Southwest Texas State University

1977-78

the progressive university
with a proud past
# Graduate School Checklist

(See inside back cover for explanation of check list items)

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<th>WHAT TO DO</th>
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<th>WHEN TO DO IT/COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>File application for admission</td>
<td>Graduate Office</td>
<td>At least 30 days prior to the beginning of semester</td>
</tr>
<tr>
<td>Order 2 copies of all transcripts</td>
<td>All colleges attended</td>
<td>In time for transcripts to arrive at least 30 days prior to beginning of semester</td>
</tr>
<tr>
<td>Take the GRE (Graduate Record Exam)</td>
<td>Secure application at testing center of most colleges and universities</td>
<td>Prior to semester of application. Scores must be received by end of first long semester</td>
</tr>
<tr>
<td>File immunization record</td>
<td>Graduate Office</td>
<td>Prior to initial registration</td>
</tr>
<tr>
<td>Sign degree outline</td>
<td>Graduate Office</td>
<td>At earliest opportunity during the first semester of attendance</td>
</tr>
<tr>
<td>Arrange for thesis committee</td>
<td>Departmental Office</td>
<td>The first semester of thesis research</td>
</tr>
<tr>
<td>Submit thesis proposal</td>
<td>Graduate Office</td>
<td>Before beginning formal thesis research</td>
</tr>
<tr>
<td>Pay diploma fee</td>
<td>In registration line (fees) or cashier's window</td>
<td>Beginning of semester of planned graduation.</td>
</tr>
<tr>
<td>Apply for graduation</td>
<td>Graduate Office</td>
<td>See official university calendar for required deadlines.</td>
</tr>
<tr>
<td>Remove any incomplete grades</td>
<td>Departmental Office</td>
<td>By end of one calendar year from date of registration for course.</td>
</tr>
<tr>
<td>Take comprehensive exam</td>
<td>Departmental graduate advisor</td>
<td>Generally during final semester with report due in Graduate Office no later than 10 days prior to graduation</td>
</tr>
<tr>
<td>Complete requirements of degree outline</td>
<td></td>
<td>No course more than six years old may be counted toward a degree</td>
</tr>
<tr>
<td>Attend graduation, or request absence permit</td>
<td></td>
<td>Comply with instructions mailed to all candidates</td>
</tr>
</tbody>
</table>

REMINDER: NO PERSON IS OFFICIALLY IN A GRADUATE PROGRAM AT SOUTHWEST TEXAS STATE UNIVERSITY UNTIL THAT PERSON HAS A SIGNED DEGREE OUTLINE IN HAND. ANY COURSES TAKEN PRIOR TO ADMISSION TO GRADUATE SCHOOL MAY NOT BE APPLIED TOWARD A DEGREE WITHOUT PERMISSION OF THE GRADUATE DEAN AT THE TIME OF ADMISSION.
officers of administration

board of regents, texas state university system

1976-1977

James L. Powell, President (1977) .................................................................Fort McKavett, Texas
Anne Clark, Vice President (1977) ...............................................................Austin, Texas
John S. Cargile (1981) .......................................................................................San Angelo, Texas
Lee Drain (1977) ...............................................................................................Dallas, Texas
Harry Hornby, Jr. (1981) ..................................................................................Uvalde, Texas
Bernard G. Johnson (1981) ...............................................................................Houston, Texas
J. C. Kellam (1979) ............................................................................................Austin, Texas
Emil C. Rassman (1979) ....................................................................................Midland, Texas
Sam E. Tanner (1979) .......................................................................................Henderson, Texas
Gary L. Whittle, Executive Director .................................................................Austin, Texas

Lee H. Smith, Ph.D. .................................................................President
W. Pence Dacus, Ed.D. ..........................Vice President for Institutional Advancement
William E. Norris, Jr. Ph.D. .................Vice President for Academic Affairs and Dean of the University
Eugene E. Payne, Ph.D. ......................Vice President for Finance and Management
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Oscar L. Dorsey, Ph.D. ........................Associate Vice President for Academic Affairs and Dean of the School of Applied Arts
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Billy J. Franklin, Ph.D. ........................Dean of the School of Liberal Arts
Archie O. Parks, Ph.D. .......................Dean of the School of Science
W. Leland Wilson, Ph.D. .....................Dean of the School of Business
James J. Garland, Ed.D. .....................Dean of the School of Education
Don C. Green, Ph.D. ........................Dean of the School of Health Professions
Billy J. Franklin (Acting) .......................Dean of the Graduate School
Joseph P. Bevilacqua, Ed.D. .................Dean of Student Life
Alton G. Brieger, M.A. ......................Dean of Student and Academic Services
Louis C. Moloney, D.L.S. .....................Librarian and Director of Learning Resources Center
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calendar
1977-78

fall semester
1977

August 23, Tuesday .............................................................. Orientation
8:00 a.m. - 2:00 p.m. ......................................................... All new students
Transfers and freshmen not registered
8:00 a.m. - 12:00 noon ...................................................... All new faculty
2:30 p.m. - 3:45 p.m. ..................................................... Departmental meetings as needed
4:00 p.m. ................................................................. General Faculty meeting in Speech-Drama Center

August 24, 25, and 26, Wednesday, Thursday, and Friday ................ Registration
(Thursday, 6:30-8:30 p.m. - Registration for Saturday and one-day-a-week classes only)

August 24 - September 23 ...................... Dates to file applications for degrees to be conferred on December 17, 1977

August 29, Monday ........ Classes begin. No registration or adding/dropping courses
August 30, Tuesday ........ Classes meet. No registration or adding/dropping courses
August 31, Wednesday ....................... Late registration. No adding/dropping courses
September 1, Thursday ................... Late registration and adding/dropping courses
September 2, Friday ...................... Late registration and adding/dropping courses
September 5, Monday ......................... Classes meet - Labor Day
September 30, Friday ..................... Last day to drop a course without penalty

October 19, Wednesday ........................................ Late registration and adding/dropping courses
October 29, Saturday ................................................ Homecoming

November 24-26, Thursday, Friday, Saturday ................... Thanksgiving Holidays
Classes will be dismissed on Wednesday, November 23, at 9:00 p.m.

November 28, Monday .... Last day to drop a course or withdraw from the University
December 9, Friday, 8:00 a.m. ........................................... Final examinations
(A restricted number of final examinations will be given on the evenings of December 7
and 8. Classes will meet on these days.)

December 10, Saturday ................................................... Examinations
December 14, Wednesday ........................................... Examinations end
December 17, Saturday ................................................ Graduation

spring semester
1978

January 10, Tuesday ................................................... Orientation for all new students
January 11-13, Wednesday, Thursday, and Friday .................... Registration
(Thursday 6:30 - 8:30 p.m. - Registration for Saturday
and one-day-a-week classes only)

January 11 - February 17 ......................... Dates to file applications for degrees to be conferred on May 20, 1978
January 16, Monday .......... Classes begin. No registration or adding/dropping courses
January 17, Tuesday .................. No registration or adding/dropping courses
January 18, Wednesday ........................................... Late registration. No adding/dropping courses
January 19-20, Thursday and Friday ........................................... Late registration and adding/dropping courses
February 17, Friday .............................................................. Last day to drop a course without penalty
March 8, Wednesday .............................................................. Mid-semester
March 20-24, Monday-Friday ........................................... Spring vacation
April 27, Thursday .............................................................. Last day to drop a course or withdraw from the University
May 10, Wednesday .............................................................. Free day. No classes and no required meetings
May 11-17, Thursday-Wednesday ........................................... Final examinations
May 20, Saturday .............................................................. Graduation

summer 1978

first term

June 2, Friday .............................................................. Registration
June 2 - June 23 .............................................................. Dates to file application for degrees to be conferred on August 19, 1978
June 5, Monday .............................................................. Classes begin
June 6, Tuesday .............................................................. Only day to register late and to add/drop courses
June 16, Friday .............................................................. Last day to drop a course without penalty
June 21, Wednesday ............................................................... Half term (3 weeks) classes final examinations
June 30, Friday .............................................................. Last day to drop a course or withdraw from the University
July 1, Saturday .............................................................. Classes meet
July 3, Monday .............................................................. Holiday
July 4, Tuesday .............................................................. Holiday
July 8, Saturday .............................................................. Classes meet and examinations begin
July 10, Monday .............................................................. Examinations end

second term

July 12, Wednesday .............................................................. Registration
July 13, Thursday .............................................................. Classes begin
July 14, Friday .............................................................. Only day to register late and to add/drop courses
July 15, Saturday .............................................................. Classes meet
July 25, Tuesday .............................................................. Last day to drop a course without penalty
July 28, Friday .............................................................. Half term (3 weeks) classes final examinations
August 8, Tuesday .............................................................. Last day to drop a course or withdraw from the University
August 15, Tuesday .............................................................. Classes meet and examinations begin
August 16, Wednesday .............................................................. Examinations end
August 19, Saturday .............................................................. Graduation
August 29, Tuesday .............................................................. First General Faculty Meeting for Fall, 1978
Located at the foot of the Texas Hill Country, where blackland prairies turn into beautiful hills, Southwest Texas State University enjoys a setting that is unique among Texas universities. The beauty of the crystal clear San Marcos River and many sprawling cypress and pecan trees on the campus adds to the charm of this picturesque locale. Although major metropolitan centers are not far away, San Marcos has managed to retain the charm of a smaller community, and Southwest Texas State University still has a real university atmosphere—a place where faculty and students take the processes of teaching and learning seriously. From historic red-steepled Old Main, with its ivy-covered walls, to the Lyndon Baines Johnson Memorial Student Center, with its modernistic dome-covered plaza, you get the feeling that you are indeed on a college campus that is special.

