enrolling in the geology courses listed in degree plan.

[1]DSCI 301 must be completed during first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed during second semester at U. T. Permian Basin or before.

Sample Degree Plan

Junior Year

Senior Year

Life Science
Bachelor of Science

Life Science

Bachelor of Science

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

Courses in life science apply to the Bachelor of Science degree with a major in Life Science, to a minor in Life Science, and to the first and second teaching fields in education. The courses also may be used as electives in other degree programs. Programs in life science provide preparation for careers in elementary, secondary and college teaching; research in basic and applied biological sciences; medicine; veterinary medicine; dentistry and other health-related fields. Life science is a good supporting field for majors in chemistry, geology, psychology, anthropology, physical education and the behavioral sciences.

It is recommended that the following courses be completed prior to enrolling at U. T. Permian Basin.

Subject	Semester Hours
English Composition	6
Literature (or equivalent)	6
U.S. History	6
American Government	6
Inorganic Chemistry	8
Biology	8
College Algebra (or equivalent)	3

Preprofessional students in the health sciences should include such other lower-level courses as are required for admission to specific professional schools. Students who desire to use Life Science as the minor field of study should complete one year of biology prior to enrolling at U. T. Permian Basin. Students transferring credits to U. T. Permian Basin in clinical courses such as nursing, medical technology and other allied health areas should consult with the Life Science chairman to determine the number of credits that may apply toward a degree. The Life Science faculty will help students design programs of study to satisfy specific career objectives.

Life Science
Bachelor of Science

Life Science

The Life Science program consists of 3 distinct plans. Plan A is for students planning to enter graduate school or professional school, including medicine, dentistry, veterinary medicine, medical technology and other health professions. This preprofessional degree plan includes a minimum of 40 semester credits in the major with at least 28 credits of upper-level courses including LFSC 300, 301, 320, 321, 440, 441, 442, 452, and 453. One year each of physics, inorganic chemistry and organic chemistry, and one semester of calculus is required; it is **strongly** recommended that these be taken **prior** to enrolling at U. T. Permian Basin.

Plan B is for students who are in the teacher certification program. A first or second teaching field in Life Science with elementary or secondary teacher certification includes 24 semester credits in life science of which 18 must be upper-level courses. LFSC 303, 343 or 440, 350, 351, 442, and 454-455 or 472-473 or their equivalents are required. Students desiring secondary certification (either first or second teaching field) must include one semester of organic chemistry with laboratory.

Plan C is designed for students not planning a career in biology and not entering a professional school. It includes 36 semester credits in the major with at least 24 upper-level credits. Plan C allows for more flexibility of course selection than plans A and B. Only one year of chemistry is required. Consult with the faculty chairman for the preparation of a degree plan.

A minor in Life Science consists of 18 semester credit hours of which 12 must be upper level. It must include one course in genetics and one in evolution.

Course Listing

All courses in life science require one year (two semesters) of basic college biology, with laboratory, and college chemistry, with laboratory, except as otherwise noted under the course descriptions.

LFSC 300 Microbiology (3)
Growth, morphology, metabolism and ecology of microorganisms.

LFSC 301 Microbiology Laboratory (1)
Techniques for study of microorganisms. Corequisite: LFSC 300.

Life Science
Bachelor of Science

Course Listing

LFSC 303 Contemporary Human Health (3)
Biological basis of major health problems related to nutrition, exercise and environment. No prerequisite.

LFSC 307 Parasitology (3)
Host-parasite relationships and survey of animal parasites of medical and veterinary importance. Offered alternate years.

LFSC 320 Cell Biochemistry (3)
Structure, function and integration of cell components. Prerequisite or corequisite: one semester of organic chemistry.

LFSC 321 Cell Biochemistry Laboratory (1)
Quantitative experiments and techniques in the study of cellular activities. Prerequisite or corequisite: LFSC 320.

LFSC 330 Plant Morphology (1)
Structure, development, reproduction and relationship of the major plant groups. Prerequisite: one course of lower-division biology. Offered alternate years.

LFSC 331 Plant Morphology Laboratory (3)
Morphology and taxonomy of the major plant groups.
Corequisite: LFSC 330. Offered alternate years.

LFSC 343 Human Genetics (3)
Mechanisms of inheritance of human traits. Not for preprofessional life science majors (Plan A).

LFSC 350 Human Anatomy and Physiology (3)
Human anatomical systems and their physiological functions with special emphasis on the skeletal, muscular, nervous, circulatory and respiratory systems. Primarily for physical education majors and teacher certification. Prerequisite: 4 credits of lower-division biology.

LFSC 351 Human Anatomy and Physiology Laboratory (1)
Anatomy of the human and cat. Corequisite: LFSC 350.

LFSC 398 Science Seminar (1)
Interaction and small group discussions of varied topics in life science.

LFSC 401 Virology (3)
Structure, composition, replication and host interactions of animal, plant and bacterial viruses. Prerequisite: LFSC 300 or 320 and 440; one semester of organic chemistry. Offered alternate years.

Life Science
Bachelor of Science

Course Listing

LFSC 423 Immunology (3)
Structure and function of the mammalian immune system.
Prerequisite: LFSC 300, 320, and 440. Offered alternate years.

LFSC 440 Genetics (3)
Structures and functions of hereditary material, emphasizing recent developments. Prerequisite: LFSC 300, 320.

LFSC 441 Laboratory in Genetics (1)
Laboratory experiences in manipulation of genetic systems and interpretation of data. Prerequisite: LFSC 301 or equivalent; Corequisite: LFSC 440.

LFSC 442 Evolution (3)
Population variation and mechanism of evolution and speciation.
Prerequisite: 8 credits of biology; Corequisite: genetics.

LFSC 452 Animal Physiology (3)
Development, function and mechanism of action of the major physiological systems in animals. Prerequisite: LFSC 320.

LFSC 453 Animal Physiology Lab (2)
Experiments and demonstrations of physiological phenomena.
Corequisite: LFSC 452.

LFSC 454 Animal Behavior (3)
Control and physiological basis of animal behavior. Offered alternate years.

LFSC 455 Animal Behavior Laboratory (1)
Experimental studies to observe and quantify the behavior of animals.
Corequisite: LFSC 454. Offered alternate years.

LFSC 456 Endocrinology (3)
The endocrine system and control of bodily functions.

LFSC 472 Ecology (3)
Analysis of the principles of population and community ecology.
Prerequisite: 8 credits in chemistry. Offered alternate years.

LFSC 473 Ecology Laboratory (1)
Experimental studies to illustrate population and community ecology techniques. Corequisite: LFSC 472. Offered alternate years.

LFSC 475 Field Biology (3-6)
Field problems in the Permian Basin. Prerequisite: 12 credits of biology.
Offered summers only.

Literature
Bachelor of Arts

Literature

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

The goal of the Literature program is to enable the student to develop the professional skills of the literary critic, scholar and teacher; to read intelligently and imaginatively; and to write and converse about literature knowledgeably and articulately.

The student who chooses Literature as a major should select courses to the following guidelines.

1. Two semesters of Freshman English or composition and language study are a prerequisite for the major in Literature.

2. Thirty semester hours of courses at the sophomore level and above are required for the major, with a minimum of 18 hours at the upper-level.

3. Courses in the major are to be distributed as follows:
   Group I, British Literature to 1800 (3 hours)
   Group II, British Literature since 1800 (3 hours)
   Group III, American Literature to 1865 (3 hours)
   Group IV, American Literature since 1865 (3 hours)
   Group V, Language, Grammar and Composition (3 hours)
   Group VI, Literary Criticism (3 hours)
   Electives from the six groups or other courses are available. (12 hours)

   At least six hours of those outlined above must be devoted to a broad survey of literature, 3 hours in American and 3 in British. These may be taken as lower division work; if taken at U. T. Permian, select either 301 or 302, and either 321 or 322. Degree plans should also include a variety of genres, with courses in poetry, fiction and drama represented.

A Literature minor includes 18 semester hours at the sophomore level and above, which should be selected in consultation with a Literature advisor according to the principle of broad coverage outlined for the major. At least 12 semester hours must be at the upper-level.

Literature
Bachelor of Arts

Sample Degree Plan

Sample Degree Plan-Literature with Certification*

Junior Year

First Semester		Second Semester	
LIT 301 (Group III, survey)	3	LIT 402 (Group IV, poetry)	3
LIT 322 (Group I, survey)	3	LIT 471 (Group V)	3
LIT 362 (Group VI)	3	Course in Minor	3
Course in Minor	3	EDUC	6
EDUC	3	Elective	3
Elective	3		
	18		18

Senior Year

First Semester		Second Semester	
LIT 469 Shakespeare (drama)	3	LIT 412	3
LIT 432 (Group II, fiction)	3	Course in Minor	3
Courses in Minor	6	EDUC	3
EDUC	6	Student Teaching	6
	18		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

LIT 301 American Literature to 1865 (3)
Chronological examination of writers, works and movements in fiction, non-fiction and poetry through 1865.

LIT 302 American Literature Since 1865 (3)
Chronological examination of writers, works and movements in fiction, non-fiction and poetry from 1865 to the present.

LIT 321 British Literature to 1800 (3)
Chronological survey of major works in British literature from Beowulf to the literature of the Augustans (about 1800).

LIT 322 British Literature Since 1800 (3)
Chronological survey of major works of British literature from the Romantics (about 1800) to the Modern Period.

LIT 351 Short Fiction (3)
Reading and critical analysis of British, European and American short fiction with emphasis on generic study and textual explication.

Literature
Bachelor Arts

Course Listing

LIT 371 The English Language (3)
Survey of topics in modern linguistics as they pertain to English. Includes phonetics, phonology, morphology, theories of grammar, language origin and diversity, and the history of the English language.

LIT 401 19th Century American Poetry (3)
Development and influence of indigenous American poetry. Analysis of the theories and practice of major poets. Course stops at 1900.

LIT 402 20th Century American Poetry (3)
Development and influence of indigenous American poetry. Analysis of the theories and practice of major poets, 1900 to the present.

LIT 405 American Drama (3)
Historical development of American drama; types of dramatic literature and masterpieces in American drama.

LIT 411 19th Century American Fiction (3)
Masterpieces in American prose fiction, through the late 19th century.

LIT 412 20th Century American Fiction (3)
Masterpieces in American prose fiction, late 19th century to the present.

LIT 421 British Poetry to 1800 (3)
Poetry as a literary genre through major works of British poetry from the Middle Ages to 1800.

LIT 422 British Poetry Since 1800 (3)
Poetry as a literary genre through major works of British poetry from 1800 to the present.

LIT 425 British Drama to 1800 (3)
Drama as a literary genre through major works of British drama from the Middle Ages to 1800.

LIT 426 British Drama Since 1800 (3)
Drama as a literary genre through major works of British drama from 1800 to the present.

LIT 431 The Eighteenth Century British Novel (3)
The origin and development of the British novel from Defoe to Austen. Prerequisite: LIT 351 or consent of instructor.

Literature
Bachelor of Arts

Course Listing

LIT 432 The Nineteenth-Century British Novel (3)
The development of the British novel in the nineteenth and early twentieth centuries. Prerequisite: LIT 351 or consent of instructor.

LIT 433 The Twentieth-Century British Novel (3)
The development of the British novel in the twentieth century. Prerequisite: LIT 351 or consent of instructor.

LIT 450 The Bible as Literature (3)
Selected books of both Old and New Testaments studied to develop an understanding of their variety and literary value. Some attention will be given to historical and geographical contexts.

LIT 452 Comparative Fiction Since 1800 (3)
Novella and novel from 1800 to the present. Authors include major writers from Europe, Asia and Latin America. Works read in translation.

LIT 459 Studies in Literature (3)
Specific periods, themes, authors or literary types. Contents vary according to the interest, needs and capabilities of the instructor and students.

LIT 461 Literary Criticism (3)
A study of the history and methods of literary criticism, from Plato to the present, as these are relevant to current theory and practice.

LIT 462 Poetry: Forms and Themes (3)
Close reading and explication of representative poems in the Anglo-American tradition, with emphasis on analysis of poetic language and elements of form. No prerequisites. Recommended for all majors.

LIT 469 Studies in a Major Author (3)
Works of a major author in American, British or world literature.

LIT 471 The Teaching of Writing (3)
Study of current theories and methods of teaching writing. Primarily intended for students seeking secondary certification.

LIT 472 English Grammar (3)
A systematic study of English grammar with attention to both traditional and contemporary approaches to grammatical analysis.

Management
Bachelor of Business Administration

Management

Bachelor of Business Administration

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

The chief goal of the Management program is to give students an understanding of the nature and capabilities of human and physical resources. An appreciation of management principles and practices is essential for students who intend to enter careers as administrators, executives, production managers, management consultants or entrepreneurs. Optional programs are available in personnel/industrial relations or production management. Each requires 123 semester credit hours.

Students pursuing a Bachelor of Business Administration in Management receive a broadly based general business education before specializing in an area of professional concentration. Broad preparation assists graduates in preparing to meet the diverse challenges of personal as well as professional life.

Lower-level requirements have been outlined in the introductory section to the Division of Business Administration.

Upper-level requirements consist essentially of the following:

Sample Degree Plan

Sample Degree Plan-Management*

Junior Year

First Semester		Second Semester	
ACCT 300	3	FIN 320	3
DSCI 301[1]	3	MNGT 340[2]	3
MNGT 310	3	MNGT 312	3
MRKT 300	3	ECON 300-400	3
Business Elective	3	Business Elective	3
		MRKT 314	3
	15		18

Senior Year

First Semester		Second Semester	
MNGT 370	3	MNGT 366	3
MNGT 322	3	Business Elective	3
MNGT 300-400	9	Free Elective	9
	15		15

Management
Bachelor of Business Administration

[1]DSCI 301 must be completed by the end of the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed by the end of the second semester at U. T. Permian Basin or before.

*Degree plans emphasizing general business, decision science, personnel/-industrial relations, or production management vary depending upon a student's interests and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisor and/or Division Director.

Sample Degree Plan with Emphasis in Personnel/Industrial Relations

Sample Degree Plan

Junior Year

First Semester		**Second Semester**	
ACCT 300	3	MNGT 340[2]	3
DSCI 301[1]	3	MRKT 314	3
MNGT 310	3	FIN 320	3
MRKT 300	3	ECON 300/400 Elective	3
MNGT 312	3	MNGT 311	3
	15		18

Senior Year

First Semester		**Second Semester**	
MNGT 320	3	MNGT 322	3
MNGT 325	3	MNGT 324	3
MNGT 370	3	MNGT 361	3
Business Elective	3	Business Elective	3
Business Elective	3	MNGT 366	3
	15		15

[1]DSCI 301 must be completed by the end of the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed by the end of second semester at U. T. Permian Basin or before.

Management
Bachelor of Business Administration

Sample Degree Plan

Sample Degree Plan with Emphasis in Production Management

Junior Year

First Semester		Second Semester	
ACCT 300	3	MNGT 340[2]	3
DSCI 301[1]	3	MRKT 314	3
MNGT 310	3	FIN 320	3
MRKT 300	3	MNGT 411	3
ECON 300/400	3	Free Elective	6
	15		18

Senior Year

First Semester		Second Semester	
MNGT 300-400	6	MNGT 300-400	3
MNGT 361	3	Business Electives	9
MNGT 322	3	MNGT 366	3
Free Elective	3		
	15		15

[1]DSCI 301 must be completed by the end of the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed by the end of the second semester at U. T. Permian Basin or before.

Course Listing

MNGT 310 Management Concepts and Organizational Theory (3)
Fundamental concept of management including principles of administration, modern organization theory, goal-setting, leadership and decision-making.

MNGT 311 Business Communications (3)
Communication workshop designed to improve student abilities to communicate. Emphasis on writing memos, letters, reports and resumes with force, clarity and conciseness. Effective public speaking stressed.

MNGT 312 Personnel Functions (3)
Principles and practice in personnel relations including topics such as recruiting, training, wage and salary administration, and manpower planning.

MNGT 315 Business and Society (3)
Explores the role of business in contemporary society with respect to economic, social, political and technological problems. Case evaluation and discussion designed to develop policies for socially responsible management.

Management
Bachelor of Business Administration

Course Listing

MNGT 320 Industrial Relations and Collective Bargaining (3)
Interpretations of collective bargaining agreements, their negotiation and administration, and methods for settling disputes. Same as ECON 320.

MNGT 322 Labor-Management Relations (3)
Current employment relationships. Compares union-management objectives, functions and structures. Labor history, collective bargaining, industrial conflict and wage problem.

MNGT 324 Labor Legislation (3)
Legislation in labor and manpower management. Topics from Taft-Hartley Act, anti-injunction statutes, fair employment practices and government contract law.

MNGT 340 Operations Management (3)
Mathematical models in manufacturing management. Linear models, financial-decision models, production-planning models, inventory control, and production smoothing. Prerequisite: DSCI 301.

MNGT 341 Intermediate Operations Research (3)
Linear and dynamic programming and introduction to stochastic processes in operations management. Prerequisite: MNGT 340.

MNGT 361 Introduction to Research (3)
Multidisciplinary introduction to research process. Both library and field research. Emphasis on data gathering, data analysis and interpreting research conclusions. Prerequisite: basic course in student's area of specialization and DSCI 301 or equivalent.

MNGT 366 Management Strategy/Policy (3)
Strategy/policy development and implementation in organizations. Integrates and applies knowledge gained from multiple disciplines. Case evaluation and discussion are stressed. Prerequisite: completion of basic management core or by permission of instructor.

MNGT 370 Public Policies Toward Business (3)
The effects of government action on business decision-making and private enterprise. Anti-trust legislation, the impact on business of the regulatory agencies and public enterprise.

MNGT 411 Physical Resource Management (3)
World resources in terms of how they are created and managed for business, social achievement and cultural process. Same as ECON 411.

Management
Bachelor of Business Administration

Course Listing

MNGT 457 Association Management (3)
Associations in societal and community development emphasizing management planning, directing and managing volunteer labor found in associations and related activities.

MNGT 460 Problems in Small-Business Management (3)
Fundamental concepts, theories and practices of small-business management. Supervised projects with local firms are conducted. Prerequisite: permission of instructor.

Marketing
Bachelor of Business Administration

Bachelor of Business Administration

Administered by the Division of Business Administration. Please refer to that section for general degree requirements.

The Bachelor of Business Administration in Marketing is designed to provide a fundamental knowledge of the nature, structure, institutions and functions of marketing including physical distribution. The program is intended to prepare students for entry into marketing management careers in either profit or nonprofit organizations. The program requires a minimum of 123 semester hours and includes:

Marketing

Sample Degree Plan

Junior Year

First Semester		Second Semester	
MRKT 300	3	MRKT 312	3
ACCT 300	3	MNGT 340[2]	3
ECON 300/400		FIN 320	3
Elective	3	MNGT 310	3
DSCI 301[1]	3	MRKT 315	3
Business Elective	3	Free Elective	3
	15		18

Senior Year

First Semester		Second Semester	
MRKT 314	3	MNGT 366	3
MRKT 414	3	MRKT Electives	9
MRKT 407 or 408	3	Business Elective	3
Business Elective	3		
Free Elective	3		
	15		15

[1]DSCI 301 must be completed during the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed during the second semester at U. T. Permian Basin or before.

Sample Degree Plan with Emphasis in Oil & Gas Marketing Management

Sample Degree Plan

Junior Year

First Semester		Second Semester	
ACCT 300	3	MNGT 340[2]	3
DSCI 301[1]	3	MRKT 314	3
MNGT 310	3	FIN 320	3
MRKT 300	3	ACCT 302	3
ACCT 301	3	MNGT 411	3
	15		15

Marketing
Bachelor of Business Administration

Senior Year

First Semester		Second Semester	
MRKT 414	3	MRKT 422	3
MRKT 419	3	MNGT 366	3
MRKT 421	3	BLAW 332	3
MRKT 312	3	MRKT 407	3
ECON 300/400	3	MRKT Elective	3
ECON Elective	3		
	18		15

[1]DSCI 301 must be completed during the first semester at U. T. Permian Basin or before.

[2]MNGT 340 must be completed during the second semester at U. T. Permian Basin or before.

Course Listing

MRKT 300 Principles of Marketing (3)
Survey of marketing fundamentals with focus upon product, price, promotion and distribution within the context of business decision-making. Prerequisite: 3 semester hours credit in both microeconomics and macroeconomics.

MRKT 312 Marketing Management (3)
Emphasis upon strategic furthering, and marketing strategy and tactics within the context of case studies of corporate successes and failures. Prerequisite: MRKT 300.

MRKT 314 Physical Distribution Management (3)
Analysis development and management of integrated physical distribution systems. Transportation, warehousing, inventory control, material-handling and industrial location. Same as ECON 314.

MRKT 315 Consumer Behavior (3)
Concepts of consumer behavior. Emphasis on psychological, sociological and economic variables and their effects on purchasing behavior. Prerequisite: MRKT 300.