Sound academic programming that combines the best of liberal arts education with professional, career-oriented curricula provides students here with a broad range of educational options, including graduate degree programs in a wide variety of academic and professional areas.

All of these factors, and more, have contributed to the steady growth of Southwest Texas State University. Opening its doors in 1903 with only 303 students, Southwest Texas State has grown from a two-year normal school to a multi-purpose university with a 1976 enrollment of over 13,500. In spite of its growth, the University continues to maintain its emphasis on caring for the individual. People are the reason for which Southwest Texas State University exists.

The establishment of a Graduate School at Southwest Texas State University was authorized by the Board of Regents at its meeting on July 15, 1935. Graduate courses were first offered during the summer session of 1936, and the first Master of Arts degree was conferred at the spring commencement of 1937. In 1950, the Board of Regents authorized the granting of the Master of Education degree in addition to that of Master of Arts. In 1968, action of the Coordinating Board, Texas College and University System, added the degree of Master of Business Administration for implementation in 1969. In 1972, the University was authorized to grant the degrees of Master of Science and Master of Arts in Teaching, and in 1973 the degree of Master of Public Administration and Master of Science in Health Professions. The graduate program, originally designed exclusively for the preparation of teachers and school administrators, has been expanded more recently to meet other demands such as the preparation of junior college instructors and to fulfill the present role of the university as a general regional institution.

The university is organized into the School of Creative Arts, the School of Liberal Arts, the School of Science, the School of Business, the School of Education, the School of Applied Arts, the School of Health Professions and the Graduate School.

The Graduate Council determines the policies of the Graduate School, and these policies are administered by the Dean of the Graduate School. Besides the Dean, who serves as chairman, the Graduate Council is composed of a representative of each department which offers a graduate major. The President of the University, the Dean of the University, and the Registrar are ex officio members of the Council.
graduate council

Billy J. Franklin, Acting Dean of the Graduate School, Chairman
Alfred E. Borm, Department of Mathematics (1973-1977)
Louis E. Brister, Department of Modern Languages (1975-1979)
J. Peter Coulson, Department of Speech and Drama (1973-1977)
James R. Crawford, Department of Physics (1976-1980)
John W. Fitch, Department of Chemistry (1975-1979)
Charles Johnson, Department of Allied Health Sciences (1977-1980)
Roy V. Miller, Jr., Department of Agriculture (1977-1980)
Robert E. Patton, Department of Health and Physical Education (1975-1979)
James W. Pohl, Department of History (1975-1979)
Francis M. Rich, Jr., Department of Political Science (1976-1980)
Alvin P. Short, Department of Sociology-Anthropology (1973-1977)
David R. Stevens, Department of English (1973-1977)
Robert M. Stevenson, Department of Business Administration (1976-1980)
Donald W. Tuff, Department of Biology (1975-1979)
Doyle G. Ward, Department of Special Education (1976-1980)
Bobby L. Williamson, Department of Education (1975-1979)
Billy L. Windham, Department of Industrial Arts (1973-1977)
Darwin E. Winfield, Department of Health Administration (1973-1977)
Byron A. Wolverton, Department of Music (1974-1978)

ex-officio

President Lee H. Smith
Vice President William E. Norris, Jr.
Registrar Robert E. Gaines

admission policies

Applications for admission to the Graduate School may be obtained from the Graduate Office and must normally be submitted at least thirty days prior to the beginning of the semester of entrance. The applicant should also make provisions to have two official transcripts sent to the Graduate Office. The transcripts should reflect all college work attempted and degree(s) conferred. In addition, all applicants are required to take the aptitude portion of the Graduate Record Examination. The results of this examination must be received in the Graduate Office no later than the end of the first long semester following the student's admission to the Graduate School. Seniors who have a superior academic record and lack nine (9) or fewer semester hours toward graduation may, with the approval of the proper departmental advisor and the Graduate Dean, register during their final semester of undergraduate study for courses to be applied toward a Master's degree.

There are three levels of admission to the graduate program:

1. Definitive Admission. If an applicant has a GPA of 2.5 or above on a scale of 4 and has a Graduate Record Examination score of 900 or above, definitive admission to Graduate School is granted and the applicant's credentials are sent to the proper department for approval.

2. Tentative Admission. If an applicant has a GPA of less than 2.5 but not less than 2.0, but has a Graduate Record Examination score of 900 or above, OR if the applicant has a GPA of more than 2.5 and a Graduate Record Examination score of less than 900, that applicant may be admitted to Graduate School on a tentative level. The applicant with more than 2.5 and no GRE score may be admitted to a tentative level, but a GRE score must be received by the Graduate
Office by the end of the first long semester following the student's admission to Graduate School for that student to continue in a graduate program. Applicants with less than 2.5 and less than 900 on the GRE are not admissible to Graduate School at SWT.

3. Probationary Admission. Applicants with less than 2.5 and no GRE score may, under very unusual circumstances, be admitted to probationary status for a maximum of six hours of graduate work. Students admitted under probationary status must agree to score 900 or above on the GRE or discontinue their graduate program. The GRE must be taken at the first national testing date following probationary admission.

In addition to these levels of admission, there is a “Special Student” classification for students who wish to take graduate courses but do not wish degree credit. Credits taken by “Special Students” CAN NOT be converted into degree credits.

All admissions are subject to the approval of the respective major and minor departments.

foreign students

In addition to the general requirements for admission to the Graduate School of Southwest Texas State University, certain additional requirements must be met by foreign student applicants. English language proficiency is necessary and may be demonstrated through either (1) possession of an undergraduate degree from an accredited U.S. college or university OR (2) presentation of a TOEFL score of at least 500. While a limited number of foreign student applicants may begin their graduate studies on a Tentative admission status (having presented an undergraduate grade-point average of at least a 2.5 and having met the English language proficiency requirements), most foreign students need to be definitively admitted before beginning their work. An I-20 Form CANNOT be issued to a student who has only met Tentative admission requirements; Definitive admission is required if an I-20 Form is to be issued. To meet definitive admission standards and to qualify for an I-20 Form, a foreign student applicant must meet the following requirements in addition to those listed above:

1. submit a GRE score of at least 900 and
2. submit a check or money order for $2400 to cover the first nine months of expenses to the Registrar's Office.

UNDER NO CIRCUMSTANCES WILL AN I-20 FORM BE ISSUED TO A STUDENT WHO HAS NOT BEEN DEFINITIVELY ADMITTED TO THE GRADUATE SCHOOL.

requirements for the master's degree

1. Residence requirement. In general, thirty semester hours of graduate work should be completed in residence at Southwest Texas State University.

2. Credits by Transfer, Extension Study, or Correspondence. A maximum of six semester hours of credit earned at another institution may be accepted on transfer and applied toward the master's degree provided that the credit was earned in graduate courses completed in residence at the accredited institution, that the courses are appropriate to the student's degree program at this university, and that: (1) if the credits were earned prior to the student's admission to Graduate School here, the credits were earned while the student was enrolled under a degree program at that institution OR (2) if the credits are to be earned after the student's admission to Graduate School here, prior written approval of the enrollment has been given by the Graduate Dean here and a Letter of Good Standing has been sent to the other institution by the Graduate Dean prior to the student's enrollment in the course(s) to be transferred.
A request for a Letter of Good standing begins with a student request to the graduate advisor. If the advisor approves of the proposed substitution, a request for a Letter of Good Standing is submitted to the Graduate Dean by the graduate advisor. If the Graduate Dean approves the substitution, a Letter of Good Standing is sent to the university where the student will be enrolling. A student who plans to take courses on another campus as part of a graduate degree program at Southwest Texas State University should initiate a request for a Letter of Good Standing well in advance of the time of the planned enrollment, since transfer credit cannot be permitted unless a Letter of Good Standing has been issued prior to the student’s enrollment in the course(s) to be transferred.

Not more than six semester hours of graduate credit may be earned in extension courses offered by Southwest Texas State University.

No credit toward a master’s degree may be earned through extension courses at another institution or through correspondence study.

3. Time Limit. A program leading to the master’s degree must be completed within six years from the date of the student’s initial enrollment for graduate courses. No credit will be applied toward the master’s degree for courses completed more than six years before the date on which the degree is to be conferred. An extension of time will be given to students who are inducted into military service.

4. The minimum number of semester hours required for the master’s degree is 30; the maximum is 45.

5. All courses required for masters degrees offered at Southwest Texas State University shall be at the 5000 or above level. In exceptional cases, with the prior approval of the student’s graduate advisor and the Graduate Dean, up to nine hours of upper division undergraduate level work may be applied toward a student’s degree requirements. In any case, at least one half of the courses applied toward any major or minor program must be numbered 5000 or above. Students enrolled in undergraduate courses for graduate credit will be required to meet higher standards of work, both quantitatively and qualitatively, than are required for undergraduates.

6. Only in rare situations will credit earned in courses open to juniors be applied toward the master’s degree, and credit in such courses may be applied only with the express prior approval of the Graduate Dean.

7. Majors in education who apply for the Master of Education degree must include a problems course: Education 5390 or Education 5391. As a part of the requirements of each course the student will write a formal report prepared in conformity with instructions given in the manual for writing the thesis.

8. Prerequisites for Graduate Courses. Generally a background of at least 24 semester hours, including 12 advanced, is required for the graduate major; and 18 hours, including six advanced, are required for the graduate minor. Exceptions in background requirements may vary in split minors and in requirements for minors in elementary education. In some instances 18 advanced hours in education may be sufficient background for a major in education. Majors in any field of education who have not completed student teaching must complete this course as a background requirement or obtain a waiver from the Department of Education on the basis of teaching experience. Background for the degree of Master of Business Administration normally consists of the baccalaureate degree in business administration, or 30 hours in the field to include these courses or their equivalents: accounting, 6 hours; economics, 6 hours; business law, 3 hours; finance, 6 hours; management, 3 hours; marketing, 3 hours; statistics, 3 hours.
9. Grades in all courses taken for graduate credit and in all courses completed in the major field must average "B." A student who falls below a "B" average may not continue a degree program without approval of the Dean of the Graduate School.

10. Grades of "D" or "F" are grounds for termination of a degree program. Termination is subject to review by the department chairman, the Graduate Dean, and, ultimately, the Graduate Council.

11. A grade of "I" (incomplete) in any course other than the thesis must be completed within one calendar year from date of enrollment or the grade of "I" will automatically be converted to a grade of "F." Incomplete grades must be cleared through the Graduate Office at least 10 days before the commencement at which the degree is to be conferred.

12. Thesis Requirements. If the student elects to write a thesis, a committee to direct the thesis will be assigned by the department chairman in conference with the student.

   a. The thesis must demonstrate the student's capacity for research and independent thought. The completed thesis must be submitted to the chairman of the thesis committee not later than 45 days before the date of the commencement at which the degree is to be conferred and must be deposited with the Dean of the Graduate School for final approval not later than 30 days before the date of the commencement at which the degree is to be conferred.

   Two copies suitable for binding must be delivered to the Dean of the Graduate School before the week of graduation.

   b. Two copies of the thesis must be deposited in the library, and a fee to cover the cost of binding must be paid to the library before the degree is conferred. Failure to comply with this regulation will delay graduation until the following semester.

   c. The thesis must be prepared in conformity with Kate L. Turabian's *A Manual For Writers* which is available in the University Bookstore.

   d. Credit for the thesis will be recorded as course number 5699, or 5399, in the field in which the subject matter of the thesis falls, e.g. Education 5699, English 5699. If the student does not complete the thesis in a term or semester in which he is enrolled for it, he will receive a grade of "P" with the privilege of redeeming credit for the course by completing the thesis at any time prior to his graduation.

A student may enroll for either three or six hours of credit in the thesis course in any semester or summer term, for a total of six hours. A student will be required to enroll and pay the fee for at least three hours of the thesis course during any semester or term during which he desires thesis supervision. Preliminary discussions regarding the selection of a topic and assignment to a supervisor will not require enrollment for the thesis course. Failure to register for the thesis course during a semester in which supervision is received may result in postponement of graduation. All candidates for degrees must be registered for the thesis course during the semester in which the degree is conferred. The only exception to this rule will be in cases where copies are delivered for binding prior to the day of graduation, but too late for participation in graduation ceremonies. In this case, and this case only, the candidate need not enroll in the succeeding semester.

13. Comprehensive Examination. All candidates for the master's degree must pass a comprehensive examination, either written or oral or both, covering at least the field of concentration and the thesis if a thesis is written. This examination may not be taken until the student has acquired at least 18 hours of graduate credit and may not be
taken before the final term or semester if the student has a grade deficiency. The grade on
the comprehensive examination must be filed in the Graduate Office at least 10 days
before the commencement at which the degree is to be conferred. Arrangements for the
examination may be made with the major professor or the department head.

14. Application for the Degree. Upon registering for the last semester of work, a
student indicates plans to graduate at the end of that semester and pays the $8.00 diploma
fee. An application for the degree must also be filed in the Graduate Office within the period announced in the University calendar. These steps must be taken in order to
complete application for a degree. Failure to apply for graduation on time may require
the student to accept a statement of completion instead of a diploma, and graduate the
following semester.

If a student fails to graduate at the time for which initial application is made, the
student must re-apply for the next appropriate time and pay a $1.00 charge for changing
the diploma insert. Re-application for the degree must also be filed in the Graduate
Office within the period announced in the University calendar.

15. Recommendations for the Degree. Upon the completion of all require­
ments for the master's degree, and with the approval of the department concerned,
candidates are certified for graduation by the Dean of the Graduate School. Degrees are
conferred publicly at the close of the fall semester, the spring semester, and the summer
session.

objectives of the graduate school

The purpose of the Graduate School is to provide the means for continued
intellectual growth through advanced and specialized education. The ultimate aim is to
develop leaders in the professions and in research. More explicitly, the following objec­tives have been adopted to add both breadth and depth to the academic and professional
preparation received at the undergraduate level:

1. To reinforce and extend the student's academic and professional equipment
as a means of improving professional competence.

2. To familiarize the student with current and recent research in his field; to
acquaint him with the techniques of research; to enable him to interpret his own and
current research, to derive significant implications therefrom, and to apply pertinent
findings.

3. To challenge the student intellectually, to develop the power of independent
thought, and to direct him toward the goal of greater effectiveness in both his personal
and professional life.

characteristics of graduate study

Graduate study affords students of superior ability opportunity for continued
intellectual growth and development. It presupposes a broad background of knowl­
dge, adequate preparation in the major and minor fields of study, and a command of the
skills and techniques needed to carry on intensive research and investigation with a high
degree of resourcefulness and self-direction. Policies of the Graduate Council provide
that graduate instruction differs from undergraduate instruction in at least the following
respects:

1. More emphasis is placed on bibliography and on the use of library materials.

2. More extensive reading is required.

3. More comprehensive papers and reports are required.

4. The graduate student is expected to assume greater responsibility and to
exercise more initiative.

5. Seminar methods will be employed more frequently, requiring more class
participation on the part of the student.
course numbers

Courses numbered 5000 and above are open to graduate students exclusively. Courses in the 3000 and 4000 series may, in rare instances, be accepted for graduate credit. The inclusion of undergraduate courses in a graduate program must have the prior approval of the Dean of the Graduate School, and graduate students enrolled in such courses will be held to a higher standard of performance than is required of undergraduates.

Graduate courses typically carry 3 semester hours of credit; among the exceptions are thesis courses, which yield 6 semester hours of credit.

amount of work permitted

At the graduate level the normal course load during a semester is 12 hours; the maximum is 15 hours. The maximum load during a summer term of six weeks is 6 hours. The permissible load of assistant instructors and other part-time employees of the university will be determined by the department.

Teachers who are employed full time in the public schools must have the approval of their employer to enroll for more than three hours during any semester; they may not under any circumstances earn more than six hours of credit during any semester nor more than nine hours during any long session.

required immunizations

Students must have proof of having had immunizations for diphtheria, tetanus, and polio within the past ten years. Students over 19 are exempt from the polio requirement.

fees and expenses

registration fees and deposits

General Property Deposit. Each student is required to make a General Property Deposit of $10.00 which must remain with the University through his career here except as noted in "A" below. All charges for property losses or damages or breakages or violations of rules of the University must be settled promptly. However, any unpaid current charges will be deducted from the deposit before a refund is made.