MRKT 316 Marketing Channel Systems (3)
Appraisal and diagnosis, organization and planning, action, and control of commodity and product-service distribution systems, marketing analysis and demand stimulation. Prerequisite: MRKT 300.

Marketing
Bachelor of Business Administration

Course Listing

MRKT 407 Sales Management (3)
Planning, organizing, directing and controlling the sales function as it relates to the marketing mix; also stress is placed upon professional selling techniques. Prerequisite: MRKT 300.

MRKT 408 Advertising Management (3)
Planning, organizing, directing and controlling the advertising function as it relates to the marketing mix. The elements of good advertising are also stressed. Prerequisite: MRKT 300.

MRKT 414 Marketing Research and Information Systems (3)
Behavioral sciences, research methods, social process and structure influences upon marketing activities and their integration as a total system of marketing action. Prerequisites: MRKT 300 and DSCI 301 or equivalent.

MRKT 419 Industrial Marketing (3)
Structure of industrial manufacturing and service firms, their motives and purchasing behavior, and logistical analysis of industrial markets. Prerequisite: MRKT 300.

MRKT 420 International Marketing (3)
Enterprise, comparative marketing, transport institutions and systems in selected foreign countries and the United States. Emphasizes ethnic and cultural differences in marketing strategy. Prerequisite: MRKT 300.

MRKT 421 Oil and Gas Marketing (3)
Analysis of the physical and organizational structure of oil and gas distribution within both domestic and international channels with emphasis upon both independents and majors. Prerequisite: MRKT 300.

MRKT 422 Energy Marketing Seminar (3)
Application of quantitative and behavioral models to demand/supply relationships evolving around the spectrum of energy consumption and the channels of distribution for oil and gas. Prerequisites: MRKT 300, 414, 421.

MRKT 429 Marketing Policy (3)
Capstone course with emphasis upon the application of quantitative and behavioral concepts to case studies in marketing. Prerequisite: 12 hours of marketing.

MRKT 439 Marketing Seminar (3)
Emphasis upon marketing theory within the context of evolving social policies and practices, with particular attention to career paths. Prerequisite: 12 hours of marketing.

Mass Communication
Bachelor of Arts

Mass Communication
(journalism & radio-television)

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for specific degree requirements.

The Bachelor of Arts degree in Mass Communication is designed to acquaint students with the wide range of career opportunities in mass communications, to provide basic understanding of concepts and principles common to all aspects of mass communication and finally to provide specialized preparation in at least one field. This preparation is oriented primarily towards preparing the individual to work in either electronic (radio/TV) or print journalism.

Prior to enrolling at the university, students should have had some introductory coursework in journalism, radio/television or mass communication. Prior experience in one of these fields is useful, however, such experience is not a prerequisite to study.

The BA degree program in Mass Communication prepares students for careers in newspaper and magazine writing and editing; radio and television reporting; production and management; public relations; advertising and specialized communication professions.

A BA in Mass Communication requires 30 credits in the major field, 18 credits of which must be upper level, plus a minor in a supporting field of at least 18 credits of which 12 must be upper level. Majors in Mass Communication are encouraged to minor in subject fields that will better qualify them to work in the mass communication industry. Minors in government, management and history are among the more commonly chosen fields, while students planning to become specialized writers may choose to minor in technical or scientific fields.

Students wishing to prepare for teaching in the public schools should complete requirements described in the section under education and are encouraged to take MCOM 429, and EDUC 460. Students desiring to prepare for careers in advertising should include a substantial percentage of their preparation in business administration.

Mass Communication
Bachelor of Arts

Sample Degree Plan-Mass Communication *

Sample Degree Plan

Junior Year

First Semester		**Second Semester**	
MCOM 303	3	MCOM 307	3
MCOM 305	3	MCOM 318	3
MCOM 313	3	MCOM 326	3
Course in Minor	3	Course in Minor	3
Elective	3	Elective	3
	15		15

Senior Year

First Semester		**Second Semester**	
MCOM 315	3	MCOM 429	3
MCOM 405	3	MCOM 392	3
MCOM 471	3	Courses in Minor	6
Courses in Minor	6	Elective	3
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

MCOM 303 Reporting (3)
History of the press, libel, journalistic ethics, copy editing, writing news and feature stories. Required of all MCOM majors.

MCOM 305 Communication Law (3)
Legal aspects of rights and responsibilities of press, radio and television, libel, privilege, copyright and access to information. Court reporting.

MCOM 307 Mass Communications Laboratory (1-3)
Print journalism laboratory includes experience in editing, reporting, photojournalism, writing headlines and making up pages.

MCOM 313 Advanced Reporting (3)
All phases of journalistic writing including governmental agencies, schools, courthouses, public affairs, sports, fine arts, interviews with prominent personalities and speeches.

MCOM 315 Public Affairs Reporting (3)
Writing news concerning agencies that deal with local, state and federal government.

Mass Communication
Bachelor of Arts

Course Listing

MCOM 318 Editing and Makeup (3)
Copyreading and headline writing; principles of typography and makeup, with laboratory practice.

MCOM 326 Photography (3)
Shooting, processing and printing technically good photographs of interest and visual value suitable for publications. Same as ART 326.

MCOM 341 Radio/Television Announcing (3)
Writing, editing and announcing press association and local news copy for radio and television news broadcasts. Laboratory practice in preparing news programs.

MCOM 342 Radio/Television Production (3)
Radio and television programming patterns, regulations pertaining to broadcasting and broadcasters' responsibilities.

MCOM 344 Television Production II (3)
Planning, staging and presenting television programs.

MCOM 345 Television Direction (3)
Directing television programs.

MCOM 405 Magazine Article Writing (3)
Writing a magazine article and attempting to sell it to one of the available markets.

MCOM 410 Advanced Broadcasting Techniques (3)
Broadcast production including documentaries in sound and short broadcast reports. Taping, editing, mixing, writing broadcast scripts, special effects and interviewing.

MCOM 429 School Publications (3)
Preparing a school journalism sequence. Producing school newspapers and yearbooks.

MCOM 451 Advanced Photography II (3)
Advanced photographic techniques including visual communication with a still camera and two dimensional black and white space articulation. Prerequisite MCOM 326 or equivalent. Same as ART 451.

MCOM 471 Mass Media and Society (3)
Principles of behavior modification applied to the media-radio, television, newspaper, magazines, books, etc.

Mathematics
Bachelor of Science

Bachelor of Science

Administered by the Division of Science and Engineering. Please refer to that section for general degree requirements.

A Bachelor of Science degree with a major in Mathematics requires a minimum of 120 semester credits. The major requires a minimum of 24 semester credits of Mathematics, exclusive of basic calculus and pre-calculus courses, all of these must be at the upper-level.

Variations in the plan of study will be made in keeping with an individual's interests and can be oriented to prepare students for careers in public school teaching, industrial and government research or for graduate study in mathematics or a related field.

All major programs include courses in linear and abstract algebra, probability and statistics, and analysis (MATH 301 or 401, 310, 315 and 360). Subject to advisor's approval, Mathematics electives are selected according to the student's educational objectives and may include up to 6 semester credits in related fields such as computer science, operations research, etc. A minor consisting of 18 semester credits, of which 12 must be upper level, is required. The choice of a minor also should be made to complement the student's interests and career goals.

Mathematics majors must complete the following general education requirements:

Laboratory science (engineering physics recommended)	8 hours
English	6 hours
Literature	6 hours
Government	6 hours
U.S. History	6 hours

Courses in accounting, economics and modern languages are recommended. Students should check with the department in which the minor is planned to determine lower level preparatory work.

Students seeking teacher certification must take MATH 350 (Topics in Geometry) as a part of the 24 semester credit major. If mathematics is the second teaching field, it is considered as a minor of 24 semester credits. The degree plan would include differential and integral calculus, linear and abstract algebra, advanced geometry, probability and statistics. This program provides students with the mathematical background necessary to teach algebra and geometry effectively in middle and secondary school.

Mathematics
Bachelor of Science

Sample Degree Plan

Sample Degree Plan-Mathematics*

Junior Year

First Semester		**Second Semester**	
MATH 310	3	MATH 301 or 401	3
MATH 360	3	MATH 315	3
Courses in Minor	6	Course in Minor	3
Elective	3	Electives	6
	15		15

Senior Year

First Semester		**Second Semester**	
MATH electives	6	MATH electives	6
Courses in Minor	6	Course in Minor	3
Elective	3	Electives	6
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

MATH 300 Mathematics for Elementary Teachers (3)
Basic set theory, axiomatic structure of the number system, foundation of arithmetic and informal geometry.

MATH 301 Statistics (3)
Basic concepts and applications of statistics, including probability, standard statistical distributions, descriptive statistics, testing of hypothesis, confidence intervals, linear regression and correlation.

MATH 304 Finite Math for Computers (3)
Sets and elementary logic, introduction to probability, vectors, matrices, linear programming and graphs as they apply to computers.
Prerequisite: college algebra. Same as CPSC 304.

MATH 310 Linear Algebra (3)
Vectors, vector spaces, matrices; linear transformations, eigenvalues, eigenvectors, canonical forms and their applications.

MATH 315 Algebraic Structures (3)
Sets, groups, rings and fields, with applications to the ring of integers and polynomial rings. Applications to computer science.

Mathematics
Bachelor of Science

Course Listing

MATH 320 Calculus of Several Variables (3)
Differential and integral calculus of functions of several variables. Prerequisites: integral and differential calculus of a single variable.

MATH 330 Differential Equations (3)
Ordinary differential equations including power series, Laplace transform methods and systems of linear differential equations with applications. Prerequisite: multivariable calculus.

MATH 331 Applied Mathematics (4)
Ordinary and partial differential equations, including special functions, transform methods and Fourier series. Prerequisite: MATH 330.

MATH 350 Topics in Geometry (3)
Cross ratio, elementary transformations, Euclidean constructions, introduction to non-Euclidean geometrics, and other topics in modern geometry.

MATH 360 Intermediate Analysis (3)
Limits, continuity, uniform continuity, derivatives, integrals and mean value theorems.

MATH 401 Probability and Statistics (3)
Fundamentals of probability theory and properties of distribution functions encountered in modeling and hypotheses testing. Prerequisites: calculus and MATH 301.

MATH 405 Discrete Mathematical Models (3)
Discrete deterministic and stochastic models for social science and management application. May include decision models and finite games. Prerequisite: linear algebra and statistics.

MATH 406 Continuous Mathematical Models (3)
Mathematical models in the biological and management sciences that employ continuum principles. May include optimization, epidemics, growth, etc. Prerequisites: linear algebra, statistics and calculus.

MATH 420 Numerical Analysis (3)
Initial value problems, transcendental equations and systems of linear equations. Interpolation, averaging and quadrature processes. Error analysis stressed. Prerequisites: MATH 310, 330 and knowledge of a programming language. Same as CPSC 420.

Mathematics
Bachelor of Science

Course Listing

MATH 435 Vector and Tensor Analysis (3)
Vector and tensor analysis, subdivided into 1) the vector calculus, 2) integral transformations of Green, Causs and Stokes and 3) tensor calculus. Prerequisites: MATH 310, 320; MATH 330 recommended.

MATH 440 Nonparametric Statistics (3)
Statistical procedures that are not dependent on a knowledge of the underlying distributions. Prerequisite: MATH 301 or equivalent.

MATH 445 Multivariate Statistics (3)
Operationally oriented study of multivariate regression, analysis of variance and covariance and related topics. Prerequisite: MATH 301 or equivalent.

MATH 460 Theory of Automata (3)
Mathematical theory of automata. Survey of finite automata, regular expressions, recursive functions, abstract machines, turing machines and computational complexity. Prerequisites: CPSC 304, 310 or permission of instructor. Same as CPSC 460.

Music
Bachelor of Arts

Bachelor of Arts

Administered by the Division of Humanities & Fine Arts. Please refer to that section for general degree requirements.

The Faculty of Music offers a wide range of courses oriented toward the major and non-major.

Non-majors are welcome in applied instruction, the beginning and intermediate theory classes, and any elective courses listed. Participation in the University Singers and the Permian Consort is also encouraged, although auditions for these two groups are required.

Students wishing to major in Music have the option of pursuing a liberal arts degree with or without teacher certification. Basic requirements for both degrees are the same, with additional music and education courses required for certification. Entering music students should have completed two semesters of music theory, at least one semester of music literature/-appreciation, and applied instruction on their major instrument(s).

Music majors must complete at least 36 credits in music of which 24 must be at the upper level. Besides general requirements for graduation, the Music major must also fulfill these minimum requirements:

1. 6 credits in applied music instruction
2. 2 credits in ensemble performance
3. 10 credits in music history and conducting
4. 6 credits in either choral or instrumental courses

Music students desiring teacher certification have three paths from which tc choose - elementary, secondary or all-level certification. Individual requirements vary; however, a typical program might include the addition of these courses to those listed above:

1. MUS 360 Music in the Elementary school
2. MUS 462, 464 Choral or Instrumental Music in the Secondary schools
3. MUS 466, 468 Piano or Vocal Pedagogy
4. MUS 324 Orchestration

Majors are further urged to take a practicum in their senior year as preparation for a recital, research project or composition.

Music
Bachelor of Arts

Music

A student may minor in Music by completing 18 credits (including 12 at the upper level) of approved courses, of which no more than 6 credits can be in applied instruction. The range of courses offers maximum flexibility in designing a minor that fits the student's needs.

Sample Degree Plan

Sample Degree Plan with All-Level Certification

Junior Year

First Semester		**Second Semester**	
MUS 301	2	MUS 301	2
MUS 321	3	MUS 343	3
MUS 323	2	MUS 421	2
MUS 342	3	Ensemble	1
Ensemble	1	EDUC 332	3
EDUC 344	3	EDUC 390	3
Elective	3	Elective	3
	17		17

Senior Year

First Semester		**Second Semester**	
MUS 324 or 325	2/3	MUS 401	2
MUS 360	3	EDUC 377	3
MUS 401	2	EDUC 378	3
MUS 462 or 464	3	Electives	6
EDUC 321	3		
Elective	3		
	16/17		14

Course Listing

MUS 301 Applied Music I (2)
Applied instruction in voice, piano, organ, harpsichord, guitar, strings, winds, brass and percussion. Private lessons on major instrument. Open to majors and non-majors. Fee required.

MUS 303 Ensemble: University Singers (1)
Vocal repertoire with emphasis on serious literature for the chamber choir. Annual madrigal dinners and tours highlight the group's activities. Open to majors and non-majors by audition.

MUS 305 Ensemble: Permian Consort (1)
Instrumental repertoire of the Renaissance, Baroque and Classical periods. Emphasis on period instrumentation and historical performance practices. Open to majors and non-majors by audition.

Music
Bachelor of Arts

Course Listing

MUS 321 Comprehensive Musicianship (3)
Bibliography and musical tools for the music major. Class encompasses notational and bibliographic skills along with basic computer exposure. Required for entering music students.

MUS 322 Fundamentals of Music Theory (3)
Mechanics of music notation, harmony, melody and rhythmic structure. Emphasis on the relation of music to the elementary classroom. Fulfills music requirements for elementary degree certification. Open to non-majors only.

MUS 323 Conducting (2)
Beginning course in conducting including baton technique, score reading, cues and metric patterns. Open to majors and non-majors.

MUS 324 Orchestration (3)
Beginning instruction in instrumental types including range, timbre and blend. Emphasis on scoring for traditional groupings such as string orchestra, brass quintet and others. Open to majors and non-majors with permission of instructor.

MUS 325 Choral Arranging (2)
Techniques of composing, editing and arranging choral music for a variety of ensembles. Special emphasis on public school problems in performance. Open to majors and non-majors with permission of instructor.

MUS 326 Vocal Diction (2)
Study of diction and grammar problems associated with English, Italian, French, and German texts (languages offered on rotating basis). Open to majors and non-majors with permission of instructor. May be repeated with permission of instructor.

MUS 327 Intermediate Theory (3)
Intermediate-level theory course covering diatonic and chromatic harmony, includes some analysis. Oriented toward the major with theory deficiencies or the non-major who has completed MUS 322 and wishes further instruction.

MUS 328 Advanced Ear Training (1)
Computer study and private lessons to develop competency in aural skills and dictation. Open to majors and non-majors.

MUS 340 Music Appreciation (3)
A single semester course introducing the non-major to listening techniques for musical styles ranging from popular to classical. Fulfills music requirements for elementary education certification. Open to majors and non-majors.

Music
Bachelor of Arts

Course Listing

MUS 342 History of Music I (3)
A topics oriented course surveying major historical changes in western music from the ancient Greeks to the death of Bach. Prerequisite: MUS 340 or equivalent. Required for majors.

MUS 343 History of Music II (3)
A topics oriented course surveying major historical changes in western music from the classical period to the present. Prerequisite: MUS 340 or equivalent. Required for majors.

MUS 360 Music in Elementary School (3)
Methods and materials of teaching singing, rhythmic concepts, listening, percussion and melody instruments to children. Practicum in elementary music teaching. Majors only.

MUS 401 Applied Music II (2)
Applied instruction in voice, piano, organ, harpsichord, guitar, strings, winds, brass, and percussion. Private lessons on major instrument. Open to majors and non-majors. Fee required.

MUS 403 Ensemble: University Singers (1)
Vocal repertoire with emphasis on serious literature for the chamber choir. Annual madrigal dinners with tours highlight the groups' activities. Open to majors and non-majors by audition.

MUS 405 Ensemble: Permian Consort (1)
Instrumental repertoire of the Renaissance, Baroque and Classical periods. Emphasis on period instrumentation and historical performance practices. Open to majors and non-majors by audition.

MUS 421 Computer Application in Music (3)
Beginning instruction in compositional and theoretical usages of computer software. Hands on experience with computer. Knowledge of BASIC useful though not required. Open to majors and non-majors with consent of instructor.

MUS 423 Advanced Conducting (2)
Advanced study in the solution of conducting problems and score reading. Rehearsal techniques and organizational skills necessary for developing a successful instrumental or choral program are stressed.
Prerequisite: MUS 323 or consent of instructor.

Music
Bachelor of Arts

Course Listing

MUS 424 Advanced Orchestration (3)
Advanced exercise in scoring for orchestral textures and full ensembles. Prerequisite: MUS 324 or consent of instructor.

MUS 440 Performance Practice (3)
Performing techniques used prior to 1800. A combined lecture/lab course. Some performance skills required. Open to majors and non-majors with consent of instructor.

MUS 441 History of Musical Instruments (3)
Survey of change in instruments design and construction from Biblical times to the present. A combined lecture/lab course. A musical instrument will be constructed during the course of the class. Open to majors and non-majors.

MUS 442 Musical Theatre (3)
Historical development of the Broadway musical along with introduction to the techniques involved in selecting, casting and producing a musical. Open to majors and non-majors.

MUS 443 Choral Literature (3)
An advanced survey of choral literature focusing on repertoire suitable for church and public school music.

MUS 444 Keyboard Literature (3)
Surveys major skills and trends in keyboard repertoire from the 15th century to the present. Some keyboard skills required. Open to majors and non-majors with consent of instructor.

MUS 462 Choral Music in the Secondary School (3)
Techniques and materials for teaching choral music in grades 7 through 12. Emphasis on organization and administration of secondary music departments. Majors only.

MUS 464 Instrumental Music in the Secondary Schools (3)
Instrumental instruction, organization of the public school music department, rehearsal techniques and related problems. Majors only.

MUS 466 Piano Pedagogy (3)
Techniques of piano instruction ranging from masters of the past to the most current trends. Some keyboard skills required. Open to majors and non-majors with consent of instructor.

MUS 468 Vocal Pedagogy (3)
Techniques and strategies involved in successful studio voice instruction. Activities include repertoire survey and laboratory situations. Majors only. Required for majors in voice.

Physical Education
Bachelor of Arts

Physical Education **Bachelor of Arts**

Administered by the Division of Behavioral Science and Physical Education. Please see that section for general degree requirements.

The basic Physical Education program emphasizes the study of human movement including those factors which affect and are affected by movement. Studies focus on the physiological, kinesiological, psychological, sociological and performance factors. To graduate from U. T. Permian Basin with a Bachelor of Arts degree in Physical Education, a student must demonstrate knowledge of the following:

1. Physiological factors (PHED 350)
2. Kinesiological factors (PHED 340)
3. Psychological and sociological factors (PHED 420, 430 or 440)
4. Performance factors (PHED 309 - see "Skill Competency Handbook")

In addition, all physical education majors must demonstrate the ability to measure human performance (PHED 400). Physical Education majors must also complete an independent study project to be followed during a subsequent semester by a work experience (PHED 491 and PHED 492). Successful completion of 6 semester credit hours of student teaching may be substituted for PHED 491 and PHED 492 with approval of the Physical Education advisor. These competencies/courses form the core of the Physical Education major. Individuals choosing to minor in Physical Education are required to take PHED 309, 340, 350, 400 and PHED 420, 430 or 440.