Refund of General Property Deposit. The General Property Deposit less charges will be returned to the student at the end of his career as a student, provided, however, that any General Property Deposit which remains without call for refund for a period of four years from the date of last attendance at this University shall be forfeited and the deposit become a part of and operative to the permanent use and purpose of the University Student Deposit Fund.
## Required Registration Fees

### Fall and Spring Semesters of the Long Term

<table>
<thead>
<tr>
<th>Semester Credit Hours</th>
<th>Residents of Texas</th>
<th>Non-Residents U.S. Citizens</th>
<th>Foreign Students See Note (1)</th>
<th>Foreign Students See Note (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>$218.00*</td>
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(1) Foreign students who were enrolled at a state college or university prior to June 20, 1975.

(2) Foreign students registering at a state college or university for the first time after June 19, 1975, and each subsequent semester thereafter.

*Add $4.00 for each hour over 20
**Add $40.00 for each hour over 20
***Add $14.00 for each hour over 20

### Summer Term

#### 1978

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(1) Foreign students who were enrolled at a state college or university prior to June 20, 1975.

(2) Foreign students registering at a state college or university for the first time after June 19, 1975, and each subsequent semester thereafter.

* First hour over 7 (if permitted) add $7.00; second hour over 7 (if permitted) add $11.00.
** First hour over 7 (if permitted) add $43.00; second hour over 7 (if permitted) add $83.00.
*** First hour over 7 (if permitted) add $15.00; second hour over 7 (if permitted) add $29.00.

southwest texas state university

Rules Regarding Fees. Rules and regulations governing the resident classification of a student shall be available in the Office of the Dean of Admissions and any student who is uncertain of his status should be encouraged to obtain such rules and regulations and to seek a determination of his status through that office.

The University reserves the right to change fees in keeping with the acts of the Texas Legislature and the Board of Regents, Texas State University System.

Payment of Fees. All fees and deposits are payable at the time of registration, and a student is not registered until his fees are paid. Payment may be made in check or money order payable to Southwest Texas State University. If checks are returned unpaid for any reason other than the admitted error of the bank, the student must pay in cash immediately. Students whose checks have been dishonored may be required to pay in cash thereafter.

Loose coins in excess of the appropriate denomination required by banks are not acceptable for payment of any fee unless they are wrapped in appropriate denominational coin wrappers and signed by the payer.

The payment of all fees entitles the student to admission to classes, admission to auditorium and athletic attractions, subscription to the University Star, use of the Student Center facilities, use of the health services, Sewell Park facilities and group use of the Wimberly camp. These fees also help provide funds for the Associated Students, Band, Choir, dramatics, debate and other student activities.

Fees for Off-Campus Courses. Off-campus students pay tuition and fees at the same rate as on-campus students.

Auditing Fees. Where auditing of a course is permitted, all fees will be the same as if the course were taken for credit.

Extension and Correspondence Instruction. Pursuant to the action taken by the Board of Regents, the fee for extension instruction is $75.00 and $60.00 for correspondence instruction for a three-hour course with a pro rata portion of the fee charged for each additional semester hour to be payable in advance. The audit fee for extension courses is the same as if the course were taken for credit.

Fee for Late Registration. A late registration fee of $5.00 will be charged all undergraduate students who register after the first class day of any semester or of either term of a summer session, provided that the Registrar may waive such fee if the late registration is dictated by circumstances deemed by him to be beyond the student's control.
**Fee for Schedule Change.** A fee of $2.00 will be charged for each change in the schedule of a student after that schedule has been filed, except when such change is dictated by circumstances deemed by the Registrar to be beyond the student's control.

### Vehicle Registration Fees

**Automobiles:**
- Twelve months beginning the Fall Semester: $15.00
- Spring Semester and Summer Session: $10.00
- Summer Session only: $5.00
- Satellite parking; Evans Field & Sessom Dr. Lots 1 & 2:
  - Twelve months beginning the Fall Semester: $5.00
- Satellite parking, Spring Semester & Summer: $3.00
- Satellite parking, Summer only (Evans Field not used during the Summer): $1.00

**Motorcycles, motor bikes and scooters:**
- Twelve months beginning the Fall semester: $3.00
- Summer Session only: $2.00

The official traffic regulations will be those published by the University each year, entitled "Traffic-Parking Regulations."

### Fees for Special Courses

#### (In addition to registration fees)

- **Piano, organ, voice, band or orchestral instruments:**
  - Two (one-half hour) lessons per week: $35.00 per semester
  - One (one-half hour) lesson per week: $18.00 per semester
  - Class Piano 1108, 1110, 1112, 1114: $10.00 per semester
  - Music Practice Fee: $2.00 per semester

- **Scattered Practice Teaching, Education 4382, 4383, 4384:** Off-campus
  - (payable in full upon initial registration one time only): $75.00

- **Internship Practicum, Education 5389:** Off-campus
  - (payable in full upon initial registration one time only): $75.00

- **Internship Practicum, Special Education 5389:** Off-campus
  - (payable in full upon initial registration one time only): $75.00

- **Laboratory Fees:**
  - Agriculture 2473, 3375, 4374: $5.00 per semester
  - Agriculture 2379, 3379, 4361, 4379: $3.00 per semester
  - Agriculture 2345: $8.00 per semester
  - Allied Health Science 2414, 3412: $4.00 per semester
  - Biology 5690, 5699: $4.00 per semester
  - Biology 1410, 1420, 2340, 2350, 2360, 2430, 2440, 2442, 2450, 2470, 2480, 2490, 2495, 4299, 4302, 4303, 4305, 4310, 4312, 4313, 4315, 4316, 4320, 4321, 4322, 4323, 4330, 4340, 4345, 4365, 4370, 4380, 4411, 4412, 4440, 4445, 5305, 5310, 5312, 5313, 5315, 5318, 5319, 5320, 5321, 5322, 5323, 5330, 5335, 5336, 5340, 5345, 5355, 5360, 5361, 5362, 5365, 5370, 5380, 5390, 5399, 5411, 5412: $2.00 per semester
refund of fees

Any student who has paid his registration fees and officially withdraws by submitting a withdrawal card and registration receipt to the Cashier in the Office of the Director of Accounting is entitled to a refund of tuition and fees as follows:

Regular Session
Prior to the first regularly scheduled class day — 90%
During the first week of regularly scheduled classes — 80%
During the second week — 60%
During the third week — 40%
During the fourth week — 20%
No refund after fourth week

Summer Session
Prior to the first regularly scheduled class day — 90%
During the first week of regularly scheduled classes — 80%
During the second week — 40%
No refund after second week

Should a student reduce his semester hours sufficiently to be entitled to a refund, the following will apply:

Regular Session
During the first week — 80%
During the second week — 60%
No refund after second week

Summer Session
During the first week — 80%
No refund after first week

No refund of tuition and fees will be made in cases where students are requested to withdraw.

No refunds will be made where the amount is less than $2.00. An immediate refund will not be made at the time a student withdraws or reduces his hours during a semester, but upon request a check covering all refunds due will be mailed within approximately 30 days to the address left at the cashier’s window, Office of the Director of Accounting.
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*In addition to majors and concentrations, there are a number of endorsements and certification programs available within the framework of the degree programs mentioned above. All inquiries concerning ADMINISTRATIVE EDUCATION, VISITING TEACHER SUPERVISOR, EARLY CHILDHOOD, BI-LINGUAL/BI-CULTURAL, AND GUIDANCE ASSOCIATES programs should be directed to the Department of Education.*
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**Areas of concentration may be selected from LANGUAGE/LEARNING DISABILITIES, GENERIC, SPEECH/HEARING THERAPY, MENTAL RETARDATION, and EMOTIONALLY DISTURBED. There is a composite program leading to certification as ASSOCIATE SCHOOL PSYCHOLOGIST and as EDUCATIONAL DIAGNOSTICIAN. The Associate School Psychology composite program requires completion of 45 hours prior to the completion of degree requirements for the Master of Education Degree.**
Kolbe, William DeForest, Professor of Art. B.S., Wisconsin State University; M.S.A.E., Illinois Institute of Technology. (Painter in oils and watercolor. Special interest in Art Education. Extensive experience in public school administration.)

Marlow, Foster Leroy, Professor of Art. B.S., in Ed., M.S. in Ed., Eastern Illinois University; D.Ed., Pennsylvania State University. (Specialist in Art Education, crafts and design. Experienced in public school and university administration.)

Suckle, Charles John, Professor of Art and Chairman of the Department of Art. B.S. in Ed., Western New Mexico University; M.A., New Mexico Highlands University. (Potter, Jeweler, twenty-seven years experience. Administrative experience, college and university.)