Beyond the basic degree requirements, students are encouraged to design, with the aid of a faculty advisor, a degree program to satisfy their personal career objectives. A major in Physical Education is appropriate for students interested in elementary and/or secondary school teaching and coaching, physical therapy, corrective therapy, athletic training, youth leadership, administration of adult fitness programs, graduate study, and the study of medicine and allied health professions.

The major in Physical Education requires a minimum of 36 nonactivity semester credit hours, at least 18 of which must be at the upper level. The minor in Physical Education requires a minimum of 18 nonactivity semester credit hours, at least 12 of which must be at the upper level. Physical

Physical Education
Bachelor of Arts

Physical Education

Education majors must have an 18 hour minor. However, for a student majoring in physical education and seeking secondary or all-level physical teacher certification, the minor field of study must include 24 semester credit hours at least 12 of which must be at the upper level. In either case, the minor selected should complement degree and career objectives. Due to changes in the Texas teacher certification requirements effective in fall 1978, only physical education courses may be applied to teacher certification in Physical Education.

It is recommended, but not required, that students complete the following courses or their equivalent before entering U. T. Permian Basin:

1. Foundations of Physical Education (applicable toward major)
2. First Aid (applicable toward major)
3. Physical Activity Courses (as many as possible)
4. Anatomy and Physiology
5. Courses in Minor or Second Teaching Field

Upon acceptance into the program, students should decide whether they wish to be certified to teach physical education, and if so, whether they wish all-level (K-12) physical education, secondary (7-12) physical education, or elementary classroom certification. Degree programs appropriate for each of these options differ significantly, especially in terms of required courses.

Students majoring in Physical Education and also seeking teacher certification are required to demonstrate competencies in the skills and strategies of teaching movement activities to normal and handicapped students (PHED 330, 410 and 480). Two additional courses are required for those seeking all-level physical education or elementary classroom certification: Motor Development (PHED 310) and Physical Education in the Elementary Schools (PHED 320). Athletic Training (PHED 370) is required for all-level and secondary physical education certification. If 6 semester hours of student teaching is successfully completed, the independent study and practicum experience may be waived by the faculty advisor. See "Teacher Certification Program."

Physical Education
Bachelor of Arts

Physical Education

Students majoring in Physical Education, but not seeking teacher certification, should design a degree plan which best prepares them for career options outside of public school teaching. This implies gaining a degree of specialization and additional expertise in at least one specific application area. To facilitate this, students must complete Independent Study in Physical Education (PHED 491) and Practicum (PHED 492). With the aid of a faculty member, students will design an independent study project to be followed during a subsequent semester by a work experience. These credits may be applied to the 36 nonactivity semester credits minimally required for a Physical Education major.

Required Courses Teacher Certification & Non-Certification Programs

	Teacher Certification			Non-Certification
Courses	All-Level PHED	Secondary PHED	Elementary Classroom	Majors PHED
PHED 309	Variable	Variable	Variable	Variable
PHED 350	3	3	3	3
PHED 340	3	3	3	3
PHED 420, 430 or 440	3	3	3	3
PHED 400	3	3	3	3
PHED 410	3	3	3	
PHED 480	3	3	3	
PHED 330	3	3	3	
PHED 310	3		3	
PHED 320	3		3	
PHED 370	3	3		
PHED 491	(waived if student teaching completed)			3
PHED 492	(waived if student teaching completed)			3
PHED-Elective Credit Hours*	6	12	9	18
Total	36 credits	36 credits	36 credits	36 credits

*The selection of appropriate elective credits will vary depending upon the student goals and preparation prior to enrolling at U. T. Permian Basin. Students will consult with a faculty advisor for specific degree planning.

Physical Education
Bachelor of Arts

Course Listing

PHED 309 Skill Competency in Physical Education (1-3)
Performance competency in selected combinations of sports as set forth in the Skill Competency Handbook (see PHED advisor).

PHED 310 Motor Development (3)
Patterns of motor growth and development of infant, early childhood and later childhood ages.

PHED 311 Exercise, Nutrition and Weight Control (3)
Introduction to the basic factors which affect and control the development of total physical fitness, including diet, nutrition and weight control. Students will learn to evaluate and write their own lifetime cardiovascular fitness, strength, flexibility, diet, nutrition and weight control programs.

PHED 320 Physical Education in Elementary Schools (3)
An introduction to the content and principles of organizing, conducting and evaluating physical education experiences for the early childhood and elementary school program.

PHED 330 Physical Activity for Handicapping Conditions (3)
Physical performance factors of medical and educational handicapping conditions influencing modification and selection of activities for individuals restricted from regular physical education classes.
Prerequisite: PHED 310 or equivalent.

PHED 340 Kinesiology (3)
Integration of skeletal and neuromuscular anatomy and physiology with mechanical principles of human movement to structurally and prescriptively analyze movement patterns for performance improvement.
Prerequisite: LFSC 350 or equivalent.

PHED 350 Physiology of Exercise (3)
Physiological functioning of the human body during physical stress to include muscle strength, cardiorespiratory endurance, environmental effects and conditioning programs. Laboratory equipment used to collect data.
Prerequisite: LFSC 350 or equivalent.

PHED 359 Lifetime Sports (1)
Skill and knowledge of a lifetime sport. Sections including bowling, golf, tennis, skeet and trap shooting, swimming, handball, racquetball and others.

Physical Education
Bachelor of Arts

Course Listing

PHED 360 Coaching in Sports (3)
Coaching profession as a multidimensional role in education. Interpersonal relationships, societal implications, philosophy, coaching strategies, principles of training, organization, administration, etc.

PHED 370 Athletic Training (3)
Prevention and treatment of athletic injuries, including recognition, techniques of taping, therapeutic modalities, rehabilitation of injuries and athletic training room management. Prerequisite: LFSC 350 or equivalent.

PHED 400 Measurement of Physical Performance and Achievement (3)
Current trends in measurements and evaluation techniques relating to basic statistics for test interpretation, psychomotor and cognitive testing, and the grading of students.

PHED 410 Curricular Innovations in Physical Education (3)
Movement experiences for public school children, application of trends in physical education programs, and instructional techniques.

PHED 420 Psychology of Sport and Physical Activity (3)
Concepts in psychology as applied to an individual's involvement in sport and physical activity. Emphasis upon group dynamics, motivation and personality theory.

PHED 430 Motor Learning and Performance (3)
Variables influencing skill learning and motor performance, including physical, perceptual and cognitive processes, and their relevance to the development of effective instructional techniques.

PHED 440 Role of Sport in American Society (3)
An examination from the perspectives of history, philosophy and sociology of the basic issues involving sport in American life.

PHED 480 Design of Learning Environments for Movements (3)
Analysis and application of teaching activity that facilitates the learning of human movement skills. Prerequisite: PHED 410 or equivalent.

Political Science
Bachelor of Arts

Bachelor of Arts

Political Science

Administered by the Division of Behavioral Science and Physical Education. Please see that section for general degree requirements.

The Bachelor of Arts degree program in Political Science is oriented primarily toward the study of American Government and politics, and secondarily toward comparative government with supporting study in political theory.

A wide variety of career opportunities are open to students majoring in political science, including the United States Foreign Service, specialized work in foreign countries, the federal government, foundations, private organizations, city management and other types of public administration and public service, as well as others less directly related to government. Pre-law students find the study of political science appropriate preparation for law school. A major in Political Science is suitable for students planning to teach government or social studies.

In addition to lower division requirements of two courses in political science to meet graduation requirements, a major in Political Science **should** include at least one upper level course in comparative government, one in American government, and one in political theory.

Students seeking to satisfy the State of Texas statuatory requirement in American Government may take either PLSC 313 or 315. The state requirement in Texas government may be met by taking either PLSC 311 or 412. If the requirement in Texas government has been met at another college or university, PLSC 311 may not be elected for credit at U. T. Permian Basin.

Pre-Law

Students desiring to complete pre-law preparation and receive a bachelor's degree may do so through one of several options. The most common is the BA program in political science, however, degrees in several other fields also are appropriate. Those interested in entering law school after completion of the bachelor's degree should consult with the Academic Advising Center for referral to an appropriate advisor.

Political Science
Bachelor of Arts

Course Listing

PLSC 311 The States and Federalism (3)
The study of the constitution and functioning of state and local governments within the changing federal system. Includes the study of the Texas and United States constitutions.

PLSC 313 American Parties and Politics (3)
Behavior of political parties, politicians and voters in American politics focusing on the history of the American party system since the mid 19th century.

PLSC 315 The Legislative Process (3)
Analysis of the American constitution in terms of the organization and procedure of American legislative bodies; analysis of public and private influences upon public policy formation.

PLSC 321 Comparative Politics (3)
A comparative examination of the political systems of selected economically developed nations.

PLSC 323 The Political Heritage of Southeast Asia (3)
An examination of the historical development of political institutions, practices and attitudes in the nations of Southeast Asia. Attention will also be given to contemporary problems of economic and political development.

PLSC 412 Politics in the American States (3)
An examination of the states as subsystems of the political system of the United States. Topics include federalism socio-economic environments, state political cultures, pressure groups, state political parties and decision-making agencies.

PLSC 413 Political Behavior (3)
Contemporary theories of American political behavior. Topics include political socialization, public opinion, leadership recruitment and voting.

PLSC 423 Governments and Politics of Latin America (3)
Major institutions and political behaviors which have emerged in selected Latin American countries since Independence, particularly during the 20th century.

PLSC 427 International Politics (3)
An examination of the major variables affecting the political interaction of national states. Various theories approaches and modes of analysis will be considered.

Political Science
Bachelor of Arts

Course Listing

PLSC 431 American Political Thought (3)
Major trends in American political thought, related to the socio-economic and political development of the nation.

PLSC 436 Government and Business (3)
An exploration of the relationship between government and business in American Society. Course includes examination of the regulation and the promotion of business by government.

PLSC 443 American Foreign Policy (3)
Origin, conduct and application of American foreign policy in world affairs.

PLSC 447 Public Administration (3)
A survey of American public administration and the role of the bureaucracy in the formulation and implementation of public policy.

PLSC 451 Political Theory (3)
A topical examination of the enduring issues in western political thought. Consideration will be given to the nature of citizenship, the function of the state, the sources and structure of authority in society, the magnitude of states, and the external relations of states.

PLSC 459 Seminar in American Public Policy (3)
Examination of varying topics in public policy of contemporary interest and concern. May be repeated for credit when topics vary.

Psychology
Bachelor of Arts

Psychology

Bachelor of Arts

Administered by the Division of Behavioral Science and Physical Education. Please refer to that section for general degree requirements.

Psychology is the science of the behavior of living organisms, especially human beings. The study of psychology is an introduction to the empirical investigation of what we are, as well as an introduction to many of the investigators and thinkers who have developed systems of thought about behavior.

The program in Psychology leading to the Bachelor of Arts degree is designed to prepare the student who plans to be a practitioner of the sciences, as well as the student who plans to do research.

Psychology is an excellent major for the student whose career goals involve working with people in such fields as child care, counseling, personnel management, advertising, crime prevention, law, the medical and paramedical fields, recreation, social work, and urban planning. A minimum of 33 credit hours is required for a major in Psychology.

Psychology is an appropriate minor for many students majoring in other areas. Psychology readily complements many fields of study. A minimum of 18 credit hours is required for the minor.

Courses in Introductory Statistics (PSYC 301), Principles of Learning (PSYC 303), Experimental Psychology (PSYC 304), History and Systems of Psychology (PSYC 402), and Independent Research in Psychology (PSYC 493) are required of all students majoring in Psychology. The student who plans to pursue graduate-level studies in Psychology is encouraged to take advanced statistics (PSYC 401). Students should consult with their faculty advisors for specific planning.

Sample Degree Plan

Sample Degree Plan-Psychology*

Junior Year

First Semester		Second Semester	
PSYC 301	3	PSYC 402	3
PSYC 303	3	PSYC 304	3
PSYC 321	3	PSYC 322	3
Courses in Minor	6	Courses in Minor	6
	15		15

Psychology
Bachelor of Arts

Senior Year

First Semester		Second Semester	
PSYC 451	3	PSYC 404	3
PSYC 471	3	PSYC 493	3
Courses in Minor	3	Courses in Minor	3
Electives	6	Electives	6
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Course Listing

PSYC 301 Introductory Statistics (3)
Measures of central tendency, variability, correlation and hypothesis testing, with emphasis on the application of statistical methods to research in the behavioral sciences and education.

PSYC 303 Principles of Learning (3)
Major research results of classical and instrumental conditioning in animals and humans. Verbal learning, concept learning, problem solving and memory in humans will also be reviewed.

PSYC 304 Experimental Psychology (3)
Introduction to the planning and execution of psychological research. Prerequisite: PSYC 301.

PSYC 305 Applied Behavior Analysis (3)
An introduction to applications of the principles of learning to a variety of infant, child, adolescent and adult behavioral problems. Emphasis is on the specification of treatment operations and assessment of therapeutic change.

PSYC 311 Social Psychology (3)
Interrelationships between individuals and their social environment, considering social influences upon motivation, perception, behavior and development, and change of attitudes and opinion.

PSYC 321 Abnormal Psychology (3)
Variables involved in the development, maintenance and treatment of a variety of behavior disorders.

PSYC 322 Theories of Personality (3)
A survey of the theoretical views of Freud, Jung, Adler and various contemporary writers.

Psychology
Bachelor of Arts

Course Listing

PSYC 341 Child Psychology (3)
Developmental aspects of physical, mental, social and emotional growth from birth to adolescence. Same as EDUC 311.

PSYC 342 Adolescent Psychology (3)
Developmental aspects of physical, social, emotional and cognitive growth. Emphasis is on the adjustment and behavior patterns of adolescents.

PSYC 401 Advanced Statistics (3)
The application of advanced statistical methods to research in the behavioral sciences and education. Prerequisite: PSYC 301.

PSYC 402 History and Systems of Psychology (3)
Major factors affecting the development of psychology as science of behavior, with emphasis upon philosophical roots of major psychological concepts. Prerequisite: 9 credits in psychology.

PSYC 404 Physiological Psychology (3)
Neurophysiology and neuroanatomy. Variables that contribute to behavioral effects in the areas of sensation, perception, motivation and learning.

PSYC 405 Drugs and Behavior (3)
Pharmacologic basis of psychotropic drugs and their associated abuses. Theories of cause and treatment of abusers are reviewed.

PSYC 406 Biofeedback: Theory and Practice (3)
An introduction to the basic principles and techniques of clinical biofeedback. The specification of treatment operations for headaches, hypertension, muscular rehabilitation, and so on, will be discussed and demonstrated.

PSYC 407 Behavioral Medicine (3)
Examination of the role of behavioral science knowledge and techniques in understanding, assessing, treating and preventing medical-psychological problems.

PSYC 411 Language and Cognitive Processes (3)
Research and theories of language development and maintenance, including concept learning, problem solving, memory and attention.

PSYC 415 Theories of Learning (3)
Assumptions, constructs and research evidence of the various theories of learning.

Psychology
Bachelor of Arts

Course Listing

PSYC 433 Personnel Psychology (3)
Techniques and methods for selection, classification and personnel maintenance in commercial environments.

PSYC 435 Industrial Psychology (3)
Variables affecting employee performance in the industrial and commercial environments.

PSYC 441 The Exceptional Child (3)
Theories and research in fields of biology and psychology concerning exceptional children, emphasizing mentally retarded, emotionally disturbed and mentally gifted. Same as EDUC 451.

PSYC 442 Cognitive Development in Young Children (3)
Major theoretical constructs and research findings relevant to the cognitive development of young children. Includes analysis of determinants of differences in cognitive functioning. Same as EDUC 414.

PSYC 443 Social and Emotional Development in Children (3)
Major theories and research relevant to social and emotional development of children. Focuses on innate and environmental influences affecting development in families, schools and societies. Same as EDUC 415.

PSYC 444 Child Psychopathology (3)
Critical review of the variables involved in the development and maintenance of behavior disorders in children. Emphasis on depression, fears and phobias, autism and hyperactivity.

PSYC 451 Tests and Measurements (3)
Major personality and intelligence tests, emphasis upon their construction, administration, scoring and interpretation. Prerequisite: PSYC 301.

PSYC 460 Applied Behavior Analysis/Classroom (3)
Principles of behavior modification and the application of these principles to the school and home. Same as EDUC 460.

PSYC 471 Motivation (3)
Theories and experimental research concerning drives, needs and preferences as proposed by scientists studying personality, learning and physiology.

PSYC 493 Independent Research in Psychology (3)
Study of research under supervision of a member of the faculty. Students wishing to enroll should prepare a short plan for this coursework. Prerequisite: Senior standing and PSYC 304.

Sociology
Bachelor of Arts

Sociology

Bachelor of Arts

Administered by the Division of Behavioral Science and Physical Education. Please refer to that section for general degree requirements.

Sociology is the study of human society, emphasizing the existing variety of cultural forms and the social structure which influences social behavior. Having embarked on the ambitious task of discovering social laws or uniformities of human behavior, sociologists and students alike are consistently challenged by the apparent contradictions and the richness of human nature. They enhance their understanding of human society by employing and building social theories at several levels of analysis vis-a-vis institutions, organizations and small groups.

Students majoring in Sociology will acquire a high quality liberal arts education preparing them to enter various professions. At U. T. Permian Basin, practical applications of sociological knowledge are emphasized through a comprehension of fundamental causes and circumstances leading to social conflict and change. Issues of social inequality such as social class, wealth, race, ethnicity, sex and age are emphasized as important reference points for sociological inquiry.

Sociology offers the following career fields: secondary social science teaching, social work, public welfare with federal or state agencies, voluntary organizations, private and government foundations, social research, criminal justice, industrial relations and college teaching.

Requirements for a Bachelor of Arts degree are 30 semester credit hours of which 24 must be at the upper-division level (junior or senior level). Two courses are specifically required for the major: SOC 403 and SOC 427. Students have the option of applying 3 semester credits in anthropology toward the major in Sociology. However, duplication of an anthropology course in a student's sociology program by applying the same course to both major and minor requirements is not permitted.

Requirements for a minor in Sociology are 18 semester credit hours of which 12 credits must be at the upper level. Students may elect to apply an anthropology course to their minor in Sociology.

Sociology
Bachelor of Arts

Sample Degree Plan-General Academic Sociology*

First Semester		**Second Semester**	
SOC 311	3	SOC 403	3
SOC 350	3	SOC 375 or 415	3
Courses in Minor	9	Courses in Minor	6
		Elective	3
	15		15

First Semester		**Second Semester**	
SOC 432	3	SOC 431	3
SOC 427	3	SOC 444 or 480	3
Courses in Minor	6	Courses in Minor	6
Elective	3	Elective	3
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisor for specific planning.

Sample Degree Plan
General Academic
Junior Year

Senior Year

Students wishing to qualify academically for social worker certification by the State of Texas should consult with a faculty member in Sociology.

Social Worker
Certification: Texas

Course Listing

SOC 311 Human Behavior and the Social Environment (3)
How human behavior is shaped by internal, interpersonal, social and environmental contexts. Emphasis is on the effects of attitudes, communication, organization, communities and cultural factors.

SOC 350 Social Deviance (3)
Study of societal definitions and reactions to deviant acts in relationship to race, ethnicity, social class and legal institutions; relationship of deviant acts to group solidarity and ideological beliefs.

SOC 355 Juvenile Deliquency (3)
Theories of causation, distribution and frequency of deliquency in modern society. Methods of correctional treatment and preventive programs.

SOC 375 Social Stratification (3)
Differential structures of power and social class in industrial societies; income, prestige and political authority, social mobility and major historical changes in stratification systems.

Sociology
Bachelor of Arts

Course Listing

SOC 380 Social Work I-Introduction to Social Work (3)
History of social work and its knowledge base and values; professionalization of social work; social service clientele and issues confronting the profession.

SOC 382 Social Work II-Social Welfare as a Social Institution (3)
The welfare system and the function of public and private agencies; the social security act; influencing social policy and legislation; issues in social reform; gaps in social welfare.

SOC 390 Marriage and Family (3)
Examine historical, functional, institutional and crosscultural perspectives. Study dating, courtship, mate selection, communication, parenthood, in-laws, divorce and remarriage.

SOC 403 Social Research (3)
Problems in conducting sociological research; conceptualizing research, developing a research design, and collecting and analyzing data. Prerequisite: at least 2 courses in sociology.

SOC 405 Socialization: Ethnicity and Social Class (3)
The process by which the individual learns the social and cultural requirements to function in roles associated with race/ethnic group membership and social class position.

SOC 410 Sociology of Education (3)
A study of the role of educational institutions in society, as agents of socialization and as sources for social change. Relations with other social institutions and the community will be discussed.

SOC 415 Sociology of Organizations (3)
Contemporary empirical studies in organizations: prisons, governmental bodies, unions and hospitals. Prerequisite: SOC 311 strongly recommended.

SOC 427 Sociology Theory (3)
Classical and contemporary theorists: Marx, Weber, Durkheim, Pareto, Homans and Parsons among others. Substantive theories of social organization. Prerequisite: At least 2 courses in sociology.

SOC 431 Criminology (3)
Criminal behavior patterns, behavior of police and courts in handling criminal offenders. Social control in confinement and treatment of criminals.

Sociology
Bachelor of Arts

Course Listing

SOC 432 Theories of Criminal Behavior (3)
Principal theories of criminality and the application of these theories to research and correctional practice are examined.

SOC 444 Racial and Cultural Minorities (3)
Emergence of ethnic and racial minorities, comparative ethnic relations, racism and ethnocentrism, and future trends in relations between minorities and the dominant society.

SOC 450 Sociology of Mass Communications (3)
The relationship of advanced industrial technology and social institutions on the content and effects of mass media forms of communication, communication systems and public responses to mass communications.

SOC 460 Social Gerontology (3)
Social influences on aging individuals. Examination of theories of aging and the life cycle; age status, age-sex roles, health community participation, family relations, work, leisure, retirement, housing and finance.

SOC 461 Social Work with the Aged (3)
An examination of the social systems and methods for delivering services to the aging population. Skills necessary for intervention work.

SOC 465 Thanatology (3)
Central issues concerning death and dying. The role of institutions in socializing persons toward death. Changes in attitudes toward death over the life cycle. Examination of the dying process, funeral, bereavement, living will, euthanasia and views on life after death.

SOC 480 Urban Studies (3)
Social and ecological organization of cities. Emphasis on the American city; its settlement patterns, ethnic and racial groups and impact of urbanism on personality.

SOC 492 Practicum (3)
A supervised field experience in the practice of social work methods, knowledge and skills in a social service or related agency.

SOC 493 Independent Research in Sociology (3)
Study of research under supervision of a member of the faculty. Students wishing to enroll should prepare a short plan for this coursework.

Spanish
Bachelor of Arts

Spanish

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

Because it shares the Hispanic heritage of Texas and lies in close proximity to Latin American countries, U. T. Permian Basin offers the student of Spanish and the potential professional, unique learning and cultural experiences as well as scores of career possibilities and opportunities. Besides offering a living language and a cultural laboratory in which to study and work, the Spanish program provides several specific areas of concentration designed to meet the student's particular academic requirements and career objectives. Some of these areas are interdisciplinary in character, that is, they are tied into academic programs other than Spanish. Thus they afford the potential professional in literature, education, business or science, the flexibility to enroll in relevant courses of primary or secondary importance.

Program concentrations in Spanish include:

1. Spanish for elementary school teachers
2. Spanish for secondary school teachers
3. Spanish for majors in literature
4. Spanish as a minor concentration
5. Master of Arts in education with concentration in Spanish
6. Master of Arts in literature with concentration in Spanish

The first three courses of study lead to the Bachelor of Arts degree in Spanish. A proficiency test will be administered to each student entering the Spanish program to assess their specific academic needs.

A major in Spanish consists of a minimum of 30 credits divided as follows:

1. 6-12 credits of Spanish language or its equivalent at the freshman and sophomore levels.

2. 9 credits of required Spanish language courses at the upper-division level as follows: SPAN 301, 302, 431.

3. Minimum of 9 credits of upper-level courses, to be identified by an advisor in the Spanish program, according to specific concentration of student, that is, elementary bilingual education, secondary education with Spanish as the major subject area, or a major in Hispanic letters.

Spanish
Bachelor of Arts

Spanish

The minor in Spanish consists of 18 credits, 12 of which are required at the upper level. Students declaring Spanish as a second teaching field are urged to fulfill all requirements for the major in Spanish at the secondary level.

Sample Degree Plan-Spanish Major in Literature*

Sample Degree Plan

Junior Year

First Semester		Second Semester	
SPAN 301	3	SPAN 302	3
SPAN 431	3	SPAN 421	3
Courses in Minor	3	Courses in Minor	3
Elective	3	Elective	3
	12		12

Senior Year

First Semester		Second Semester	
SPAN 401	3	SPAN 402	3
SPAN 411	3	SPAN 412	3
Courses in Minor	6	Courses in Minor	6
Elective	3	Elective	3
	15		15

The majority of the courses offered are conducted in Spanish.

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisor for specific degree planning.

Course Listing

SPAN 301 Advanced Grammar and Syntax (3)
Analysis of more technical and advanced points of Spanish grammar and syntax with comparisons made to English. Prerequisites: Minimum requirements in Spanish language for entry in program and replacement test.

SPAN 302 Advanced Composition and Conversation (3)
Designed to improve oral and written Spanish. Presentation of topics related to the diverse cultures, peoples, history of Spain and Latin America, especially Mexico. Prerequisite: SPAN 301.

SPAN 321 Hispanic Civilization (3)
Currents and characteristics of Spanish culture as expressed through the centuries in literature, art, philosophy and history. Prerequisite: SPAN 302.

Spanish
Bachelor of Arts

Course Listing

SPAN 331 Spanish Conversation (3)
Study and practice of oral Spanish, stressing idomatic expressions and providing students with the opportunity to improve their fluency. Pronunciation, comprehension and building vocabulary are also emphasized.

SPAN 401 Spanish Literature I (3)
Spanish Peninsular literature from the early period to the 17th century. Prerequisite: SPAN 421 or instructor's approval.

SPAN 402 Spanish Literature II (3)
Spanish Peninsular literature from the 18th century to the present. Prerequisite: SPAN 421 or instructor's approval.

SPAN 411 Spanish-American Literature I (3)
Spanish-American literature from the Pre-hispanic period through Romanticism. Prerequisite: SPAN 421 or instructor's approval.

SPAN 412 Spanish-American Literature II (3)
Spanish-American literature from Modernism to the present. Prerequisite: SPAN 421 or instructor's approval.

SPAN 421 Literary Forms and Analysis (3)
Principal literary forms in Hispanic letters and methodology for critical literary analysis. Prerequisite: SPAN 302.

SPAN 422 Creative Literary Expression in Spanish (3)
Skills used in creative writing. Emphasis on developing style and techniques as related to one specific literary form to be announced each time course offered. Prerequisite: SPAN 302.

SPAN 431 Spanish Phonetics and Phonemics (3)
Spanish phonology with emphasis on oral drills; an introduction to elementary applied linguistics. Prerequisite: SPAN 301.

SPAN 437 Hispanic Literature and Culture through Travel (3)
Intensive classroom preparation followed by guided travel to countries and sites of cultural and literary importance.

SPAN 451 Mexican Literature (3)
Survey of Mexican literature from Pre-hispanic times to present with emphasis on contemporary literary themes, movements and genres. Prerequisites: SPAN 421 or instructor's approval.

Spanish
Bachelor of Arts

Course Listing

SPAN 452 Mexican-American Literature (3)
Mexican-American literature in Spanish and English focusing on native authors, to understand realities and experiences of Mexican-American community. Prerequisite: SPAN 421 or instructor's approval.

SPAN 459 Special Studies in Spanish and Spanish-American Literature (3)
Specific periods, themes or literary types. Contents vary according to the interests and needs of the instructors and students. Prerequisite: SPAN 421 or instructor's approval.

SPAN 469 Studies of a Major Author (3)
Works of a major author in Peninsular or Spanish-American literature. Prerequisite: SPAN 421 or instructor's approval.

SPAN 470 Intensive Spanish Grammar for Reading (3)
This course has been devised for students whose needs are not filled by existing grammar courses and those whose sole interest is to acquire a reading knowledge of Spanish.

SPAN 471 Spanish for the Professional (3)
Specialized vocabulary for health, law, education (nonteaching), social and civil services, business and tourism. Given in professional area as demanded. No major credit. Prerequisite: SPAN 301, 311, or 312.

SPAN 478 Hispanic Children's Literature (3)
Study of Hispanic children's literature including not only available texts but the oral tradition. Comparative literature orientation, emphasizing parallels with myths, fables and folk literature of other lands.

Speech
Bachelor of Arts

Speech

Bachelor of Arts

Administered by the Division of Humanities and Fine Arts. Please refer to that section for general degree requirements.

Speech as an academic field encompasses the theory and practice of oral and written communication. The field has traditionally been oriented toward preparing students as individual oral communicators in public speaking, group discussion processes and person-to-person communication. However, training in speech communication requires that students be familiar with the theory of communication as it applies to encoding and decoding both oral and written messages. Basic speech communication theory involves the analysis of messages (rhetorical criticism), interpersonal and group communication theory as well as the principles of attitude and behavior change via persuasion.

Although customarily emphasizing oral communication, the study of speech also includes analysis of argumentative strategies and persuasive devices as present in written forms of communication.

At U. T. Permian Basin, programs in Speech and mass communications are associated in the faculty of communication, indicating a close relationship between the approaches of these two fields.

Depending upon the student's interest, studies in speech may be directed into one of several areas. Students may choose to study speech as a humanistic field, emphasizing such courses as oral interpretation and rhetorical criticism. Students selecting this option would probably choose theatre, literature, history and related fields as a minor. Students may approach speech as a social science directing particular attention to communication and persuasion theory. Related minor areas of study would include mass communications, psychology, sociology, management and other fields.

Many students interested in humanities or social sciences, select speech as a secondary field or minor area of study. Other students find that one or two elective courses in speech communication may complement their major field or increase their awareness, confidence and effectiveness as personal communicators.

Students majoring in speech should plan to attain competency in the following areas:

1. **Interpersonal Communication:** communication as it affects the relationships between persons. SPCH 335, 418, 456.

Speech
Bachelor of Arts

2. **Group Processes:** communication pertaining to decision-making and problem-solving in small task groups. SPCH 315, 335, 418.

3. **Public Speaking:** strategies for constructing messages and analyzing audiences in the oral communication setting. SPCH 310, 345, 346, 460.

4. **Oral Interpretation:** use of oral techniques to communicate literary meaning. SPCH 346, theatre elective.

5. **Argument:** finding and communicating goal reasons. SPCH 340, 456, 460.

6. **Persuasion:** language and its influence on human attitudes and behavior. SPCH 340, 351, 456.

7. **Communication Theory and Criticism:** underlying principles concerning the process by which sources construct messages for given audiences. SPCH 330, 340, 351.

Sample Degree Plan-Speech*

Sample Degree Plan

Junior Year

First Semester		**Second Semester**	
SPCH 335	3	SPCH 310	3
SPCH 345	3	SPCH 346	3
SPCH Elective	3	Course in Minor	3
Courses in Minor	6	Elective	3
	15		12

Senior Year

First Semester		**Second Semester**	
SPCH 351	3	SPCH 418	3
SPCH 456	3	SPCH 460	3
Course in Minor	3	Course in Minor	3
Electives	6	Electives	6
	15		15

*Degree plans vary depending upon a student's goals and preparation prior to enrolling at U. T. Permian Basin. Students should consult with their faculty advisors for specific degree planning.

Speech
Bachelor of Arts

Course Listing

SPCH 310 Participation in Speech Activities (1)
Involvement-oriented training in theory and practice of communication activities such as debate, oral interpretation and persuasive speaking.

SPCH 315 Parliamentary Procedure and Group Leadership (3)
Group management skills by which self-governing bodies transact business. Emphasis on both formal parliamentary mechanisms and general problem-solving techniques.

SPCH 335 Interpersonal Communication Awareness (3)
Principles of communication underlying the initiating, maintaining and altering relationships between persons.

SPCH 345 Improving Public Speaking Skills (3)
A practice-oriented course in public speaking. Students prepare, present and analyze reports and speeches.

SPCH 346 Oral Interpretation of Poetry (3)
Oral re-creation of literature and its analysis. Principles and practice of group performance in reader's theatre.

SPCH 351 Rhetorical Analysis and Criticism (3)
Principles and standards for the analysis and criticism of communication. Critical concepts applied to selected oral and written messages.

SPCH 406 Reader's Theater (3)
Group technique practice and study of concepts to transform a literary text into reader's theatre production.

SPCH 418 Dynamics of Small Group Communication (3)
Communication in group settings. Observing group interaction and engaging in problem solving on a group basis.

SPCH 456 Theory of Argument and Persuasion (3)
Strategies and principles of argumentation as they apply to influencing human attitudes and behavior.

SPCH 460 Theory and Practice of Debate (3)
Principles of argument as a basis for testing the merits of issues in subjects of controversy.

Special Courses
Business Law

Course Listing

Courses Only
Business law courses are offered in support of other programs at U. T. Permian Basin and for those students interested in pre-law preparation.

BLAW 320 Legal Environment of Business (3)
Origin and history of law, its place in and effect upon society; court systems and legal procedures and their effect on businessmen and consumers.

BLAW 321 Legal Aspects of the Management Process (3)
Law affecting management decisions regarding creating, regulation and control of business structures. Includes law of agency, principles of personal and real property law. Prerequisite: BLAW 320.

BLAW 322 Oil and Gas Law (3)
Legal problems in natural resource areas of oil and gas exploration, development and marketing.

Special Courses
Communication

Course Listing

This course does not form a part of any discipline but may be elected by students in any major.

COMM 342 Scientific Writing (3)
Principles and techniques of library research data reporting and scientific report writing. Preparation of papers in student's scientific fields.

Special Courses
Decision Science

Courses Only
Decision Science courses are offered to service other programs throughout the university, with special emphasis on production management.

Course Listing

DSCI 301 Introduction to Statistics (3)
Areas of descriptive statistics, statistical inference, regression and correlation analysis. Should be taken prior to 400 level courses. Prerequisite: demonstrated proficiency in algebra.

DSCI 405 Intermediate Statistics (3)
Specialized hypothesis testing: ANOVA and Chi-Square. Statistical decision theory in its economic context. Prerequisite: DSCI 301.

Special Courses
Environmental Sciences

Environmental Sciences

Minor Only

The Environmental Sciences minor is an interdisciplinary program for non-science majors who desire to know more about their environment. Requirements include:

1. A minimum of 18 semester credit hours, 12 of which must be upper-level.

2. Contemporary Natural Science I, II and/or III (NTSC 301, 302, 303), 6-9 semester credit hours (2 or 3 courses).

3. At least 6 semester credit hours of environmental sciences. The minor will be arranged in consultation with the Director of the Division of Science, Mathematics and Computer Science, from whom more information may be obtained.

Special Courses
Natural Science

Courses Only
This is an integrated two- or three-semester course sequence designed to emphasize the contemporary aspects of biology, chemistry, earth sciences and physics while minimizing the distinction between the disciplines. Stressed throughout are:

1. The impact of science on the individual's life.
2. The interaction of science with social, economic and political forces.
3. The strengths and limitations of science.
4. An understanding of science as a human endeavor.

These courses are designed for nonscience majors, but may be taken with permission as electives for science majors. They also may be used to satisfy the physical and biological sciences requirements for graduation as well as the science requirements for teacher certification. These courses are independent of each other and one, two or all three may be taken in any order.

NTSC 301 Contemporary Natural Science I (3)
Interaction of populations and life-support systems (energy, air, resources, water); environmental ethics.

NTSC 302 Contemporary Natural Science II (3)
Man as part of the environment: food chains, chemicals, radioisotopes and health.

NTSC 303 Contemporary Natural Science III (3)
Meteorology; climatology; the hydrological cycle; chemical, physical and biological oceanography; ocean resources; the planets, stars and galaxies; optical and radio astronomy; and remote sensing.

Special Courses
Philosophy

Courses Only
The study of philosophy is concerned with man's values and relationships with other individuals within institutions as well as in the speculative domain. It is also concerned with such matters as ethics, political and legal philosophy, aesthetics, standards of excellence in various pursuits and institutions, metaphysics, philosophy of religion, history, science and linguistics.

The university does not offer a major in philosophy but does offer courses which students may find of interest as a part of their general education.

Course Listing

PHIL 311 Logic (3)
Principles of reasoning and the systematic application of human intelligence in problem-solving. Symbolic logic, rule and laws of logical thought.

Special Courses
Physics

The University does not offer a degree in physics but does offer courses which students may include in their general education or for a minor.

Course Listing

PHYS 301 Mechanics (4)
Measurement, vectors, kinematics, conservation of energy and rigid body motion. Includes a laboratory. Prerequisite: differential and integral calculus.

PHYS 302 Electricity and Magnetism (4)
Electric charge and Coulomb's law, electromagnetic fields, magnetic force fields, Ampere's Law, Biot-Savart's and Faraday's laws. Includes laboratory. Prerequisite: differential and integral calculus.

PHYS 303 Heat, Light, and Sound (4)
Simple harmonic motion, traveling waves, the super-position principle, temperature and heat, the kinetic theory ideal gases, entropy and the second law, light intensity, polarization, Doppler shift, reflection and refraction, interference and diffraction. Includes a laboratory. Prerequisite: Differential and integral calculus.

Special Courses
Theatre

Course Listing

THEA 361 Shakespearean Production (3)
Offered in conjunction with the Summer Shakespeare Festival of the Globe of the Great Southwest; introduces students to all phases of Shakespearean production in one of the most authentic settings existent throughout the world.

THEA 362 Creative Dramatics (3)
Improvisational drama, focusing upon learning imaginative techniques for dramatizing an idea, feeling or situation. Drama as "play" rather than performance.

THEA 405 American Drama (3)
Historical development of American drama; types of dramatic literature and masterpieces in American drama. Same as LIT 405.

THEA 425, 426 British Drama I, II (3,3)
Drama as a literary genre through major works of British drama from the Middle Ages to 1800 and from 1800 to the present.

THEA 479 Performance Workshop (3)
Play production activities including acting, stage managing, scenery, properties, lighting, costumes, publicity and box office.

Glossary of Undergraduate Courses

Glossary of Undergraduate Courses

For purposes of computer processing, each discipline or area of study is assigned a letter abbreviation for identification consisting of either three or four letters, which is to be used in registration and elsewhere when the data is to be processed through the computer. The abbreviations are:

Standard Course Numbers

Undergraduate Courses

Course Numbering System

300-399	Junior courses; ordinarily not eligible for graduate credit. See "Undergraduate Courses for Graduate Credit."
400-499	Senior courses; under certain conditions may be taken by post-baccalaureate and graduate students for graduate credit. See "Undergraduate Courses for Graduate Credit."
600-699	Graduate courses; open to graduate students, to students holding a baccalaureate degree and to U. T. Permian Basin seniors within ten hours of completing a baccalaureate program who have applied for and received admission to a graduate program.

Standard Numbers. At the university, several numbers are standard among all disciplines or in certain categories of disciplines.

389 Selected Topics
Undergraduate courses which will be offered only once or will be offered infrequently or which are being developed before a regular listing in the catalog. Offered in all disciplines.

391 Contract Study
Students who are pursuing independent study or research as described in the contract study format. Offered in all disciplines.

398 Senior Seminar
Seminar in the discipline or related disciplines.

489 Selected Topics
Same as 389, may be acceptable for graduate credit. (See "Undergraduate Courses for Graduate Credit".)

491 Contract Study
Advanced independent study or research. (Same as 391 but equivalent to senior-level course)

492 Practicum/Experiential Learning/Authentic Involvement
The number under which students register to meet the experiential learning requirement set forth in this catalog. Available in all disciplines in which a bachelor's degree is offered.

498 Senior Seminar
Seminar in the discipline or related disciplines.

The student must have the approval of the responsible instructor and an approved written contract before registering for courses 391, 392, 491 and 492. In some cases, prior approval is required for other courses and will be so indicated in the course descriptions in this catalog.

Graduate Study

Graduate Study

The university's graduate programs are administered by the Director of Graduate Studies under the direction of the Vice President for Academic Affairs. The Graduate Council, composed of one elected member from each of the five divisions and the Director of Graduate Studies, is responsible for developing policies and procedures concerning graduate education. It also advises the university administration on the operation of graduate programs.

Admissions

Admissions

Admission to Graduate Study. Those seeking admission should write to the Dean of Admissions for an application form, which must be filled out and returned. Also, official transcripts of all prior college or university study must be sent directly to the U. T. Permian Basin Admissions Office.

There are five basic requirements for acceptance to a graduate program: official evidence of (1) a bachelor's degree from an accredited institution in the United States or proof of equivalent training at a foreign institution; (2) a **B** average or better in upper-level (junior and senior level) work and in any graduate work already completed or other evidence that one can succeed in graduate study; (3) a satisfactory score on the Graduate Record Examination (or, for the MBA program, the Graduate Management Admission Test); (4) adequate subject preparation for the proposed graduate program; and (5) acceptance by the faculty of the discipline in which the student expects to pursue graduate study. The department chair or coordinator will transmit to the Director of Graduate Studies the department's recommendation regarding the application, including status and conditions of acceptance. Departmental acceptance of a student to graduate study is subject to review by the Graduate Studies Director for consistency with graduate policies and procedures.