Williams, Tommy Carroll, Assistant Professor of Art. A.A., Lubbock Christian College; B.S., West Texas State University; Ed.D., Colorado State College. (Art Historian, Ancient, Medieval, Contemporary and Pre-Columbian.)

degree programs
The Department of Art offers work in minor fields, but not in major programs.

courses offered

5321 Painting Studio. (3-3) Credit, 3 hours. Studio course urging independent involvement in a specialized area of painting. Prerequisite: 6 hours of painting.

5323 Research in Art Theory and Practice for the Elementary Grades. (3-0) Credit, 3 hours. Research in art literature, studio and teaching practices. Prerequisite: Art 3323 or teaching experience.

5325 Research in Art Theory and Practice for Art beyond the Elementary Grades. (3-0) Credit, 3 hours. Research in art literature, studio and teaching practices. Prerequisite: Admission to Graduate School in Education.
*5327 Ceramic Problems. (3-3) Credit, 3 hours. Indepth exploration of expressive and technical aspects of clay and glazes. Kiln stacking and firing techniques. Prerequisite: Art 4327

*5365 Jewelry. (3-3) Credit, 3 hours. Emphasis is on the experimental elements in jewelry making. Development of individual design emphasized. Prerequisite: Art 3365, 4365

5393 History of Mexican Art. (3-0) Credit, 3 hours. The history of art and architecture in Mexico from colonial times to the present.

*May be repeated once with different emphasis for additional credit.
department of music

graduate faculty:

Bek, Anton John, Associate Professor of Music. B.M., M.M., DePaul University. (Strings, Literature)

Belisle, John Michael, Associate Professor of Music. B.M., Oklahoma City University; M.M.Ed., D.Mus., Indiana University. (Voice, Opera)


Callahan, Maurice Moore, Associate Professor of Music. B.M., Bethany College; M.A., Colorado State College. (Brass, Music Education)

Ham, Harry Candidus (Harry Wayne), Associate Professor of Music. B.M., M.M., North Texas State University. (Voice)

Harrel, John Ralph, Professor of Music, Associate Vice President for Academic Affairs, and Dean of the School of Creative Arts. B.M., Bethany College; M.A., Ed.D., Columbia University Teachers College. (Piano)

Hiebert, Arlis John, Professor of Music and Chairman of the Department of Music. B.M., University of Oklahoma; M.M., Ph.D. George Peabody College. (Voice, Music Education)

Riepe, Russell Casper, II, Assistant Professor of Music. B.M., Southern Illinois University; M.A., Ph.D., Eastman School of Music, University of Rochester. (Theory, Composition)

Whalin, John Robert, Associate Professor of Music. B.M., Oberlin College; M.M., D.Mus., Indiana University. (Piano)

Wolverton, Byron Adams, Associate Professor of Music. B.Mus., M.A., University of Missouri; Ph.D., Indiana University. (Keyboard, History and Literature)

degree programs

The Department of Music offers graduate work in music education, applied music, music theory and composition, and music history and literature, leading to the Master of Education degree with a major in Music or Music Education. The program normally consists of a major of 21 hours and a minor of 15 hours. The minor may be in Music, in Music Education, or in a field outside the department in which there is sufficient undergraduate background.

A flexible program is offered which allows a choice of emphasis in any of the areas of music listed above. A thesis is not required; however, when theory, composition, history, or literature is chosen for emphasis, 6 to 9 hours of the degree are normally devoted to an appropriate special project. If applied music is chosen for emphasis, a recital is presented as a part of the program. Opportunities are provided for independent study with professors in their areas of specialization.
Financial Aids Program: Financial assistance is available to graduate students in the Music Department through appointment as Assistant Instructors (with teaching duties in music fundamentals and applied music) or Music Assistants (with a variety of duties assisting with the instructional program of the department). For further information about the degree program and financial assistance, please contact the Graduate Music Advisor, Dr. Byron Wolverton, or the Chairman of the Music Department, Dr. Arlis Hiebert.

Courses offered

*5136, *5236 Graduate Music Workshop. Workshops in music are scheduled at periodic intervals with emphasis in varying subject areas. One hour credit per each week of workshop study is available. No more than four hours can be used toward a degree.

5192 Graduate Recital. (0-1) A full-length, public recital in the appropriate applied music area. Should be taken simultaneously with the final semester of applied music instruction by those students in performance degree plans.

5221 Vocal and Choral Techniques and Materials. (2-0) Credit, 2 hours. Methods for the development of the singing voice, both in solo and in chorus. Classification and analysis of teaching materials.
Prerequisite: Music 3227

5222 Instrumental Techniques and Materials. (2-0) Credit, 2 hours. Evaluation of teaching methods, materials, and literature of wind and string instruments.
Prerequisite: Music 3217.

*5227 Advanced Conducting. (2-0) Credit, 2 hours. Further development of baton technique, score reading, and rehearsal preparation, with special emphasis on analysis and musical styles.
Prerequisite: Music 3217 or 3227.

5310 Music Literature of the Baroque. (3-0) Credit, 3 hours. Style characteristics and literature of the music of 1600-1750, with special emphasis on Bach and Handel.

*5313, *5317 Problems in Music Education. (3-0) Credit, 3 hours each. Study of one or more problems in music education that hold special interest or offer opportunity for professional improvement and growth.

5314 Survey of Twentieth Century Music. (3-0) Credit, 3 hours. Emphasis upon music of the modern period and its development from music of earlier periods. Numerous examples of vocal and instrumental works in both large and small forms are used to illustrate twentieth-century styles and trends.

5320 Music Literature, Viennese Classical. (3-0) Credit, 3 hours. Style analysis of music literature from 1750 to 1830, with emphasis on Haydn, Mozart, and Beethoven.

5334 Introduction to Graduate Study in Music. (3-0) Credit, 3 hours. Techniques and materials of research, emphasizing bibliography, library usage, collection and interpretation of data.

5335 Piano Literature. (3-0) Credit, 3 hours. A survey of keyboard music with performance and discussion of works from various historical periods.

*May be repeated once with different emphasis for additional credit.
*5336 Seminar in Music Education. (3-0) Credit, 3 hours. A seminar course designed to acquaint the student with research techniques and procedures in music education. Formulation of a research problem, definition, design, procedure; technique for location, collection, quantification and treatment of data. Each student is expected to carry out a practical or creative project or investigation.

5340 Music Literature, 19th Century Romantic. (3-0) Credit, 3 hours. Music literature of the period from 1830 to 1910, with analysis of styles.

5350 Musical Styles. (3-0) Credit, 3 hours. Developing a broader musical understanding through critical listening, technical analyses, and written assignments in various musical styles, including the late classical, romantic, and present eras.

5355 Pedagogy of Theory and Comprehensive Musicianship. (3-0) Credit 3 hours. Developing teaching methods and broader understanding through critical study of materials, organization, techniques, and problems of music theory and comprehensive musicianship courses.

5360 Music in the United States. (3-0) Credit, 3 hours. A survey of the music and musical development in this country from pre-Columbian times to the present. Folk music, popular music, and jazz will be considered as well as traditional and experimental styles.

applied music

Applied music courses may be repeated for additional credit. The amount of applied music credit to be counted toward a degree is prescribed by each student's degree plan.

5101, 5102 Applied Music: Graduate Organ. (0-1) Credit, 1 hour. Private instruction in music through performance.

5105, 5106 Applied Music: Graduate Orchestral Instruments. (0-1) Credit, 1 hour. Private instruction in music through performance.

5111, 5112 Applied Music: Graduate Piano. (0-1) Credit, 1 hour. Private instruction in music through performance.

5115, 5116 Applied Music: Graduate Voice. (0-1) Credit, 1 hour. Private instruction in music through performance.

5201, 5202 Applied Music: Graduate Organ. (0-1) Credit, 2 hours. Private instruction in music through performance.

5205, 5206 Applied Music: Orchestral Instruments. (0-1) Credit, 2 hours. Private instruction in music through performance.

5211, 5212 Applied Music: Graduate Piano. (0-1) Credit, 2 hours. Private instruction in music through performance.

*May be repeated once with different emphasis for additional credit.
5215, 5216 Applied Music: Graduate Voice. (0-1) Credit, 2 hours. Private instruction in music through performance.

5301, 5302 Graduate Organ. (0-1) Credit, 3 hours. Private instruction in music through performance.

5305, 5306, Graduate Orchestral Instruments. (0-1) Credit, 3 hours. Private instruction in music through performance. Normally open only to students on a recital program.

5311, 5312 Graduate Piano. (0-1) Credit, 3 hours. Private instruction in music through performance. Normally open only to students on a recital program.

5315, 5316 Graduate Voice. (0-1) Credit, 3 hours. Private instructions in music through performance. Normally open only to students on a recital program.
Abernathy, Elton, Professor of Speech and Drama. B.A., Abilene Christian College; M.A., Ph.D., State University of Iowa. (On faculty development leave, Fall 1976)

Baergen, John Darrel, Professor of Speech and Drama. A.B., Oklahoma Baptist University; M.A., Baylor University; Ph.D., University of Denver. (On leave of absence, 1976-1977)

Barton, James Gabriel, Professor of Speech and Drama. B.F.A., Nebraska State Teachers College; M.A., University of Michigan.