Deadlines for Submission of Application. The application and all supporting documents, including GRE (or GMAT) scores and official transcripts from all previous colleges or universities attended must be received by the Admissions Office at least thirty days prior to the registration date. Student copies of supporting documents are not acceptable.

International Students Admissions. See "Undergraduate Admissions," International Student Admissions, pg. 14.

The Graduate Record Examination General (Aptitude) Test. The General (Aptitude) Test of the Graduate Record Examination is designed to test preparation and aptitude for graduate study. Students seeking admission to all graduate programs except the MBA must achieve a satisfactory score on the GRE. Students seeking admission to the MBA program must achieve a satisfactory score on the GMAT (see below). The GRE is taken at the applicant's own expense and ordinarily is given five times a year, usually in October, December, February, April and June.

The Graduate Management Admission Test. The GMAT is an aptitude test designed to measure certain mental capabilities important in the study of management at the graduate level, and it must be completed with a satisfactory score by all students seeking acceptance into the MBA program. The test is taken at the applicant's own expense and ordinarily is given twice a year, usually in October and June.

Admissions

Admissions

Senior-Graduate Concurrent Study. U. T. Permian Basin seniors needing fewer than 10 semester credits for graduation and meeting other admission requirements may be admitted to graduate study. They must be registered concurrently for all remaining courses required for the bachelor's degree and obtain written permission from the Director of Graduate Studies to take graduate courses.

Standards and Levels of Graduate Admissions. A student who holds a bachelor's degree from an accredited institution of higher education is eligible for acceptance into a graduate program under one of six categories. Students accepted into programs with other than regular status (see below) will be assigned special conditions by which they may attain regular status. These conditions include both the number of semester hours to be taken and the minimum grade requirements. If these conditions are not met in their entirety, the student will be denied permission to continue in the graduate program. Only under the most extraordinary and compelling circumstances, and with the approval of the Director of Graduate Studies, will students seeking regular status be allowed to drop courses meeting their assigned special conditions for acceptance.

1. *Regular Status.*
   a. With an earned graduate degree from an accredited college or university;
      or
   b. With a grade-point average (GPA) of 3.0 or higher (on a 4.0 scale) in the upper-division courses required for the degree *and* a total Quantitative - Verbal - Analytical Graduate Record Examination (GRE) score of 1500 (1000 if only the Quantitative - Verbal exam is taken).

   In place of these GRE provisions, acceptance to the MBA program is possible by presenting a satisfactory Graduate Management Admission Test (GMAT) score. See "Master's Degree Program - Master of Business Administration."

2. *Provisional Status.*
   A student whose GPA for upper-division courses is between 2.5 and 2.9 *and/or* whose GRE score total lies between 1200 and 1499 inclusive for Quantitative - Verbal - Analytical (800 and 999 inclusive for Quantitative -Verbal) may be accepted provisionally (MBA students should consult MBA section). Students accepted with provisional standing will, upon successful completion of a minimum of 9 semester hours of graduate coursework, with a **B** or better in each course taken, be granted regular standing.

Admissions

Admissions

3. *Undergraduate to Qualify Status.*
A student whose GPA is between 2.0 and 2.5, *and/or* whose GRE score is less than 1200 for Quantitative - Verbal - Analytical (800 for Quantitative - Verbal) or by using the formula for the GMAT attains a numerical level of less than 1000, may be admitted to take undergraduate courses in the field in which the student intends to pursue graduate study. The number of semester credit hours and specific courses will depend on the student's GPA *and/or* GRE scores and coursework completed, but will consist of at least 12 semester credit hours. Courses will be selected jointly by the student and the advisor and will be used to make up prerequisite deficiencies in the student's undergraduate preparation for graduate work. A grade of **B** or better must be achieved in each course. Upon completion of the coursework, the student will be reviewed for regular status and if approved, can begin work toward the degree. Coursework taken while a student is classified as *undergraduate to qualify* will **not** count toward graduation requirements.

4. *Conditional Status.*
Students whose undergraduate degree is in an academic discipline other than the one in which they wish to do graduate work ordinarily will be required to take undergraduate leveling courses prerequisite to or supporting the graduate courses to be taken. A grade of **B** or better must be received in each course. Semester credit hours earned for these courses will **not** count toward the minimum number of graduate credits required for the degree.

5. *Special Admission Status.*
Students with less than the minimum GPA or with less than satisfactory scores on the GRE or the GMAT (see 3. Undergraduate to Qualify Status) may nevertheless be accepted on the recommendation of the appropriate Department Chair or Program Coordinator with the approval of the Vice President for Academic Affairs. The Director of Graduate Studies may assign special conditions including the number of semester credits to be taken and the minimum GPA to be maintained.

6. *Post-Baccalaureate Non-Degree Status.*
Individuals who have received a baccalaureate degree from an accredited institution may be allowed to take graduate level courses without being accepted into a degree program at U. T. Permian Basin as follows:
a. Students seeking one or a series of courses only and wanting credit;

Admissions

b. Students seeking teacher certification, endorsement or an additional teaching field;
c. Students planning to enter a degree program who are not yet eligible for admission because of missing documents and/or GRE/GMAT scores.

Permission to register in graduate courses with Post-Baccalaureate Non-Degree status does not constitute acceptance into a graduate program, nor can the courses taken prior to formal acceptance into a graduate program be counted toward the requirements for a graduate degree without a specific recommendation by the department chair or program coordinator and approval by the Director of Graduate Studies. Such approval is rarely given for coursework taken after the student's first semester on campus. Students under category c., above, who wish to request permission to count the coursework taken during their first semester on campus should complete the admission requirements during their first semester of study.

Individual degree programs may have additional requirements for acceptance to graduate study and advancement to candidacy for the degree.

Financial Aid

Financial Aid

Various forms of financial aid are available to graduate students. Grants, loans and scholarships are listed below. Students should also refer to the Financial Aid section of the undergraduate portion of this catalog to obtain further detail on applications and regulations. The following programs apply to graduate students:

Student Loans

Future Teacher Loan Program
Hinson-Hazlewood Student Loan
Teacher Education Loan Program
Guaranteed Student Loan
Short Term Loans

University Grants

Texas Public Education State Student Incentive Grant
Texas Public Education Grant

Scholarships

AAUW - Midland Chapter
AAUW - Odessa Chapter
Haley Library Internship
Jesse H. & Mary Gibbs Jones Graduate Assist.
William A. King Art Scholarship
Nojem Libson
Literature
Permian Historical Society Grad. Fellowship
W.D. Noel Class A
W.D. Noel Class B
Potts & Sibley Foundation
A.J. Schill
State Society of CPA's Local Chapter
100 +

Other Programs

College Workstudy
Fee Waivers
Off-Campus Employment
Institutional Part-time Work
Texas Rehabilitation Assistance for Students
Veterans Education Benefits
Tuition Installment Program

Contact the Financial Aid Office for information and counsel.

Graduate Study Regulations

Student Responsibility. Students are responsible for knowing degree requirements and for enrolling in courses that apply to their degree program. Knowing university regulations pertinent to the standard of work required for continuation in graduate study is also the student's responsibility.

Properly prepared students may register for graduate courses without formal acceptance to a degree program provided they complete a *Declaration of Intent* form stating that they are not pursuing a degree. Courses elected at U. T. Permian Basin under this plan may not be applied toward a degree until the student is accepted into a graduate program and has developed a degree plan in consultation with an advisor assigned by the Department Chair or Coordinator overseeing the program.

Graduate course work in excess of 6 semester credit hours taken prior to formal acceptance into a degree program will apply toward a degree only if, in the judgment of the student's graduate committee, such course work is appropriate to the student's program. Failure to take the GRE/GMAT before the completion of 6 semester credit hours of graduate study will result in the student's being denied permission to enroll until the GRE/GMAT is taken.

Transfer of Credits. Credit for graduate courses completed at another accredited college or university may be applied toward a master's degree at U. T. Permian Basin. A maximum of 6 semester credits may be transferred if appropriate for the student's program and approved by the student's advisor, provided the student earned a grade of **B** or better. Three additional credits may be transferred upon approval of the Director of Graduate Studies.

All credit transfers must be approved *prior to the student's completion of 12 credits at U. T. Permian Basin.* A petition to accept more than 9 semester hours of credit must be presented to the Director of Graduate Studies. Timely submission of a petition is the responsibility of the student. Should the advisor and/or Director of Graduate Studies not approve the transfer of any credits, the student has the right to submit the petition to the Graduate Council, which will make the final decision. When submitted to the Graduate Council the petition must include the recommendations of both the student's advisor and the Director of Graduate Studies.

To insure acceptance of credit toward the master's degree the student must obtain prior written approval from the Department Chair or program

Graduate Study Regulations

Graduate Study Regulations

Coordinator of the student's major field for any courses taken at another institution after the student has matriculated at U. T. Permian Basin. No correspondence study credits apply toward the minimum requirements for the master's degree, and no credit more than eight years old at the time of graduation may be applied toward requirements for the degree, including any transfer credit. A maximum of 6 semester credit hours of extension course work, whether completed through U. T. Permian Basin or at another institution, may be applied toward meeting minimum requirements for the master's degree.

Undergraduate Courses for Graduate Credit. Under certain circumstances undergraduate courses may be taken for graduate credit, although no 300-level course credits may be applied toward master's degree requirements. Both 300- and 400-level courses in ancillary or supporting fields may be required for leveling purposes when in the opinion of the student's advisor and committee they are necessary to provide a sufficient background in the major and/or minor fields.

Generally 400-level courses in the student's major and minor fields may be used to fulfill the requirements for the degree only when requisite 600-level courses are not offered. Not more than 6 semester credit hours of 400-level courses may be applied to the requirements for a master's degree. Further, a graduate degree plan must include not less than fifty percent plus 3 semester credit hours of 600-level, *non-cross-listed* courses.

To be eligible for graduate credit, each 400-level course must be approved by the Division offering the course. In addition, the course must be taught by a member of the graduate faculty or by other faculty approved to teach graduate courses. Students electing these courses for credit toward a U. T. Permian Basin graduate degree must complete work in addition to that required of undergraduate students and will be expected to perform at a graduate level of academic work. Instructors must indicate on the twelfth class day roster their awareness of the student's intention to use the course for graduate credit.

Course Load. Nine semester credit hours constitute a full-time semester load for graduate students. The maximum course load for graduate students is 15 semester credit hours in a fall or spring semester or 6 semester credit hours in a 6 week summer term. Registration in excess of these requires approval of the Director of Graduate Studies and is permitted only under exceptional circumstances. Students employed by U. T. Permian Basin as student or teaching assistants must reduce their course loads accordingly. Part-time students employed full time should normally take no more than two courses per semester.

Graduate Study Regulations

The maximum credits for which students may register in a semester or summer term apply to the combined credit for both conventionally taught courses and self-paced courses. If students finish a self-paced course before the end of the semester or summer term, they may register for another self-paced course immediately or at any time during that semester up to 4 weeks prior to the end of the semester.

Grades. Students in graduate programs receive credit only for courses in which a grade of **A, B** or **C** has been earned. The master's thesis/project will be graded **S** for Satisfactory and **U** for Unsatisfactory. The **S** does not calculate in the Grade Point Average (GPA). The **U** calculates as a failing grade in the GPA. Degree candidates are required to present an overall average of not less than **B (3.0)** at the end of their program of study. Pluses and minuses do not enter into the GPA calculation.

For thesis/project work in progress, the letters **PR** will be assigned in lieu of a final grade. Upon completion of the master's thesis/project and upon final evaluation by the committee, grades for the most recent enrollments (not to exceed 6 credits for thesis and 3 credits for project) will be converted to **S** or **U**. All grades of **PR** in excess of 6 credit hours for thesis and 3 credit hours for project will be converted to **NG** (No Grade). Neither the **PR** nor the **NG** grade calculates in the GPA at any time.

Academic Progress. Continuation in graduate study is dependent on satisfactory progress in resolving any acceptance conditions and maintenance of not less than a **B** average (3.0 GPA).

A graduate student whose GPA falls below a 3.0 will be placed on probation for one semester or 6 semester credit hours. Failure to bring the cumulative GPA up to 3.0 within that period will result in dismissal. After one semester, a student who has been dismissed may re-apply for admission and must present evidence of reasonable expectation to succeed in graduate study. A student dismissed a second time may re-apply after one full academic year. No student may re-apply after three dismissals for academic deficiencies.

Each student must register for the number of hours determined by his committee for his master's thesis/project. A student who fails to complete the requirements for the thesis/project after completion of these designated hours must register for 3 credit hours of 698/699 in each subsequent semester until completion of the thesis/project without receiving additional semester hour credits or grades.

Graduate Study Regulations

Graduate Study

Time Limitations. No course credit more than eight years old at the time of graduation may be applied toward requirements for the degree, including any transfer credit.

Courses Counted for Another Degree. No course counted toward another degree may be counted toward a master's degree, either directly or by substitution.

English Proficiency. All students pursuing a master's degree at U. T. Permian Basin are expected to demonstrate proficiency in the English language. International students must submit a satisfactory Test of English as a Foreign Language (TOEFL) independent-study score (550 or better) in order to be admitted to graduate study. See "International Student, pg. 14.

Advisement. Upon acceptance into a graduate program, each student will be assigned a faculty advisor by the Department Chair or Coordinator of the program in the student's field of major interest. Prior to completion of one-half of the course credits required for the degree, the advisor and the student will nominate a committee of three or more members of which the initial advisor may or may not be the chair or a member. Each graduate student's committee will consist of graduate faculty members from the academic department(s) offering the degree, plus one member from outside the department(s) who will represent the graduate faculty. The graduate faculty representative will be appointed by the Director of Graduate Studies, who will also approve the committee and the student's degree plan.

The committee is responsible for developing the student's program of study, for arranging and conducting examinations and for certifying the student's completion of all requirements for the degree. All recommendations by the committee are subject to review and approval by the Director of Graduate Studies.

Candidacy. Candidacy for the master's degree is established when, following acceptance into a degree program and completion of all acceptance requirements, the graduate student and the advisor plan a program of study which is approved by the student's committee, the Department Chair or program Coordinator and the Director of Graduate Studies. Filing of the degree plan with the Office of Graduate Studies should be done at or prior to completion of 12 semester credit hours of degree requirements and must be done prior to completion of 18 semester credit hours toward the degree. Students failing to submit a program or receive approval may be required to complete one-half of the required

Graduate Study Regulations

Graduate Study Regulations

Continuous Registration. Students who have begun their master's thesis/project research should register for 699/698 each regular semester until the degree requirements have been completed, unless granted an official leave of absence from the program for medical or other exceptional reasons. Although multiple registrations for these courses are common, only six hours of credit for thesis or three hours for project will be granted on the final academic record.

Enrollment for thesis or project is permitted only during the regular and late registration periods. Students away from campus may register by mail, providing arrangements are made with the Registrar's Office at least thirty days prior to the registration period for the semester. Under special circumstances, registration *in absentia* may be permitted if approved by the committee chair and the Director of Graduate Studies.

Oral Examination. Successful completion of all courses and research requirements does not assure receipt of the master's degree. After all requirements have been fulfilled, candidates (except MBA) normally sit for an oral examination by their committee, including a representative of the graduate faculty. The examination covers the subject matter of the candidate's field or discipline and research, if a thesis/project is part of the student's program. Candidates must demonstrate an appropriate level of knowledge and understanding of their field and research effort in the oral examination. Two negative votes on a committee of 4 or more members results in failure. Candidates failing the oral examination may sit for re-examination only twice more within 5 years of the initial failure. Candidates failing the examination will be given directions for study or rewriting of the thesis/project report in order to improve the chances of passing the examination on a subsequent attempt.

Applying for Graduation. The prospective graduate must complete and file an application for graduation during the registration period of the semester graduation is planned. Students failing to graduate after paying the graduation fee will forfeit that fee and must reapply when they register for the semester in which they graduate. Early in the semester of graduation a degree check will be initiated for the student. The student must enroll for at least 3 semester credit hours in one of the standard numbered courses during the semester in which graduation actually occurs or, under special circumstances, register *in absentia*.

Graduate Study Regulations

Graduate Study Regulations

***In Absentia* Registration.** A candidate for a degree who has completed all the requirements for graduation and who needs to register for the purpose of having a degree conferred (not to take courses) must register *in absentia*. This is the only purpose for which a student may register *in absentia*. After registration for credit during a semester or summer session, a change to *in absentia* status must be approved by the Director of Graduate Studies and processed through the add/drop procedure; i.e., a student will drop the courses for which he has registered and add the *in absentia* registration. All fees, less the *in absentia* fee, will be refunded if the change is made during the first twelve class days. After the twelfth class day, no refunds are made and no additional charge will be assessed for the *in absentia* fee. The university ID card and original paid fee receipt must be returned before a refund can be issued. No refund is made for the cancellation of an *in absentia* registration.

Master's Degree Programs

MA	Behavioral Science	Division of Behavioral Science and Physical Education Dr. Joel Greenspoon
MS	Control Engineering	Division of Science and Engineering Dr. Thomas A. Hyde
MA	Education	Division of Education
	Educational Administration	Dr. Clarence D. Kron,
	Counseling	Dr. Patricio Jaramillo
	Early Childhood Education	Dr. Robert F. Ihinger
	Elementary Education	Dr. G. Peter Ienatsch
	Reading	Dr. Laura A. Smith
	Secondary Education	Dr. Terryl J. Anderson
	Special Education	Dr. Munro Shintani
	Supervision	Dr. Clarence D. Kron
MS	Geology	Division of Science and Engineering Dr. Emilio Mutis-Duplat
MA	History	Division of Humanities and Fine Arts
MS	Life Science	Division of Science and Engineering Dr. Edwin B. Kurtz
MA	Literature	Division of Humanities and Fine Arts
MBA	Management	Division of Business Administration Dr. Corbett Gaulden
MA	Physical Education	Division of Behavioral Science and Physical Education Dr. Lois S. Hale

Standard Course Numbers

Standard Course Numbers

Several numbers are standard among all disciplines at U.T. Permian Basin or in certain discipline categories. These include:

689 Selected Topics (1-3)
Graduate courses which will be offered only once, will be offered infrequently or are being developed before a regular listing in the catalog. Available in all disciplines in which the master's degree is offered.

691 Contract Study (1-3)
For students who are pursuing independent study or research (as described in the contract study format). Available in all disciplines in which the master's degree is offered.

692 Experiential Learning (1-3)
Referred to as authentic involvement or as practicum depending upon the discipline. Available in disciplines in which the master's degree is offered.

695 Seminar (1-3)
Available in all disciplines in which the master's degree is offered.

698 Master's Project (1-3)
Meets the research requirements in nonthesis master's degree programs.

699 Master's Thesis (1-6)
Meets the research requirements in thesis master's degree programs.

Students must have the approval of the instructor before registering for courses 691, 692, 698 and 699. In some cases, prior approval is required for other courses and will be so indicated in the schedule of classes.

Behavioral Science
Master of Arts

Master of Arts

The Master of Arts program in Behavioral Science is designed to prepare individuals for community service work in a variety of applied fields, including vocational rehabilitation, community and social service counseling, parole and probation supervision, urban affairs, mental health care, youth counseling, industrial counseling, and other fields. The Master of Arts degree program in Behavioral Science is open to all qualified students with baccalaureate degrees from accredited colleges or universities.

Fifteen hours of undergraduate prerequisite courses are required for admission to the graduate Behavioral Science program. These include 3 semester credit hours in statistics, 3 hours in psychology of learning, 3 hours in experimental psychology or research methods in psychology, 3 hours in social psychology or social behavior, and 3 hours in history and systems of psychology. Students with deficiencies in these prerequisites must either take the appropriate course(s) or pass an examination covering the content of each course in which the student is deficient. Examinations are prepared and evaluated by the instructors of the appropriate courses. Deficiencies must be removed in the first two semesters the student is enrolled in the graduate program.

The Behavioral Science program is interdisciplinary in nature, including study in Behavioral Science, Psychology, and Sociology, as well as courses in the Division of Management and Marketing. All students take a common core of Behavioral Science courses. The core courses provide all students, regardless of their specialization, with a uniform and thorough conceptual understanding of human behavior and the dynamics of social institutions.

In addition to the required core courses, students take other required courses appropriate to their specialization. Students may specialize in applied psychology, applied social science, community counseling, criminal justice, general academic management, and personnel management. Students also take elective courses according to their particular interests and career needs.

Students interested in state certification as a psychological associate must complete a 42-hour master's program in applied psychology, including 450 clock hours in practicum.

In lieu of a traditional thesis, students must develop a research project involving a problem in their special area of interest.

Behavioral Science
Master of Arts

Behavioral Science

Problems are investigated under the supervision and direction of the student's committee and will involve the application of principles and theories of behavior to some problem area of behavior.

In addition to the master's project, students are required to complete 3-6 semester credits in a practicum conducted in the area of their special interest. The supervision of the practicum is shared by the personnel of the facility and the university. An interdisciplinary seminar with faculty members and students in their final semester serves as the culmination for the entire program. This seminar is designed to integrate the coursework, the practicum experience and the research problem into a coherent and meaningful entity.

An illustrative program assuming a 12-hour semester course load is presented as follows:

First Semester		
BVSC 600	Theories and Systems of Behavior I	3
....	A selection of courses from psychology, educational psychology and management to fit the career goals of the student.	9
		12
Second Semester		
....	A selection of additional courses from the 4 disciplinary areas above to fit the particular career preparation needs of the student	
		12
Third Semester		
BVSC 692	Practicum	3-6
BVSC 698	Master's Project	3
....	Elective	3-0
		12

The same sequential order prevails for part-time students in that the practicum, the master's seminar and master's project will constitute the terminal courses in the sequence.

Behavioral Science
Master of Arts

Course Listing

BVSC 600 Theories and Systems of Behavior I (3)
Overview of psychology, learning theories and concepts; integrative in nature, including a review of research appropriate to the techniques and methods of behavioral science application.

BVSC 601 Theories and Systems of Behavior II (3)
Sociological and anthropological theories and concepts; integrative in nature, including a review of research appropriate to the techniques and methods of behavioral science applications.

BVSC 680 Research Methods (3)
A review of the research methods used in the investigation of problems within the behavioral and social sciences.

BVSC 692 Practicum (3-6)
The Practicum is a required part of the program since it involves the student's obtaining practical experience under supervision.

BVSC 695 Interdisciplinary Seminar in Behavioral Sciences Practicum (3)
Designed to integrate behavioral science coursework with practicum experience into a coherent, meaningful entity.

BVSC 698 Master's (3)
A required part of the BVSC M.A. Program. The student must demonstrate the ability to plan and conduct a research project.

Psychology

PSYC 605 Advanced Applied Behavior Analysis (3)
A study of the applications of the principles and methods of learning to a variety of human behavioral problems.

PSYC 621 Sources of Abnormal Behavior (3)
Research on the major sources of variables involved in abnormal behavior.

PSYC 622 Current Psychotherapies I (3)
A critical analysis of various psychotherapeutic systems.

Courses from other areas of study are selected according to the program requirements and the student's needs in consultation with the faculty director of the program. Such courses and their description are listed under the appropriate disciplines.

Behavioral Science
Master of Arts

Course Listing

PSYC 641 Child Psychology I: Cognitive Processes (3)
An analysis of various theoretical interpretations of cognitive functions such as concept formation, problem solving, language, memory and attention. The determinants of differences in cognitive functioning will also be analyzed.

PSYC 642 Child Psychology II: Personality and Social Development (3)
Study of various theoretical interpretations and determinants of differences in social and emotional development. Topics include achievement motivation, aggression, moral development, peer relations, adult-child interaction and so on.

PSYC 650 Seminar in Intelligence Testing (3)
An examination of the principles and methods of assessing intelligence.

PSYC 651 Seminar in Personality Assessment (3)
An examination of the principles and methods of assessing intelligence.

Control Engineering
Master of Science

Master of Science

The Master of Science degree in Control Engineering provides advanced study in control theory, mathematics and the engineering sciences. The program of study assumes a preparation equivalent to the core undergraduate U. T. Permian Basin control engineering curriculum. Students seeking this degree should first review admission and graduate study regulations.

Two general plans of study are available: a 30-hour (minimum) plan (which includes 6 hours credit for the master's thesis) and a 36-hour (minimum) plan (which includes 3 hours credit for the master's project). The decision on which plan to follow is made jointly by the student and faculty advisor.

When students enroll in the program, they will be assigned an advisor from the faculty of Engineering, who will work with them to develop a preliminary program of study. Upon satisfactory completion of at least 9 semester credit hours of coursework and a satisfactory score on a qualifying examination, the student will be admitted to candidacy for the M.S. degree. At that time, a graduate committee will be appointed, ordinarily with the advisor as chairperson. The committee will provide guidance in the student's thesis or project. The student will later defend the thesis or project before the committee.

Students whose undergraduate engineering degrees were not in or closely related to control engineering may be required to take a number of basic control engineering courses for noncredit towards the degree. Non-engineering graduates will be required to complete sufficient undergraduate engineering and science coursework to meet the ABET (Accreditation Board for Engineering and Technology) minimum requirements for an undergraduate engineering degree as well as those necessary to provide a background in control theory, system dynamics, mathematics and engineering sciences equivalent to the U. T. Permian Basin BS degree in control engineering.

All students are required to complete at least 12 semester credit hours in advanced control theory, which must include ENGR 680 and 681 or their equivalent. The remainder of the 12 semester credit hours may be chosen from ENGR 620, 623, 624, 671, 682 and 684 as approved by the student's advisor. The additional required coursework should be chosen from the student's area of major interest and to support the thesis or project.

Control Engineering
Master of Science

Course Listing

ENGR 620 Linear Systems Analysis (3)
Linear lumped parameter systems unified through linear graphs and through across variable concepts. State variable formulation of systems and distributed systems.

ENGR 623 Stochastic Processes (3)
Methods to extract useful information from signals corrupted with random noise. Includes control of linear systems with random inputs and noise-corrupted measurements.

ENGR 624 Optimization Methods (3)
Engineering techniques for optimizing the performance of deterministic systems. Discrete and continuous system models; performance measures, Kuhn-Tucker conditions; calculus of variations; maximum principle; dynamic programming and quasi linearization; successive approximation methods.

ENGR 643 Advanced Electric Log Interpretation (3)
Quantitative analysis of electric logs to determine porosity, saturation, moveable hydrocarbons and lithology.

ENGR 671 Advanced Signal Processing (3)
Applications to analysis of data from control systems and seismic exploration.

ENGR 680 Control Systems Engineering (3)
Analysis and design of continuous control systems via classical and computer methods.

ENGR 681 Advanced Computer Control (3)
Analysis and design of computer control systems including techniques for determining the response and stability of discrete-time systems.

ENGR 682 Chemical Process Dynamics and Control (3)
Dynamic elements in the control loop, characteristics of real processes, linear and nonlinear controllers, multiloop concepts, feedforward control, interaction and decoupling, control of chemical processes, e.g., distillation column.

ENGR 684 Nonlinear and Distributed-Parameter Systems (3)
Characteristics and techniques of analysis of nonlinear control systems. Quasi-linearization, describing functions, phase-plane methods, stability and simulation. Introduction to analysis and control of distributed-parameter systems.

Education
Master of Arts

Master of Arts

The Master of Arts degree in Education is offered in educational administration, counseling, early childhood education, elementary education, reading, secondary education, special education and supervision.

Graduate students in Education seeking Texas certification should have had teaching experience before enrolling in graduate study. Those who have not had such experience will, except in unusual cases, be expected to gain teaching experience before completion of the MA degree. The Master of Arts degree program in Education is open to students not seeking educational certification. Students without prior professional education may be required to take 6-12 semester hours of leveling courses.

Students receiving the MA degree in Education must complete a minimum of 36 semester credits of a prescribed course of study. These 36 semester credits must include a minimum of 33 credits of prescribed course work plus the satisfactory completion of a 3-6 credit master's study and its oral defense before the student's master's committee. The master's study requires the student to pursue a problem involving an issue in education of special interest to the student which is derived from his program of study. This study shall be under the supervision and direction of the student's master's committee and shall involve the application of research techniques, theories and principles of education relevant to the problem studied. The format for the report of the master's study shall conform to one of the established manuals of style and the guidelines of the U. T. Permian Basin Graduate Council.

The Master of Arts degree program in early childhood education, elementary education, secondary education and special education may be so planned as to prepare the student primarily for teaching or for supervisory roles. The MA program in reading is designed to prepare reading specialists for teaching, diagnosis and coordination in elementary and secondary schools. The MA program in educational administration is designed for preparation and certification at the mid-management and superintendent levels. The master's program in supervision is designed to prepare general supervisors in program areas. The MA program in counseling is designed primarily to prepare counselors in the elementary or secondary schools.

The Master of Arts degree in Education requires at least one-half of the course work in the major area of study or in areas directly related to it. For those pursuing the MA in secondary education, the minor may be outside the field of education. For those pursuing the MA in elementary education, the minor may be in an academic area outside of education, or in a support area within education.

Education
Master of Arts

Education

For those pursuing the MA leading to the professional certification in elementary or secondary education, the coursework must include: (1) a minimum of 12 semester hours in an approved academic area of specialization; (2) a minimum of 6 semester hours in the professional development area; (3) 6 semester hours in a resource area; (4) 6 semester hours of elective courses; (5) 6 semester hours of degree related coursework.

MA programs for elementary and secondary may be organized to include endorsements in kindergarten, bilingual education or English as a second language.

Programs also are offered leading to certification as reading specialists, mid-management educational administrators (principals or central system administrators) and superintendents.

New Standards
Programs in Education are undergoing revision so as to meet the 1984 Standards for the Teaching Profession. Descriptions of coursework for new programs will be available in an addendum to the current university catalog. Please contact the Education Division for up-to-date information.

Course Listing
Administration and Supervision

EDUC 604 Appraisal of School Programs (3)
Functions of evaluation, performance and outcome measurement, design, administration and reporting of evaluation programs.

EDUC 606 Organizational Development in Schools (3)
Readings and applications, with an emphasis on designing strategies for developing school staff, structures, functions and behavior.

EDUC 607 Supervision of Instructor (3)
Systematic design and analysis of strategies for the supervision of teacher performance with an emphasis on clinical approaches.

EDUC 608 Supervision of Student Teaching (1-3)
Supervision of student teachers at secondary or elementary school levels. Techniques and procedures for supervising the effectiveness of instruction, activities and programs.

EDUC 660 Theory and Research in Administration (3)
Nature of organizational life and administrative behavior.

EDUC 661 Fiscal and Legal Aspects of Education (3)
Application of principles of public fiscal policy to education. Effects of the law on processes of public school education and its administration.

Education
Master of Arts

Course Listing

EDUC 663 Administration of Special Programs (3-4)
Administration of special and compensatory education, reading, career education, vocational-technical education and library media education.

EDUC 666 Administration and Management of Schools (3)
Major issues and trends in public school administration: centralization, decentralization, allocation of educational resources, organization, policy development and curriculum change.

EDUC 667 Foundations of Public School Administration (3)
Theory of administration. Study of setting, function and process of administration.

EDUC 668 Principalship (3)
Administrative processes and functions of the elementary and secondary school principal in the context of school district organization and administration.

EDUC 669 School Personnel Administration (3)
Personnel management theory and research. Emphasizes skills in recruitment, selection assignment, staff development, supervision and evaluation.

EDUC 683 School Finance (3)
Principles, trends and practices in financing public education, including sources of school revenue, taxation and fiscal policies.

EDUC 685 Educational Change and Design of Facilities (3)
Planning a building program: educational plan, determining objectives, specification, selecting the architect, evaluating plant, school standards and equipment.

EDUC 687 Education and Socioculture Change (3)
Contemporary social issues and their relationship to instruction and policy formation, including professionalization, race relations and pressure group influences and processes.

EDUC 688 Contemporary Philosophical Problems in School Administration (3)
Selected contemporary problems in school administration in terms of basic philosophical concepts such as "value," "freedom" and "authority."

Curriculum and Instruction

EDUC 615 Teaching Language Arts and Reading for Spanish Speakers (3)
A critical analysis of materials in Spanish available for teaching language arts and reading. A survey of strategies for teaching reading and language arts to Spanish speakers.

Education
Master of Arts

Course Listing

EDUC 616 Teaching English as a Second Language (3)
An introduction to theoretical and practical aspects of teaching English as a second language (written and oral) to non-English speaking children.

EDUC 621 Curriculum Foundations of the Elementary School (3)
Foundations of curriculum of the elementary school. Review of aims, methods and approaches to curriculum, instruction programs and evaluation.

EDUC 624 Art Since 1945 (3)
Starting from abstract expressionism to a study of recent directions in art. Emphasis is on art criticism.

EDUC 627 Advance Social Studies Education (3)
Issues, teaching strategies and curriculum materials are combined to provide knowledge and experience in recent trends in social studies education.

EDUC 628 Linguistics and Grammar for the English as a Second Language Teacher (3)
A survey of structures of English as well as general issues in language such as language variation, non-verbal communication and uses of languages.

EDUC 630 Theories of Curriculum and Instruction (3)
An introduction to contemporary conceptions of curriculum and instruction as related to teaching and administration in elementary and secondary schools.

EDUC 631 New Strategies in Secondary Science (3)
Organizing and sequencing lessons and units in junior high and senior high science courses. Students videotape and evaluate their own teaching.

EDUC 632 Current Issues and Trends in Curriculum and Instruction (3)
Examination of current areas of controversy affecting curriculum and instruction with emphasis on alternative values and positions in a pluralistic culture.

EDUC 634 Curriculum Foundation of the Secondary School (3)
Foundations of curriculum of the secondary school. Aims, methods and approaches to curriculum, instruction programs and evaluations.

EDUC 636 Advanced Problems in English as a Second Language (3)
A comparative and contrastive analysis of the interrelationships of language, culture and learning in the classroom setting.

Education
Master of Arts

Course Listing

EDUC 637 Problem Solving in Mathematics Education (3)
Examines recent findings regarding problem solving in mathematics education and analyzes a variety of models for heuristic application and diagnostic purposes.

EDUC 638 Strategies for Teaching Science, Mathematics and Social Studies in Spanish (3)
Primary emphasis will be placed on developing teaching plans, materials and teaching demonstrations using vocabulary appropriate for the discipline and grade level at which material is presented.

EDUC 639 Innovations in Teaching Elementary School Science (3)
Similarities and differences between newer elementary science programs and existing approaches; interaction with elementary children using materials and activities from current curricula.

EDUC 641 The Design of Instructional Systems (3)
Primary emphasis on designing a course of instruction using systems theory and the programmed instructional process.

EDUC 642 Individualized Instruction Thru Media (3)
Defining objectives behaviorally; developing sequential learning activities; analyzing pupil readiness; prescribing appropriate strategies for continuous individual progress through selective use of media.

Counseling and Guidance

EDUC 670 Introduction to Counseling and Guidance (3)
Theoretical, experiential and applied overview of counseling and guidance services in the schools and community. Emphasizes functions of counselors in different settings.

EDUC 671 Group Techniques for Counselors (3)
Dynamics and theory of group processes as applied to group procedures in counseling and psychotherapy.

EDUC 672 Career Counseling and Career Development (3)
Human development perspective of vocational counseling and career planning. Content, processes and strategies, information systems and career guidance services.

EDUC 673 Guidance Testing (3)
Group testing; analysis and interpretation of achievement, aptitude, interest and personality tests; synthesizing case data and educational, vocational and general counseling report-writing.

Education
Master of Arts

Course Listing

Special Education

EDUC 674 Micro-Counseling (3)
Presentation, demonstration and practice, in the necessary skills to effectively conduct complete counseling interviews. Prerequisite: Permission of the Instructor.

EDUC 676 Counseling Theory and Practice (3)
A survey of major counseling theories and techniques.

EDUC 609 Supervision of Special Education (1-3)
Administrative and supervisory procedures of special education programs for exceptional children.

EDUC 651 Advanced Problems in Language/Learning Disabilities (3)
Literature and research relating to psychological, sociological and educational problems in language/learning disabilities. Prerequisite: permission of instructor.

EDUC 652 Assessment of Language/Learning Disabilities (3)
Developing knowledge, skills and testing strategies needed to evaluate and diagnose students with language/learning disabilities. Prerequisite: EDUC 451, 452 or permission of instructor.

EDUC 656 Advanced Problems in Education of the Mentally Retarded (3)
Psychological, sociological and educational problems of the mentally retarded.

EDUC 657 Etiology of the Mentally Retarded (3)
The mentally retarded child and his problems. Diagnostic, social, psychological and educational problems manifested by the mentally retarded child.

EDUC 658 Educational Planning for Children with Language/Learning Disabilities (3)
Organizational alternatives and methodologies employed by a school district, school or resource teacher. Prerequisite: permission of instructor.

EDUC 675 Classroom Management/Regular and Exceptional Students (3)
Using the principles of behavior modification, the course in classroom management assists teachers of the regular and exceptional student to arrange the learning and behavior environment so that children will learn in the most efficient and effective manner.

Education
Master of Arts

Course Listing

Early Childhood

EDUC 610 Environmental Factors in Early Childhood Education (3)
Analysis of theory and issues relating environmental factors in early childhood to cognitive competence, socialization and achievement.

EDUC 611 Early Childhood Education: Curricula, Procedure, and Materials (3)
Development of curricula, materials and methods for preschool and kindergarten programs systematically derived from diverse theoretical and philosophical positions.

EDUC 612 Cognitive Education of the Young Child (3)
Consideration of education programs for young children which focus on enhancing cognitive development, with emphasis on those of Montessori and Piaget.

EDUC 613 Early Childhood Education: Theory and Research (3)
Review of several major theories and research emphases in early childhood education and psychology from an historical and evolving perspective.

EDUC 614 Issues in Cognitive Development (3)
Analysis of theory related to development of perceptual and conceptual skills; verbal mediation and other cognitive functions.

EDUC 629 Language Development and Acquisition (3)
Theories of psycholinguistics and sociolinguistics applied to the acquisition of one or more languages in early childhood and school learning.

EDUC 643 Selected Teaching Strategies in Early Childhood Education (3)
Systematic development of programs for young children based on diverse philosophical-theoretical positions.

Reading

EDUC 617 Organization of Reading Programs (3)
Alternatives for organizing, administering and evaluating a reading program in a school district (grades K-12) or individual school. Prerequisite: one undergraduate reading course or permission of instructor.

EDUC 618 Advanced Problems in Reading (3)
Cognitive processes and psycholinguistic models related to reading. Prerequisite: 2 graduate reading courses or permission of instructor.

EDUC 619 Materials, Methods and Media in Reading (3)
Programs and other reading materials. Comparison of methods used in the teaching of reading. Prerequisite: one undergraduate reading course or permission of instructor.

Education
Master of Arts

Course Listing

Educational Foundations

EDUC 620 Diagnosis and Remediation of Reading Difficulties (3)
Testing strategies needed to evaluate and diagnose students with reading difficulties. Prerequisite: one undergraduate reading course or permission of instructor.

EDUC 626 Analysis and Selection of Literature (3)
Literature in the reading program. Emphasizes recent research in literature and related trends in curriculum in the elementary and secondary school.

EDUC 622 Education of the Disadvantaged Child (3)
Complex nature of the disadvantaged child from an educational, political and psychosocial point of view. Techniques and activities for classroom use.

EDUC 623 Philosophy of Art Education (3)
Informal analysis of basic concepts and arguments related to the concerns of the contemporary teacher of art and students of art education.

EDUC 644 Advanced Educational Psychology (3)
Perception, learning and memory processes. Problems of school learning including social and personality factors, evaluation, classroom organization and management.

EDUC 647 Human Growth and Development: Socialization and Personality Development (3)
Achievement motivation, aggression, discipline, sex identification, moral development, peer relations, adult-child interaction, social-class and ethnic differences. Prerequisite: introduction to psychology or educational psychology.

EDUC 680 Research Design in Education and the Social Sciences (3)
Research planning, evaluation of research, sampling, surveys, measurement, research tools, experimental and quasi-experimental designs, historical studies, data analysis and reporting research.

EDUC 681 Statistics (3)
Descriptive and inferential statistics as applied to education.

EDUC 690 Philosophy of Education (3)
Analysis of fundamental educational ideas related to teaching and administration in terms of assumptions with respect to the nature of knowledge, value, man and democracy.

Research

EDUC 698 Master's (1-6)
To meet the research requirement in the master's degree program.

Geology
Master of Science

Master of Science

The program for the Master of Science in Geology requires a minimum of 24 semester credit hours of graduate-level coursework in geology and supporting or ancillary fields, and 6 semester credit hours of research that result in a master's thesis. A satisfactory score, as determined by the Department of Geology, must be obtained in a qualifying examination such as the advanced geology examination of the Graduate Record Examination, or an equivalent examination given by the department of Geology.

When students enroll in the program, they will be assigned an advisor from the Department of Geology, who will work with them to develop a preliminary program of study and thesis research. Upon satisfactory completion of at least 9 semester credit hours of coursework and obtaining a satisfactory score on the qualifying examination, a student will be admitted to candidacy for the master's degree. At that time, a graduate committee will be appointed, ordinarily with the advisor as chairperson, in accord with current regulations for the conduct of graduate education. After the committee reviews the student's program and proposed thesis research, it will approve a degree plan and thesis topic.