Coulson, J. Peter, Professor of Speech and Drama. B.F.A., M.A., University of Arizona; Ph.D., University of Kansas.

Flemming, David George, Assistant Professor of Speech and Drama. B.A., Adelphi College; M.A., Cornell University.

Gabbard-Alley, Anne, Associate Professor of Speech and Drama. B.A., University of Kentucky; M.A., Texas Woman's University; Ph.D., Southern Illinois University. (On leave of absence, 1976-1977)

Gratz, Robert D., Associate Professor of Speech and Drama and Chairman of the Department of Speech and Drama (Associate Dean of the Graduate School, 1976-77). B.S., Lamar University; M.A., Ph.D., Bowling Green State University.

March, Frederick Joe, Assistant Professor of Speech and Drama. B.A., M.A., Texas Tech University.

Porter, M. Erin, Associate Professor of Speech and Drama. B.A., M.A., Ph.D., The University of Texas at Austin.

Rush, David A., Assistant Professor of Speech and Drama. B.A., University of Illinois, M.A., University of Iowa; Ph.D., University of Illinois.

Salem, Philip J., Assistant Professor of Speech and Drama. B.S., Northern State College; M.A., Ph.D., University of Denver.

Schilling, Lester Lorenzo, Jr., Professor of Speech and Drama. B.S., Western Michigan University; M.A., Columbia University; Ph.D., University of Wisconsin.

Williams, M. Lee, Assistant Professor of Speech and Drama. B.A. Hardin-Simmons University; M.A., Ph.D., University of Oklahoma.
degree programs

The Department of Speech and Drama offers major and minor programs in both speech communication and drama. The 32-hour Master of Arts degree program includes from 17 to 20 hours of course work in the major field, from 6 to 9 hours in a minor field, and 6 hours of thesis credit. Students may choose to major and minor within the Department of Speech and Drama, or they may select from the wide range of minors offered in other departments. All majors in the Department must complete an introduction to graduate research course. Speech communication majors may concentrate in rhetoric and criticism, interpersonal and group communication, communication theory, or speech education. Drama majors may specialize in stage directing, technical theatre, theater history and criticism, or playwriting.

While it is possible to complete the degree requirements within a twelve-month period, many majors elect to extend the period over two years. This tendency is especially prevalent among drama majors, because a large number of their courses involve extensive out-of-class practicum training periods. Students from several other departments select minors in either speech communication or drama. Additionally, other students take some courses in the Department as part of a composite minor in a Master of Education degree.

The Department's twenty-member faculty is almost evenly divided between those with expertise in speech communication and those with expertise in drama. Many of these faculty members have an active record of involvement in state, regional, and national professional associations as well as on-going activity in the area of published research or creative activities. The Department is housed in the modern Speech-Drama Center, one of the best facilities for speech and drama activities in the entire Southwest. Graduate students in theatre are often actively involved in the University Theatre's production program.

Financial Aids Program: A large number of graduate majors in the Department of Speech and Drama are employed as either Instructional Laboratory Assistants or as Assistant Instructors. The value of these assistantships varies upward from a minimal salary of $2,190 per year.

courses offered

speech

*5315 Directed Research in Speech Communication. (3-0) Credit, 3 hours. A course, corresponding to Speech 4315, with the same title, to be offered to certain graduate students to allow for independent study in a specific area for which a regular course is not available.

5317 Cultural Dimensions of Effective Speech Communication. (3-0) Credit, 3 hours. Examines the effects of culture on speech communication focusing on application of this knowledge in improving communication in multi-cultural situations.

5318 Seminar in Interpersonal Communication. (3-0) Credit, 3 hours. A review of current research and a presentation of both rhetorical and behavioral perspectives on the area. Special emphasis on development of personal competencies in interpersonal communication situations.

5319 Organizational Communication. (3-0) Credit, 3 hours. A presentation of practical methods for dealing with the most common communication problems in the organization. Provides managers and consultants with an analytic framework for planning communication and organizational change.
5321 Communication Evaluation. (3-0) Credit, 3 hours. An in-depth study of such evaluation techniques in the field of oral communication as speech criticism and statistical and experimental measurements, designed to qualify the prospective teacher to make critical judgments of his student's efforts.

5322 Rhetorical Theory. (3-0) Credit, 3 hours. A study of the history and works of rhetorical theorists from classical to twentieth century.

5325 Seminar in Human Communication Theory. (3-0) Credit, 3 hours. An examination of non-rhetorical theories of speech communication, including a survey of recent experimental evidence on human communication.

5333 Theories of Persuasive Communication. (3-0) Credit, 3 hours. A study of persuasion and argumentation theory and its application to contemporary society.

5341 British Public Address. (3-0) Credit, 3 hours. A study of the history of British public speaking and speakers from the eighteenth century to the present.

5343 Twentieth Century Communication Strategies. (3-0) Credit, 3 hours. The analytical study of speeches, speakers, groups, movements, and rhetorical strategies in contemporary society.

5347 Leadership and Group Communication. (3-0) Credit, 3 hours. An advanced course in group communication designed to examine in detail the phenomenon of leadership in groups. Various approaches to group leadership will be surveyed, and methods of leadership training will be investigated.
Prerequisite: Speech 2330 or consent of the instructor.

5351 Descriptive Phonetics. (3-0) Credit, 3 hours. A study to develop the student's skill in using the International Phonetic Alphabet to describe variant patterns of oral English.

5361 Performance Techniques for Oral Interpretation. (3-0) Credit, 3 hours. A study of interpretation technique and program building for the individual reader, with emphasis on performance.

drama

5349 Studies in Advance Technical Theatre Production Techniques. (3-2) Credit, 3 hours. The study of advanced contemporary staging, construction, and lighting techniques, with attention given to the use and operation of theatre equipment. Practical experience in University productions as required for one semester.

5357 Theatre Design. (3-2) Credit, 3 hours. A course in the design of the complete play, with emphasis on styles of staging, setting, lighting and properties, and their relationship to the complete production. In addition, the graduate student will study and execute advanced design concepts. Practical experience in University productions required for one semester.

*5360 Problems in Theatre. (3-0) Credit, 3 hours. Designed to give supervised experience to qualified advanced students in theatre history, playwriting, directing, acting, technical, or other theatre problems. Research problems or actual production problems may be chosen.
5366 Seminar in Theatre History and Literature. (3-0) Credit, 3 hours. This seminar will concentrate on one significant period, locality or trend in world theatre history and literature. The area covered will be chosen on the basis of general student need and interest.

5367 Studies in Dramatic Theory and Criticism. (3-0) Credit, 3 hours. The study of dramatic theory and criticism from Aristotle to the present.

5368 American Theatre and Drama. (3-0) Credit, 3 hours. Studies in the development of the American theatre and drama from colonial days to the present.

5369 Contemporary World Theatre and Drama. (3-0) Credit, 3 hours. Studies of current trends in world theatre and drama.

5377 Studies in Advanced Theatre Directing. (3-0) Credit, 3 hours. A study of directors, theories, and problems of directing in the contemporary theatre.

5387 Directing Practicum. (0-3) Credit, 3 hours. A study of, and experience in choosing, preparing and directing a theatre production from analysis to performance. A production in the University's Studio Theatre is required. Attention will be given to theatre organization and management.

5110 Seminar in Speech and Drama. (1-1) Credit, 1 hour. A graduate student majoring in speech or drama is required to absorb a minimum of two semester hours in this course in addition to the standard requirements for the advanced degree.

5300 Problems in Speech and Drama Research. (3-0) Credit, 3 hours. An examination of problems and research techniques in speech and drama. Historical, critical, descriptive, and experimental research approaches will be surveyed, and basic procedures in research report writing will be considered.

5310 Teaching of Speech and Drama. (3-0) Credit, 3 hours. Designed to meet the needs of teachers in the public schools. Emphasis is placed on a well-developed speech and drama program for the grades and high school and consideration of methods and materials for the diagnosing and improving of speech and drama. Enrollees in 5310 will be more especially concerned with teaching speech or drama at the college level.

5320 Directing Speech and Drama Activities. (3-0) Credit, 3 hours. Designed to assist any teacher, whether of speech and drama or some other subject, in directing the speech and drama activities. During the course those in the class will actually direct debate, plays, declamation, and other activities.

5350 Readers Theatre Techniques. (3-0) Credit, 3 hours. A study of methods in script development and production techniques for Readers Theatre.