Coursework for the MS in Geology shall include GEOL 655 and at least one advanced course in petrology, stratigraphy, and structural/tectonic geology, along with a combination of courses that support the student's main area of interest and thesis research. Students are expected to have completed a standard undergraduate curriculum that includes the courses required for an undergraduate degree in geology at U. T. Permian Basin, as set forth in this catalog. Students who lack any of these courses are required to complete them in addition to the minimum of 24 semester credit hours of graduate-level coursework needed for the degree.

Candidates for the Master of Science degree in Geology must complete an acceptable thesis prepared according to the guidelines used by U. T. Permian Basin, and written in standard geologic style as outlined in the American Geological Institute's "Guide to Geowriting" and the U.S. Geological Survey's "Suggestions to Authors" (5th and 6th editions). The thesis must be defended in an oral examination.

Geology
Master of Science

Course Listing

GEOL 603 Advanced Geomorphology (3)
Origin and evolution of relief features of the earth, with particular reference to their application in the interpretation of structure, stratigraphy and geologic history of an area.

GEOL 605 Advanced Structural Geology and Tectonics (3)
Concepts and principles of structural geology and tectonics, with emphasis on physical factors responsible for the deformation of the earth's crust, and the results of the deformation through geologic time.

GEOL 606 Topics in Structural Geology (3)
Critical review of modern developments in structural geology.

GEOL 607 Advanced Stratigraphy (3)
Concepts and principles of naming and correlating stratigraphic units with emphasis on major elements of local, regional and North-American stratigraphy.

GEOL 608 Topics in Paleontology (3)
Major trends and processes in the evolution of life through geologic time. Interrelationships of biological and physical processes in earth history. Application of paleontology to current problems in geology. Critical review of modern developments in paleonotology.

GEOL 611 Carbonate Depositional Systems (3)
Study of the origin, textures, distribution patterns and alteration of recent and ancient carbonate sediments. Emphasis on the chemistry of formation and diagenesis of carbonates.

GEOL 614 Clastic Depositional Systems (3)
Study of depositional processes, physiographic and environmental characteristics, and facies types and relationships of fluvial, deltaic, barrier-bar-strand-plain, lagoon-bay-estuary, shelf-abyssal, eolian, lacustrine, and alluvial fan depositional systems and their application to the analysis of past stratigraphic systems.

GEOL 625 Seismic Data Processing (3)
Wave propagation theory, information theory, migration algorithm, seismic modeling and recent technologies used in seismic data acquisition and processing.

Geology
Master of Science

Course Listing

GEOL 627 Exploration Geophysics I - Seismic Principles (3)
Definitions of elastic constants; types of seismic waves; seismic recorders; reflection and refraction. Electronic data processing. Special seismic procedures.

GEOL 628 Exploration Geophysics II - Seismic Stratigraphy (3)
Application of seismic data in stratigraphic interpretation; seismic facies analysis; and hydrocarbon indicators.

GEOL 629 Exploration Geophysics III - Gravity and Magnetic Methods (3)
Gravity and magnetic prospecting methods as applied to geophysical investigations of the crust. Physical principles; instrumentation; field techniques and data reduction. Geological interpretation and application of these data to the exploration for mineral resources.

GEOL 633 Igneous Petrology and Petrography (3)
Study of the origin of magmas and their evolution with emphasis on tectonic and chemical controls. Textures, structures and associations of igneous rocks.

GEOL 634 Sedimentary Petrology and Petrography (3)
Description, classification and genesis of sedimentary rocks.

GEOL 635 Metamorphic Petrology and Petrography (3)
Physical and chemical processes during metamorphism. Phase diagrams. Metamorphic facies and metamorphic stages.

GEOL 636 Isotope Geology (3)
Application of isotopic abundance measurements to the origin of the elements, the solar system and rock systems. Age-dating procedures.

GEOL 638 Structural Petrology (3)
Mechanisms of rock deformation. Field procedures, universal stage methods, and data analysis and interpretation.

GEOL 639 Advanced Mineralogy (3)
Optical mineralogy, X-ray and chemical properties of rock-forming minerals.

GEOL 640 Mineral Resource Economics (3)
Economics of mineral resources; supply and demand; international trade; national mineral policy; conservation; environmental concerns and costs; and surveys of individual commodities including oil and natural gas.

Geology
Master of Science

Course Listing

GEOL 644 Advanced Ore Deposits (3)
Detailed study of the geochemical controls, petrography and field relationships of selected types of ore deposits.

GEOL 646 Advanced Groundwater Hydrology (3)
Principles of occurrence and movement of water beneath the earth's surface, and influence of various geologic situations upon its behavior. Factors applying to estimates of supply. Engineering aspects of ground water.

GEOL 647 Advanced Subsurface Methods (3)
Systematic and accurate acquisition, evaluation and interpretation of subsurface data as applied in the search for oil and mineral deposits.

GEOL 648 Advanced Petroleum Geology (3)
Advanced studies in petroleum exploration. Porosity and permeability as related to lithology and hydrodynamics of fluid flow. Stratigraphic and structural traps; regional trends and basin analysis; the origin of oil; log interpretation; and geophysical exploration.

GEOL 652 Remote Sensing and Interpretation (3)
Techniques of remote sensing, including conventional photography, visible and near-visible (multispectral), thermal-infared, microwave, radar imagery and non-image data. Image processing and enhancement. The geological interpretation of remotely sensed data will be emphasized.

GEOL 655 Thermodynamics of Geologic Processes (3)
Thermodynamics applied to problems of igneous, sedimentary and metamorphic petrology.

GEOL 658 Advanced Geochemistry (3)
Advanced studies of the geochemistry of igneous, sedimentary and metamorphic rocks, as well as the distribution of trace elements in diverse environments.

*All courses have the following prerequisites: 1) graduate standing and 2) permission of the instructor.

History
Master of Arts

Master of Arts **History**

The Master of Arts program in history accommodates a wide range of student aspirations, both professional and personal. With strong emphasis on the literature of history, research techniques and writing skills, graduate study in history will benefit teachers, museum and archives personnel, prospective candidates for Ph.D. degrees in history, and college graduates wishing to pursue the subject for intellectual enrichment.

Within the requirements for the Master of Arts degree in history, considerable individualization of programs is possible. The particular strengths of the curriculum are in Early America, Western America, Twentieth Century America, Foreign Relations, American Business History, and Latin American History.

Candidates for the Master of Arts program in History must complete 36 credits of graduate work. Candidates who have not completed at least 18 undergraduate semester credits in history will be required to enroll in additional courses to complete their preparation for graduate work.

Students may specialize in either United States or Latin American history. They may choose between the thesis option and the non-thesis option, though the thesis option is limited to United States history.

Students who elect to write a thesis will complete: 1) 21 hours in United States history, including at least 2 reading courses and 1 research course at the 600-level. 2) At least 6 credits in Latin American history.* 3) 3 additional credits, in history or a related discipline. 4) Six hours upon acceptance of a thesis.

Students who elect the non-thesis option in United States history will complete: 1) 21 credit hours in United States history, including at least 2 reading and 2 research courses at the 600-level. 2) At least 6 credits in Latin American history.* 3) 3 to 9 additional hours in history. 4) A maximum of 6 credits in a related field.

Students who elect the non-thesis option in Latin American history will complete: 1) At least 12 hours in Latin American history, including at least 1 reading and 1 research course at the 600-level. 2) At least 15 additional hours in history, including at least 1 reading and 1 research course at the 600-level. 3) A maximum of 9 credits in related fields; Spanish is recommended.

History
Master of Arts

History

MA candidates must pass an oral examination. There is no general foreign language requirement for the master's degree in history. However, when mastery of a language is requisite to purposeful study, the demonstration of language skills may be required. For example, candidates in Latin American history must demonstrate the ability to comprehend written Spanish with reasonable accuracy and speed.

*Six hours of non-United States history may be considered in the context of individual graduate study programs.

Course Listing

HIST 611 Modern Mexico (3)
Historical literature relating to major developments and problems of modern Mexico.

HIST 614 Latin American (3)
Historical literature relating to major developments and problems of Latin America, including modern Mexico, modern South America and colonial Latin America.

HIST 637 Studies Through World Travel (3) *(title may vary)*
Intensive classroom preparation followed by guided travel to countries and sites of outstanding historical importance.

HIST 638 Research in World History (3)
Methodology and tools for historical research and directed research on special topics in world history.

HIST 639 Studies in World History (3) *(title may vary)*
Reading, research and discussion of selected topics in world history.

HIST 641 Early America (3)
Historical literature on colonial and revolutionary periods of American history.

HIST 647 Twentieth Century America (3)
Examination of historical literature on special topics covering major developments and problems in recent United States history.

HIST 656 Western America (3)
Historical literature relating to major developments and problems in Western history.

History
Master of Arts

Course Listing

HIST 661 American Foreign Relations (3)
Examination of historical literature on special topics which cover major developments and problems in United States foreign relations.

HIST 668 American Business History (3)
Study of major changes in American business during the twentieth century through analysis of specific industries and case studies.

HIST 677 Studies Through American Travel (3) *(title may vary)*
Intensive classroom preparation followed by guided travel to sites of outstanding historical importance in the United States.

HIST 678 Research in American History (3)
Methodology and tools for historical research and directed research on special topics in American history.

HIST 679 Studies in American History (3) *(title may vary)*
Reading, research and discussion on selected topics in American history.

Life Science
Master of Science

Life Science

Master of Science

The Master of Science program in Life Science includes microbiology and plant and animal science and emphasizes a unified view of life science. The program may be used by those intending a career in some area of life science and by those desiring a stronger background for teaching. In consultation with faculty, students will prepare a plan of study. The plan of study includes selected courses outside the major to support the program and meet special needs and interests of students.

To be admitted to the program, students must have 16 credits of biology, 8 credits of chemistry and 3 credits of mathematics at the undergraduate level. Depending upon the student's undergraduate program and career goals, the advisory committee may recommend completion of certain undergraduate courses without credit toward the master's degree.

Approximately 15-18 credits of the minimum 30 credits required for the Master of Science degree will be in life science and approximately 9-12 credits will be in supporting areas of study. The remaining 3-6 credits will be in independent study. A student intending to pursue a doctorate degree or research career will complete a thesis in which an original investigation is described and defended. Other students may complete a master's project in which an original contribution is made in a nonresearch area. The thesis or project must be an original work and must be defended orally before the advisory committee and other appropriate faculty.

Individualized instruction is used extensively in each student's program. This feature should greatly aid students whose commitments do not always permit regular class attendance. Laboratory facilities are ideally suited for individualized instruction, and the faculty of Life Science is committed to such instruction whenever appropriate.

Course Listing

LFSC 601 Studies in Virology (3)
Analysis and interpretation of modern studies of viral structure, replication and pathogenesis. Prerequisites: LFSC 320, 440 or equivalent. Offered alternate years.

LFSC 623 Immunology (3)
Analysis and interpretations of studies of mammalian mechanisms of defense against infectious diseases and cancer. Prerequisites: LFSC 300, 320, 440, or equivalent. Offered alternate years.

LFSC 630 Plant Physiology and Biochemistry (3)
Techniques, principles and analysis of problems in plant biochemistry and physiology. Prerequisite: LFSC 320 or equivalent.

Life Science
Master of Science

Course Listing

LFSC 640 Molecular Genetics (3)
Studies of gene transfer, mapping, expression and control mechanisms. Prerequisite: LFSC 300, 301, and 320 or equivalent.

LFSC 642 Evolutionary Ecology (3)
The evolution of ecological parameters emphasizing population and community parameters. Prerequisite: LFSC 472 or equivalent.

LFSC 650 Advances in Animal Physiology (3)
Analysis and interpretation of studies in the laboratory and literature. Prerequisites: LFSC 320 and 452 or equivalent.

Literature
Master of Arts

Literature

Master of Arts

The purposes of the Master of Arts program in Literature are at least fivefold: to train students to work with the materials of literature with scholarly competence and maturity; prepare students to teach literature in schools and colleges; provide additional professional training for English teachers currently employed in elementary and secondary schools; prepare students for such nonteaching vocations as publishing, advertising, editing, civil service and management; and offer sound professional training on the master's level for students who intend to pursue a doctorate in American and British literature or American studies elsewhere.

Requirements for admission include a minimum of 24 undergraduate semester credits in English, although exceptions may occasionally be made for exceptionally well qualified students whose undergraduate work was in related areas. Often students will be required to complete certain undergraduate courses during their first semester in the graduate program.

Requirements for the MA in literature include the following:

1. Successful completion, in the earliest possible semester of enrollment of Introduction to Graduate Studies, LIT 600 and The English Language, LIT 671 (provided the student has not completed LIT 371 or its equivalent as an undergraduate).

2. A minimum of 30 semester credits at the 400 or 600 level, 6 of which may be in a field other than literature. The required degree plan must be worked out in consultation with the advisor, and will be based on the student's interests and capabilities as well as on the projected availability of the courses.

3. Completion of either a master's thesis or a comprehensive examination. The student who elects to write the thesis must register for 6 credits of Thesis Research, LIT 699. If students elect the second option, the written examination, they are required to enroll in 6 credits of Directed Reading, LIT 690. The candidate for the MA in Literature thus completes a minimum of 36 credits.

4. An oral examination is required, in addition to the thesis or the written comprehensive examination. For students writing a thesis, the examination will include, but not be limited to, a thesis defense. For students doing directed reading, the oral examination will cover the entire range of coursework, reading and a general knowledge of literary scholarship.

Literature
Master of Arts

Course Listing

LIT 600 Introduction to Graduate Studies (3)
Methods of research, bibliographic techniques, textual editing, serials and book printing, literary journals, library journals, Library of Congress cataloging, criticism and teaching.

LIT 601 American Literature to 1800 (3)
Bradford, Bradstreet, Cotton Mather, Taylor, Edwards, Franklin. Content and format of the class varies. Required reading list.

LIT 603 American Literature, 20th Century (3)
Frost, Pound, Eliot, Stevens, Williams, Hemingway, Fitzgerald, Faulkner, Steinbeck, O'Neill, Tennessee Williams, Lowell, Bellow and Mailer. Class format varies. Required reading list.

LIT 621 British Literature to 1660 (3)
Chaucer, English Rennaissance humanists, the Elizabethan lyric, Spencer, Shakespeare, Jacobean and Caroline drama, classical lyrists, the metaphysicals. Required reading list.

LIT 622 British Literature, 1600 -1800 (3)
Milton, Dryden, Restoration literature, 18th century poetry, fiction, drama and criticism. Required reading list.

LIT 623 British Literature, 19th Century (3)
Major Romantic and Victorian poets, novelists and essayists. Required reading list.

LIT 624 British Literature, 20th Century (3)
Conrad, Joyce, Lawrence, Forster, Woolf, Shaw, O'Casey, and selected poets. Required reading list.

LIT 643 Literature of the Southwest (3)
Contribution of the Southwest to the American literary tradition. General prose works and representative poetry and fiction.

LIT 659 Special Studies in Literature (3)
Selected works of several authors organized according to historical era, genre or theme. Content varies.

LIT 661 Literary Criticism (3)
Theories and practice of criticism; major attention given to modern critical approaches.

Literature
Master of Arts

Course Listing

LIT 661 Literary Criticism (3)
Theories and practice of criticism; major attention given to modern critical approaches.

LIT 669 Studies in a Major Author (3)
Works of a major American or British author.

LIT 671 The English Language (3)
Conceptual linguistics and curriculum models applied to the teaching of communication skills in high school and college.

LIT 690 Directed Reading (3)
A required reading list and faculty guidance are provided for students electing the comprehensive examination rather than the thesis.

Although a master's degree is not offered in Spanish, the courses below may count as an elective in the master's degree program in literature, education, history or other suitable fields.

Spanish

SPAN 631 Novelists of Post-War Spain (3)
Historical and political background, social and literary development in the Peninsula after the Spanish Civil War of 1936-39, emphasizing novelists who appear from the 1940's onward: Cela, Laforet, Quiroga, Delibes, Matute, (Juan) Goytisola, Sanchez Ferlosio, Martin Santos and others.

SPAN 633 The Contemporary Spanish-American Novel in Translation (3)
A study of the most important Spanish-American novelists. Five or six novels are usually read in this course.

SPAN 637 Contemporary Hispanic Cultures (3)
A study of different aspects of contemporary culture in Spain, Spanish America and among Spanish-speaking minorities, including areas as varied as religion, economics, literature and politics.

SPAN 639 Applied Spanish Linguistics (3)
Introduction to modern techniques of grammatical instruction, nature and use of instructional materials, development of language skills in students, contextual presentation, structural language drills, and oral and syntactical problems.

Management
Master of Business Administration

Master of Business Administration

The Master in Business Administration (MBA) program is open to all students holding baccalaureate degrees from accredited colleges or universities and who meet the following provisions: satisfactory performance during the last 2 undergraduate years (or other evidence predicting success in graduate study), and a satisfactory score on the Graduate Management Admission Test (GMAT) or, with prior approval of the Director of the MBA Program, the Graduate Record Examination (GRE). Application should be directed to the Office of Admissions.

Students without a management background must demonstrate their knowledge in the basic fields of business by completing up to 24 semester credits of leveling coursework in the foundation disciplines which include accounting, business law, statistics, economics, finance, basic administration, marketing and computer programming. Students may submit evidence of job experiences, prior coursework or self-study as substitutions for related leveling courses. Written examinations may be required.

The MBA program is designed primarily as a professional program rather than a preparation program for doctoral study. Both research and nonresearch options are available in the program. Students planning to pursue doctoral study or having an interest in research should select the research option. Students choosing the nonresearch option must complete a minimum of 36 semester credits of prescribed study, exclusive of the 24 semester credits of leveling coursework. Students choosing the research option must complete either 30 semester credits of prescribed study plus a thesis, or 33 semester credits of prescribed study plus a research problem.

The thesis must deal with a topic of generalized concern to the profession, be scholarly in its orientation, demonstrate the student's understanding of and ability to use sophisticated research techniques, and show promise of a contribution to knowledge that could be worthy of publication in a scholarly or professional journal. Students will arrange with their graduate committee to sit for an oral examination of their thesis.

The research problem should deal with a practical problem of concern to the student. It should follow recognized research procedures but does not require the level of sophistication of thesis research. The findings do not necessarily need to be of such import as to merit publication.

Management
Master of Business Administration

Admission

The requirements for admission to the MBA program are the same as the general university admission requirements with the following exceptions:

1. The Graduate Management Admission Test (GMAT) is a nationally recognized test designed specifically for students preparing to pursue the MBA degree. Students preparing to be admitted to the MBA program are encouraged to take the GMAT test after consultation with the Director of the MBA Program. The Graduate Record Exam (GRE) may be used in lieu of the GMAT test if the Director of the MBA Program approves the substitution.

2. The GMAT score is converted to an entrance status score according to the following formula:

   GPA x 200 + GMAT = Entrance Status Score

3. A student is eligible to be formally admitted to the MBA program after both leveling courses and either the GMAT or the GRE exam are successfully completed. With the prior approval of the Director of the MBA program, the Director of Graduate Studies notifies students of their acceptance status.

4. The GMAT entrance status score or the GRE score will be used to classify the student.

Regular Standing

GMAT Entrance status score at least 1120

GRE Total Quantitative - Verbal - Analytical score at least 1500

GRE Total Quantitative -Verbal score at least 1000
(if only the Quantitative - Verbal exam is taken)

Provisional Standing

GMAT Entrance status score at least 1000 but less than 1120

GRE Total Quantitative - Verbal - Analytical score at least 1200 but less than 1500

Management
Masters of Business Administration

MBA Program

Pre-Professional

GRE Total Quantitative - Verbal score at least 800 but less than 1000
(if only the Quantitative - Verbal exam is taken)

Students granted "provisional standing" status will be granted regular standing status upon successful completion of a minimum of 9 semester credit hours of graduate coursework with a grade of **B** or better in **each** course taken.

Undergraduate to Qualify

GMAT Entrance status score less than 1000

GRE Total Quantitative - Verbal - Analytical less than 1200

GRE Total Quantitative - Verbal less than 800
(if only the Quantitative - Verbal exam is taken)

Students admitted in the "undergraduate to qualify" status will not be allowed to take graduate level courses (600-level courses) until **at least** 12 semester credit hours of undergraduate courses in business have been completed with a grade of **B** or better in **each** course. The specific courses to be taken will be jointly selected by the student and his advisor. They may be applied toward making up any prerequisite deficiencies in the student's undergraduate preparation for graduate work.

Upon satisfactory completion of the coursework, the student will be reviewed for possible regular standing. If he is advanced to regular standing he can begin work toward the degree.

Grades. MBA students will not be given credit for courses taken for graduate credit when the letter grade earned is less than **C.** In addition, an MBA student may earn no more than two **C** grades. A degree candidate is required to maintain an overall average of **B** throughout his program of study.