5370 Studies in Advanced Creative Dramatics for Children. (3-0) Credit. 3 hours. Studies of the methods of creative dramatics and their use in the classroom. Attention is given to creativity and creative teaching.

5399 or 5699 Speech or Drama Thesis. Credit, 3 or 6 hours.

*May be repeated once with different emphasis for additional credit.
school of liberal arts

department of english and philosophy

Effective September 1, 1977: Department of English and Department of Philosophy (Coordinating Board approval March 8, 1977).

graduate faculty

Alexander, Judith Caldwell, Assistant Professor of English. B.A., University of Texas at Arlington; M.A., North Texas State University; Ph.D., University of Arizona.

Brasher, Thomas Lowber, Professor of English. B.A., M.A., Hardin-Simmons University; Ph.D., Louisiana State University.

Brunson, Martha Luan, Professor of English and Chairman of the Department of English and Philosophy. B.S., Northwestern University; M.A., Ph.D., Texas Tech University.

Gravitt, Garland Jack, Assistant Professor of English. B.A., Baylor University; M.A., Southwest Texas State University; Ph.D., Southern Illinois University.

Grayson, Nancy Jane, Associate Professor of English. B.A., Texas Christian University; M.A., Ph.D., The University of Texas at Austin.

Gross, Dalton Harvey, Associate Professor of English. B.A., Luther College; M.A., Ph.D., Southern Illinois University.

Hayes, Elizabeth Gentry, Professor of English. A.B., San Jose State College; M.A., Ph.D., Stanford University.

Heaberlin, Dickie Maurice, Associate Professor of English. B.A., M.A., North Texas State University; Ph.D. The University of Texas at Austin.

Houston, Ralph Hubert, Professor of English. B.A., North Texas State University; M.A., Ph.D., The University of Texas at Austin.

Huffaker, Robert Selwyn, Assistant Professor of English. B.A., Texas A&M University; M.A., Ph.D., North Texas State University.

Laird, Edgar Stockton, Associate Professor of English. B.A, M.A., Southwest Texas State University; Ph.D., Rutgers, The State University.

Lynch, Vernon Eugene, Professor of English. B.A., Sam Houston State University; M.A., Ph.D., The University of Texas at Austin.
Meathenia, Jack Charles, Assistant Professor of English. B.S., M.A., West Texas State University; Ph.D., Duke University.

Medford, Floyd Chester, Assistant Professor of English. B.A., Abilene Christian College; B.D., The University of the South; Th.D., The School of Theology at Claremont, California; Ph.D., The University of Texas at Austin.

Parkin-Speer, Diane, Associate Professor of English. B.A., Lewis and Clark College; M.A., Bowling Green State University; Ph.D., University of Iowa.

Peterson, Norman Clair, Professor of English. B.A., M.A., The University of Texas at Austin; Ph.D., University of Iowa.

Ronan, Clifford John, Assistant Professor of English. B.A., Amherst College; M.A., Ph.D., University of California at Berkeley.

Rosenbalm, John Olmsted, Assistant Professor of English. B.A., M.A., Ph.D., North Texas State University.

Stedman, Nathan Alexander, III, Assistant Professor of English. B.B.A., The University of Texas at Austin; M.A., Texas Christian University; Ph.D., Florida State University.

Stevens, David Ranald, Professor of English. B.A., M.A., Ph.D., The University of Texas at Austin.

Thompson, Robert Bryan, Assistant Professor of English. B.S. in Ed., B.A., The University of Texas at Austin; M.A., Stephen F. Austin State University; Ph.D., The University of Iowa.

Walts, Robert Warren, Professor of English. A.B., Newark College of Rutgers University; A.M., Ph.D., College for Men, Rutgers University.

degree programs

Majors: The Department of English offers two graduate degrees for majors: (1) the Master of Arts degree requiring earned credits for a minimum of 30 hours of work that include a six hour thesis and six to nine hours in a minor and (2) the 36-hour non-thesis Master of Education degree requiring a twenty-one hour concentration in English and a fifteen hour minor (which may be split into minors of six and nine hours). With departmental approval, the student may structure several acceptable patterns of work under each degree plan. The Master of Education degree serves especially well secondary and community college teachers who wish to include the pedagogically oriented courses offered by the Department.

Highly qualified students may apply for permission to substitute a creative writing project for the Master of Arts degree's thesis requirement. Inquiries on this point should be addressed to Dr. Norman Peterson, Professor of English.

Minors: Students whose major study interests are in fields other than English are encouraged to consult with the English Graduate Advisor, Dr. David Stevens, about selecting courses for a minor in English to lend special support to the major field of study.

Financial Aids Program: Graduate students in English may apply to the Department for appointment as either Assistant Instructors (T.A.'s) or Instructional Assistants. Those appointed to either type of teaching devote half time to teaching duties and half time to graduate studies. Inquiries and applications should be directed to Dr. Martha L. Brunson, Chairman of the Department of English. Normally, applications should be filed by March 1 for appointments in the fall.
course offered

*5300 Language Problems in a Multicultural Environment. (3-0) Credit 3 hours. An introduction to the study of multicultural and/or multilingual language and linguistics, with special emphasis on the descriptive, psychological, social, and semantic aspects.

*5310 Studies in English Language and Linguistics. (3-0) Credit, 3 hours. A study of the English language, with special attention to the areas of phonology, morphology, syntax, semantics, dialectology, sociolinguistics, normal language acquisition, and/or writing and spelling systems.

5318, 5319 Effective Communications. (3-0) Credit, 3 hours each. An interdisciplinary study of human communication in which the student learns to interrelate and use the input forms of reading and listening and the output forms of writing and speaking. Neither course may be counted in absolving minimal requirements of the M.A. or M.Ed. degrees. (See Speech.)

*5321 Contemporary Fiction. (3-0) Credit, 3 hours.

**5323 Eminent Lives in Literature. (3-0) Credit, 3 hours. A study of selected works in autobiography and biography with special attention to the art forms used in these works.

**5325 Reflections of Life in the Lore and Literature of the Southwest. (3-0) Credit, 3 hours.

*5331 Studies in American Poetry. (3-0) Credit, 3 hours.

*5332 Studies in American Prose. (3-0) Credit, 3 hours.

**5351 Chaucer and His Time. (3-0) Credit, 3 hours.

*5353 Studies in Medieval English Literature. (3-0) Credit, 3 hours.

*5354 Studies in English Renaissance Literature. (3-0) Credit, 3 hours.

**5355 Shakespeare. (3-0) Credit, 3 hours.

**5358 Milton. (3-0) Credit, 3 hours.

*5359 Studies in Eighteenth Century Literature. (3-0) Credit, 3 hours.

*5364 Studies in the English Romantic Movement. (3-0) Credit, 3 hours.

*5366 Studies in Victorian Poetry. (3-0) Credit, 3 hours.

*5368 Studies in Victorian Prose. (3-0) Credit, 3 hours.

5371 Studies in British Poetry: 1880-1940. (3-0) Credit, 3 hours.

*May not count as credit toward meeting minimum requirements for the M.A. in English without permission of the Chairman of the Department of English and Philosophy.

*May be repeated once with different emphasis for additional credit.

**May not be taken for graduate credit if the undergraduate companion course (4000 level) has been completed.
5381 Studies in Modern British and American Drama: 1900-Present. (3-0) Credit, 3 hours.

*5395 Problems in Literary Criticism. Credit, 3 hours. Open to graduate students on an individual basis by arrangement with the department.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

*May be repeated once with different emphasis for additional credit.
Effective September 1, 1977: Department of Geography and Planning
(Coordinating Board approval March 8, 1977).

graduate faculty

Harrison, James Douglas, Associate Professor of Geography. B.A., M.A., University of Denver; Ph.D., University of Oklahoma.

Hellman, Allen David, Professor of Geography and Chairman of the Department of Geography. B.A., Michigan State University; M.A., Ph.D., The University of Michigan.

degree programs

The Department of Geography offers neither a graduate major nor a graduate minor. Graduate hours are offered in support of graduate programs in Political Science and Education.

courses offered

5312 The Planning Function and Process. (3-0) Credit, 3 hours. The nature, purpose, and scope of planning in the United States, with emphasis on city and town planning. Selected topics for discussion will include community inventory and analysis, the formulation of goals and policies in the development of the comprehensive plan, and plan implementation.

5313 Environmental Management. (3-0) Credit, 3 hours. An analysis of the major causes of environmental deterioration together with the basic strategies of dealing with these problems.

5335 Directed Research. Credit, 3 hours. Individual or group research projects at the advanced level that are not offered in the present curriculum. Permission and project approval must be obtained from the departmental chairman prior to registration. This course may be repeated for credit but a student may not exceed six hours of credit in Directed Research.