Management
Masters of Business Administration

MBA Program

Pre-Professional 24 Hours

ACCT 600	Accounting Concepts	3
BLAW 600	Business Law	3
DSCI 600	Advanced Statistics for Managers	3
ECON 600	Economic Analysis	3
FIN 600	Concepts of Business Finance	3
MNGT 600	Basic Administration	3
MRKT 600	The Marketing Process	3
CPSC 600	Computers in Management and Science	3

**Each graduate business course in the MBA core must be preceded by the appropriate undergraduate preparation or the appropriate professional 600 level course listed above.

MBA Core 27 Hours

ACCT 601	Profit Planning and Control	3
ACCT 611	Information Systems Management	3
ECON 602	Forecasting Business Conditions	3
FIN 620	Financial Management: Theory & Techniques	3
DSCI 603	Analytical Models for Decision Making	3
MNGT 660	Organization Theory (or MNGT 612)	3
MNGT 661	Business Research	3
MNFT 666	Management Policy and Integration	3
MRKT 610	Marketing Strategy and Theory	3

Concentration 9 Hours

Students select 9 elective hours of work in an area of business concentration. Only two 400-level courses may be used in the concentration, and then only with the advance approval of the student's advisor.

Course Listing

Accounting

ACCT 600 Accounting Concepts (3)
Concepts and principles in the recording, classifying and summarizing of financial transactions of a business.

ACCT 601 Profit Planning and Control (3)
Integrates functional and operational aspects of organizations through the master budget concept. Prerequisite: demonstrate knowledge of managerial and cost accounting.

AC T 604 Tax Planning (3)
Methodology used in tax research and in tax planning using the adversary approach.

Management
Masters of Business Administration

Course Listing

Accounting

ACCT 611 Information Systems Management (3)
Methods and problem resolution in developing and managing company-wide information systems.

Business Law

BLAW 600 Business Law (3)
General business law, including contracts, sales, commercial paper, secured transaction, agency, corporations and partnerships.

Although the master's degree is not offered in Computer Science, the following course may be taken for elective graduate credit in master's degree programs in related fields.

Computer Science

CPSC 600 Computers in Management and Science (3)
Fundamental interactive programming and problem analysis using BASIC. Batch processing of more complex problems using programs like SPSS and SAS.

Decision Science

DSCI 603 Analytical Models for Decision-Making (3)
Deterministic linear programming, networks and dynamic programming. Emphasizes formation and utilization of programming computer packages.

Economics

ECON 600 Economic Analysis (3)
Economic efficiency and the determinants of the major economic aggregates such as growth, employment and gross national product.

ECON 602 Forecasting Business Conditions (3)
Elements and evaluation of principle forecasts used by business and government. Cases based on forecasts by the President's Council of Economic Advisors. Prerequisite: ECON 600 or 6 credits of undergraduate economics.

ECON 610 Free Enterprise and the Public Interest (3)
Perceptions of business, business response to community, state and national issues, and press reports of business attitudes toward free enterprise.

Management
Masters of Business Administration

Course Listing

Finance

FIN 600 Concepts of Business Finance (3)
Managerial use and application of concepts and principles of the finance function of a business.

FIN 610 Free Enterprise and the Public Interest (3)
Perceptions of business, business response to community, state and national issues, press reports of business and attitudes toward free enterprise.

FIN 620 Financial Management: Theory and Techniques (3)
Investment, financing and dividend decisions of firms seeking to maximize shareholder wealth. Analytical techniques, economic and behavioral theories and financial environment. Prerequisite: permission of instructor.

FIN 621 Business Financial Policy (3)
Problems of business finance from a decision-making, internal, problem-solving viewpoint.

FIN 622 Investment Policy and Environment (3)
Fixed-capital investment decisions under risk. Management of packages of risky assets. Yield and liquidity cash management.

Management

MNGT 600 Basic Administration (3)
Synthesis of traditional and behavioral approaches to studying management. Management process, management history and organizational behavior.

MNGT 610 Organization Dynamics Workshop (3)
Impact of organization structures and processes on the performance of organizational members. Role playing, simulations and case studies.

MNGT 612 Human Resource Management (3)
Manpower planning and development, organizational climate and the provision of personnel services will be investigated.

MNGT 615 Organization Development and Change (3)
Problems in introducing change in organizations, theory and methods of intervention in organization development.

MNGT 660 Organization Theory (3)
Internal organization structure and executive roles and functions in the business enterprise and other goal-directed institutions.

Management
Masters of Business Administration

Course Listing

Management

MNGT 661 Business Research Management (3)
Emphasizes concepts and data bases for effective management of business research functions/activities. Prerequisite: DSCI 600 or equivalent.

MNGT 666 Management Strategy/Policy (3)
Development and implementation of knowledge from mulitple disciplines and intergration of viewpoints of different functions of an organization. Case evaluation and discussion are stressed. Prerequisite: student must be in the last two semesters of MBA program or instructor's approval.

Marketing

MRKT 600 The Marketing Process (3)
Marketing process and its underlying concepts. Information needed and the incorporation of marketing decisions into the management function.

MRKT 610 Marketing Strategy and Theory (3)
Macro- and micro-marketing systems and approaches to marketing strategy and theory. Prerequisite: admission to MBA core program.

MRKT 612 Consumer Decision Processes (3)
Information flows between buyer and seller, informational properties of demand stimulation strategies from the firm, consumer and society viewpoints. Prerequisite: MRKT 610.

MRKT 613 Quantitative Analysis for Marketing Decisions (3)
Analytic quantitative models of aspects of the firm's marketing environment and models of marketing decision problems and their use as decision base. Same as DSCI 613. Prerequisites: MRKT 610, DSCI 603.

MRKT 614 Seminar in Physical Distribution Management (3)
Integrates business logistics/physical distribution concepts with fields of production, marketing, accounting and transportation. Involves applied mathematics, organizational behavior, resources and economics. Prerequisite: MRKT 610.

MRKT 615 Seminar in Marketing Problems (3)
Product assortment and development, pricing, packaging, branding and sales forecasting. Coordination of these decisions with other decision areas. Prerequisite: MRKT 610.

MRKT 621 Oil and Gas Marketing (3)
Analysis of the physical and organizational structure of oil and gas distribution within the context of case studies of both major and independent oil companies. Prerequisite: MRKT 600.

Physical Education
Master of Arts

Physical Education

Master of Arts

Students studying for the Master of Arts degree in Physical Education may emphasize one of the 3 following areas of specialization: exercise physiology-PHED 660, 661 and 662, or 663; psychology of movement-PHED 620, 621 and 622; or teaching and coaching behavior-PHED 680, 681 and 683; and may select either the thesis or nonthesis option with the approval of their advisor.

Students who select the thesis option will complete a minimum of 24 credits of coursework plus the thesis. Those who select the nonthesis option will complete a minimum of 36 credits which include a 3 credit research project. It is expected that students who desire to study beyond the master's degree will take the thesis option; whereas, those who plan to cease formal study with the master's degree will follow the nonthesis option.

The additional course credits required for the nonthesis degree plan should provide a greater breadth of systematic learning experiences for the student. Therefore, those who select the nonthesis option must complete at least 9 credits in one of the 3 specialization areas (exercise physiology, psychology of movement and teaching and coaching behavior) and at least 3 credits from each of the other 2 areas.

The thesis option requires at least 9 credits in one of the 3 areas of emphasis. All candidates for the MA in physical education must complete Strategies for Inquiry in Physical Education (PHED 601), or its equivalent (with consent of the advisor).

Students who desire to major in Physical Education for the MA degree should possess a bachelor's degree with a major or minor in physical education. Provision is made for the non-physical education major (or minor) who has a bachelor's degree in another field to enter the graduate program in Physical Education upon the completion of the following prerequisite (leveling) courses or their equivalents: Physiology of Exercise (PHED 350), Kinesiology (PHED 340), Measurement of Physical Performance and Achievement (PHED 400), and either Motor Learning and Performance (PHED 430), Psychology of Sport and Physical Activity (PHED 420), or Role of Sports in American Society (PHED 440).

Those who major in Physical Education for a MA degree may include a maximum of 6 credit hours of 400-level courses in physical education in their graduate coursework. Students who take 400-level courses as prerequisites (leveling) may not include 6 of those credits in their graduate degree program.

It is not necessary that the student have teaching experience or possess a teaching certificate to qualify for the master's degree program.

Physical Education
Master of Arts

Course Listing

PHED 601 Strategies for Inquiry in Physical Education (3)
Research techniques and inferential statistical procedures appropriate to the research process in physical education. Prerequisite: MATH 601 or equivalent.

PHED 620 Psychosocial Analysis of Sport and Physical Activity (3)
Concepts and research methodology in social psychological study of sport and physical activity. Selected theories of sport involvement applied to sport and physical activity analysis.

PHED 621 Analysis of Motor Skills Acquisition (3)
Concepts and research methodology in human motor performances. Selected learning theories are used in analyzing both skill acquisition and instructional processes.

PHED 622 Psychology of Coaching (3)
Identification and analysis of psychological techniques and strategies which may be used by the coach/athlete to improve performance and increase enjoyment of participation in physical activity.

PHED 641 Biomechanics (3)
Analysis and quantification of human movement. Nature of linear and angular kinematics and kinetics, forces, moments and couples, friction aerodynamics, ballistics and sports techniques.

PHED 660 Advanced Exercise Physiology (3)
Functioning of the human body and responses and adaptations of the different systems as a result of physical exercise. Topics include muscle physiology, the cardiorespiratory system, neural control of human movement, nutrition, athletic performance, physiological applications of physical training and preventive health care. Laboratory experiences included.

PHED 661 Exercise Physiology Laboratory Methods-Procedures (3)
Practical applications of the different principles that govern the responses and adaptations of the human body to physical exercise. Laboratory equipment used to collect data and analyze results.

Physical Education
Master of Arts

Course Listing

PHED 662 Scientific Principles of Athletic Conditioning (3)
Application of scientific principles of exercise physiology in conditioning and training aspects of athletes in various sports. Relative effectiveness of different training methods. Effects of strength, speed, endurance, power, agility, skill, diet, drugs, altitude, warm-up and other influential factors on athletic performance.

PHED 663 Methods and Procedures for Coronary Heart Disease Risk Detection and Reduction (3)
A study of the leading risk factors which contribute to the development of coronary artery heart disease. Laboratory methods and procedures used in assessing the different risk factors including 12-lead, EKG-graded exercise stress testing. Implementation of programs aimed at risk reduction and prevention of heart disease.

PHED 680 Analysis of Teaching Behavior (3)
Observation, description, coding and analysis of teaching behavior in physical education.

PHED 681 Curriculum Development in Movement Activities (3)
Theoretical assumptions and principles of curriculum development applied to construction of curriculum project in physical education.

PHED 682 Movement Patterns of the Severely Disabled (3)
Identification of motor performance, capabilities and limitations of the physically disabled, wheelchair bound and the visually impaired; development of prescriptive analysis and assessment techniques - motor performance task analysis. Experiential motor activity planning and involvement.

PHED 683 Measurement for Evaluation in Physical Education (3)
The identification of testing and essential statistical procedures for evaluating knowledge, attitudes, skills and fitness.

Special Courses
Mathematics

Course Listing

MATH 601 Statistics for Researchers (3)
Statistical concepts emphasizing simple and multiple regression, hypothesis testing and analysis of variance.

Faculty

Faculty

Donald M. Allen, Associate Professor of Life Science.
BA, MA, PhD (1970), University of Oregon.

Terryl J. Anderson, Professor of Education.
BS, University of Colorado; MBA, EdD (1967), Indiana University.

J. Edwin Becht, Professor of Management.
BS, Southern Illinois University; MS, PhD (1951), University of Illinois.

James L. Colwell, Kathlyn Cosper Dunagan Professor in the Humanities.
BA, University of Denver; MA, University of Northern Colorado; MA, PhD (1961), Yale University.

Thomas L. Dynneson, Associate Professor of Education.
BS, MEd, Macalester College; PhD (1972), University of Colorado.

David M. Eggleston, Professor of Control Engineering (Professional Engineer).
BS, MS, PhD (1963), Mechanical Engineering
University of California-Berkeley.

Seyfollah Ehdaie, Associate Professor of Chemical Process Science.
BS, Tehran University; PhD (1978), Southampton University.

Linda S. Felts, Assistant Professor of Accountancy and Information Systems.
BBA, MBA, University of Texas-Permian Basin; DBA, Candidate, University of Colorado.

Daniel J. Flaherty, CPA, CIA, CMA, CCA, Professor of Accountancy and Information Systems.
BBA, Texas A&M University; MBA, Georgia Southern College; PhD (1973), Texas A&M University.

Kenneth Fletcher, Instructor in Finance.
BBA, Brigham Young University; MBA, University of Texas-Permian Basin; PhD Candidate, Texas Tech University.

John P. Frazee, Associate Professor of Literature.
BA, University of Colorado, Boulder; PhD (1979), University of California-Berkeley.

Faculty

Faculty

Florence H. Gardner, Assistant Professor of Life Science.
BS, Indiana University; PhD (1979), Baylor College of Medicine.

H. Warren Gardner, Associate Professor of History and Vice President of Academic Affairs.
BA, Sterling College; MA, Emporia State University; PhD (1969), University of Kansas.

Corbett Gaulden, Assistant Professor of Marketing, Director of Business Administration.
BS, Southeastern Louisiana University; MBA, Northeast Louisiana University; PhD (1980), Louisiana State University.

Robert Gerry, Associate Professor of Education.
BS, The University of California Los Angeles; MS, University of Southern California; PhD (1967), The University of Texas-Austin.

Joel Greenspoon, Professor of Psychology, Coordinator of Behavioral Science and Coordinator of the Center for Behavioral Analysis.
BS, University of Virginia; MA, University of Pennsylvania; PhD (1952), Indiana University.

Waylon D. Griffin, Associate Professor of Management.
BS, Florida State University, MBA, PhD (1972), University of Texas-Austin.

Douglas F. Hale, Associate Professor of Mathematics and Computer Science, Director of Science and Engineering Division and Director of Computer Services.
BS, MS, PhD (1969), Ohio State University.

Lois S. Hale, Associate Professor and Chairman of Physical Education, Director of Behavioral Science and Physical Education Division.
BS, University of Maine; MEd, PhD (1974), Temple University.

Paul E. Hodges, Associate Professor of Economics.
BA, MA, New Mexico State University; PhD (1974), Stanford University.

David R. Hopkins, Associate Professor of Physical Education.
BA, MAT, College of Wooster; PED (1976), Indiana University.

Faculty

Faculty

Thomas A. Hyde, Professor of Control Engineering (Professional Engineer).
BS, United States Naval Academy; MSEE, PhD (1977), University of Pennsylvania.

G. Peter Ienatsch, Associate Professor of Education.
BS, University of Wisconsin-Platteville; MS, Northern Illinois University, PhD (1973), University of Iowa.

Robert F. Ihinger, Professor of Education and Director of Graduate Studies.
BA, University of California-Riverside; MA, PhD (1970), Claremont Graduate School.

Patricio T. Jaramillo, Associate Professor of Education.
BS, University of Alburquerque; MEd, Texas Tech University; PhD (1975), Arizona State University.

Sean A. Kelleher, Associate Professor of Political Science.
BA, Tulane University; PhD (1973), Brown University.

Firooz Khosraviyani, Assistant Professor of Mathematics and Computer Science.
BS, MS, Tehran University; MS, PhD (1981) University College of Wales.

Clarence D. Kron, Professor of Education.
BS, Minot State College; MA, EdD (1966), Washington State University.

Edwin B. Kurtz, Professor and Chairman of Life Science.
BS, MS, University of Arizona; PhD (1952), California Institute of Technology.

Duane M. Leach, Professor of History and Political Science and President.
BA, MA, University of South Dakota; PhD (1964), University of Oklahoma.

Stan Y.C. Lee, Assistant Professor of Geophysics.
BS, MS, National Taiwan University; PhD (1984), Colorado School of Mines.

Craig L.G. Lister, Assistant Professor of Music.
BA, Washington University-St. Louis; MM, PhD (1979), University of North Carolina, Chapel Hill.

Faculty

Howard I. Lukens, Professor of Management.
BA, University of California-Berkeley; MAPA, George Washington University; MA (ED) Troy State University; MA (BA) University of Southern California; DBA (1974), George Washington University.

Stanley E. Marcus, Professor and Chairman of Art.
BA, New York University; MA, EdD (1972), Teachers College, Columbia University.

Alan E. Marks, Associate Professor of Psychology.
BA, Columbia University; PhD (1977), Duke University.

Don E. Miller, Associate Professor of Education.
BA, Roosevelt University; PhD (1973), Syracuse University.

Emilio Mutis-Duplat, Professor and Chairman of Geology.
BS, Universidad Nacional de Colombia en Bogota; MS, Texas A&M University; PhD (1972), University of Texas-Austin.

James A. Nickel, Professor of Mathematics and Chairman of Mathematics and Computer Science.
BA, Willamette University; MS, PhD (1957), Oregon State University.

Eugene A. Nini, Professor and Chairman of Accountancy and Information Systems.
BBA, Lamar University; MBA, University of Arkansas; PhD (1966) Louisiana State University.

Roger M. Olien, J. Conrad Dunagan Professor of History.
BA, St. Olaf College; PhD (1973), Brown University.

Ernest D. O'Neil, Professor of Education and Director of Education Division.
BS, St. Bonaventure University; MS, State University of New York at Albany; PhD (1974), University of Pittsburgh.

Faculty

Faculty

James N. Olson, Professor of Psychology and Chairman of Psychology.
BA, University of California-Santa Barbara; MA, PhD (1974), University of California-Los Angeles.

Genaro J. Perez, Associate Professor of Spanish.
BA, Louisiana State University; MA, PhD (1976), Tulane University.

Steven S. Powell, Instructor of Music.
BM, University of Michigan; MM, DM Candidate, Indiana University.

Pamela C. Price, Associate Professor of Art.
AB, Georgia State University; MFA (1970), University of Georgia.

R. Colbert Rhodes, Associate Professor of Sociology.
BA, University of California-Berkeley; MA, C Phil., PhD (1974), University of California-Los Angeles.

J. Michael Robinson, Associate Professor of Chemistry.
BS, MS, Louisiana Technological University; PhD (1973), Louisiana State University.

Robert N. Rothstein, Professor of Mass Communications and Education and Chairman of Communication.
BA, MA, PhD (1970), University of Colorado.

David A. Rowland, Professor of Petroleum Engineering (Professional Engineer).
Petroleum Engineer, Colorado School of Mines; MS, University of California-Berkeley; PhD (1965), Stanford University.

Frank N. Samponaro, Associate Professor of History.
BA, Yale University; MA, University of Texas-Austin; PhD (1974), State University of New York-Stonybrook.

Thomas E. Schaefer, Professor of Management.
BA, Santa Clara University; MA, Loyola University of Chicago; MBA, University of San Francisco; PhD (1963), Georgetown University.

Faculty

Munro Shintani, Professor of Special Education.
BS, Coe College; MA, PhD (1967), University of Iowa.

David R. Skinner, Associate Professor of Control Engineering (Professional Engineer).
MS (1976), Texas Tech University.

Laura A. Smith, Associate Professor of Education.
BS, MEd, PhD (1978), Wayne State University.

Spencer K. Thompson, Associate Professor of Psychology and Education.
BA, Brigham Young University; MA, PhD (1973), University of California-Los Angeles.

J. Tillapaugh, Associate Professor of History.
BS, MA, University of Oregon; PhD (1973), Northwestern University.

Clyde B. Vedder, Visiting Professor of Sociology and Criminal Justice.
BA, University of California-Berkeley; MA, PhD (1947), University of Southern California.

William A. Watts, Professor of Finance.
BA, MS, Western Illinois University; PhD (1966), University of Iowa.

Patricia Elliott Williams, Assistant Professor of Accountancy and Information Systems.
BA, Catawba College; MA, University of North Carolina; PhD, Louisiana State University; MBA (1977), North Texas State University.

Edward N. Willman, Associate Professor of Management.
BBA, MBA, PhD (1981), North Texas State University.

Daniel Robert Womochel, Associate Professor of Geology.
BS, Michigan State University; MS, PhD (1977), Texas Tech University.

Michael R. Yonan, Instructor of Finance.
BA, University of Texas-Austin; MS, Texas A & M University.

Part-Time Faculty

Part-Time Faculty

Bob S. Lewis, Lecturer in Mass Communications.
BA, Baylor University; MA (1966), University of Missouri.

Donna Thompson, Lecturer in Psychology.
BA, Michigan State; MA, PhD (1978), University of California-Los Angeles.

Eunice M. Barkes, Lecturer in Anthropology.
BS, Louisiana Tech University; BA, MA (1975), Texas Tech University.

U. T. Permian Basin
4901 East University Boulevard
Odessa, Texas 79762-8301

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