5350 Solid Waste Disposal Planning and Management. (3-0) Credit, 3 hours. A survey of the methods of solid waste disposal including waste storage, collection, transportation and disposal, and their short and long range effect on the environment. A practical course in the planning, implementation, and management of alternate methods of sanitary waste disposal.

5360 Seminar in Planning Problems. (3-0) Credit, 3 hours. A critical and indepth examination of several of the problem areas currently facing the planner.
Department of History

Graduate Faculty

Anderson, William Woodrow, Associate Professor of History. B.A., Baylor University; M.A., Ph.D., The University of Texas at Austin. (Latin America)

Brunson, Billy Ray, Professor of History. B.A., M.A., Ph.D., Texas Tech University. (Diplomatic)

Craddock, Emmie, Professor of History and Director of the Honors Program. B.A., Rice University; M.A., Ph.D., The University of Texas at Austin. (Social and Intellectual)

Dunn, Dennis John, Associate Professor of History. B.A., M.A., John Carroll University; Ph.D., Kent State University. (Russia)

Hill, Elston John, Assistant Professor of History. B.A., Azusa Pacific College; M.A., University of California at Los Angeles; Ph.D., University of North Carolina. (Recent U.S.)

Jager, Ronald Burke, Associate Professor of History. A.B., M.A., Baylor University; Ph.D., The University of Texas at Austin. (Constitutional; Urban)

Josserand, Frank Butler, Professor of History. A.B., M.A., Baylor University; Ph.D. The University of Texas at Austin. (Modern Europe; Germany)

Kissler, Betty Jane, Professor of History and Supervisor of Student Teaching. B.A., University of Colorado; M.A., Colorado State College; Ph.D., The University of Texas at Austin. (Latin America)

Liddle, William David, Associate Professor of History. B.A., George Peabody College for Teachers; M.A., Ph.D., Claremont Graduate School. (Early America; 18th Century England)

Pohl, James William, Professor of History. B.A., M.A., North Texas State University; Ph.D., The University of Texas at Austin. (Military)

Pool, William Clayton, Professor of History. B.A., M.A., Ph.D., The University of Texas at Austin. (Texas; Frontier)

Swinney, Everette, Professor of History and Chairman of the Department of History. B.A., Ohio Northern University; M.A., Pennsylvania State University; Ph.D., The University of Texas at Austin. (Civil War and Reconstruction; Historiography)

Wilson, James Arthur, Associate Professor of History. B.A., M.A., Ph.D., University of Arizona. (American Southwest)
The Department of History offers the Master of Arts degree and the Master of Education degree. Normally, the Master of Arts consists of 24 hours of History, including thesis, and 6 hours of graduate work from a minor field. The Master of Education degree consists of at least 21 hours of History and 15 hours of work from a minor field or a split minor with 9 hours from one field and 6 hours from a second field.

Admissions Policy. Unconditional admission to departmental programs is based on a 3.0 or higher average on 24 hours of background (undergraduate) work in history for those seeking a graduate major and a 3.0 average on 18 hours for those seeking a graduate minor. Conditional admission may be available for students with point averages from 2.5 to 2.99 on background work. Students with point averages below 2.5 in history are not normally admissible to departmental programs.

Purpose. The graduate program in history is designed to prepare students for careers in professional history (teaching and/or research and writing) and to provide a general liberal arts education for students aiming for positions in business, journalism, government service, and the like. Emphasis is more or less equally placed on the acquisition of historical information and the skills and tools of research.

Financial Aids Program. Graduate assistantships and assistant instructorships paying $3240.00 to $4000.00 are available to capable students. Normally we start beginning graduate students as graders in large sections of the American History survey and then, in the second year, allow them to teach two small sections of their own.

Interested students should contact the Chairman or the Graduate Advisor in the Department of History or write and request the bulletin, Graduate Study in History.

courses offered

5310 Problems in Modern European History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the history of Europe since 1870.

5313 Problems in Early American History: The Age of the American Revolution. (3-0) Credit, 3 hours. A seminar based upon selected topics in the Revolutionary and Early National periods of American history.

5318 Eighteenth Century England: From the Glorious Revolution to Waterloo. (3-0) Credit, 3 hours. A seminar based upon selected topics in political, social, intellectual and economic history of England from 1688 to 1815.

5321 Seminar in the National Period of Latin American History. (3-0) Credit, 3 hours. The history of Latin American countries from the period of their independence to the present. Topics will vary, allowing both a study by country (or countries) and an institutional treatment of the general area.

5322 Seminar in Colonial Latin American History. (3-0) Credit, 3 hours. The colonial history of Latin America approached through a study of the following aspects: aboriginal and Iberian backgrounds; discovery and exploration; political, economic, social institutions of the Ibero-American empires; the independence movements.

5335 Twentieth Century Russia. (3-0) Credit, 3 hours. A seminar based on selected topics in recent Russian history.

5342 Problems in the Social and Intellectual History of the United States. (3-0)
Credit, 3 hours. A seminar based upon selected topics in the intellectual and social history of the United States.

5347 Problems in Texas History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the history of Texas.

5348 Problems in the Diplomatic History of the United States to 1898. (3-0) Credit, 3 hours. A seminar based upon selected topics in the early diplomatic history of the United States.

5349 Problems in the Diplomatic History of the United States since 1898. (3-0) Credit, 3 hours. A seminar based upon selected topics in recent American diplomatic history.

5350 Problems of the Frontier in American History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the history of the frontier in American development.

5351 Problems in Modern American History. (3-0) Credit, 3 hours. A seminar based upon selected topics in United States history since 1877.

5353 Problems in Greater Southwestern History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the history of the Greater American Southwest.

5355 Problems in Southern History. (3-0) Credit, 3 hours. A seminar based upon selected topics in Southern United States history.

5357 The Gilded Age. (3-0) Credit, 3 hours. A seminar based upon selected topics in late nineteenth century American history.

5360 American Historiography. (3-0) Credit, 3 hours. A study of the literature of American history with some attention to the philosophies of history and the principles of historical research.

5362 Problems in American Military History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the military history of the United States.

5365 Seminar in Problems of Contemporary Europe. (3-0) Credit, 3 hours. An intensive study of problems of Europe since 1919, based on independent research and writing by the student.

5367 Problems in the American Civil War. (3-0) Credit, 3 hours. A seminar based on selected topics in the American Civil War.

5368 The Era of Reconstruction, 1865-1877. (3-0) Credit, 3 hours. A seminar based upon selected topics in post-Civil War American history.

5370 Minority Groups in American History. (3-0) Credit, 3 hours. A seminar based upon selected topics in the history of the various ethnic and racial groups within American society.

5390 Problems in Historical Research. (3-0) Credit, 3 hours. This course is open to graduate students on an individual basis at any time only by arrangement with the division.

5399 or 5699 Thesis. Credit, 3 or 6 hours.
Brister, Louis Edwin, Associate Professor of German and Chairman of the Department of Modern Languages. B.A., Mississippi State University; M.A., Ph.D., The University of Texas at Austin.

Cartwright, Robert McLain, Assistant Professor of Spanish. B.S., University of Illinois at Urbana; M.A., University of Wisconsin at Madison; Ph.D., Saint Louis University.

Champion, James Joseph, Assistant Professor of Spanish. B.S., Michigan State University; M.A., Ph.D., University of Michigan.

Davis, Richard Lee, Associate Professor of Spanish. B.A., M.A., Ph.D., The University of Texas at Austin.

Fischer, Robert Allen, Assistant Professor of French. B.A., M.A., University of Cincinnati; Ph.D., Pennsylvania State University.

Galvan, Robert Arispe, Professor of Spanish. B.A., Trinity University; M.A., The University of Texas at Austin; Ph.D., Tulane University.

Heudier, Jean-Pierre, Assistant Professor of French. B.A., University of Montana; M.A., Brigham Young University; Ph.D., University of Colorado.

Kremkus, Manfred, Assistant Professor of German. A.B., A.M., Ph.D., University of Michigan.

McCoy, Ingeborg Ruberg, Assistant Professor of Spanish. A.A., San Antonio College; B.A., Southwest Texas State University; M.A., Ph.D., The University of Texas at Austin.

Reeves, Dona Rae, Professor of German. B.A., M.A., Ph.D., The University of Texas at Austin.

Ugalde, Sharon Elizabeth, Assistant Professor of Spanish. B.A., University of California at Davis; M.A., Ph.D., Stanford University.

degree programs

The Master of Arts in Teaching is designed specifically to meet the needs of foreign language teachers at the secondary and community college levels. It differs significantly from the traditional M.A. degree program in that it features a six-week internship instead of the traditional thesis. The program provides language teachers with an opportunity to reinforce their competence in the foreign language skills, their familiarity with the foreign culture, and their mastery of current language teaching methods. The MAT degree entails fifteen hours concentration in the language subject area, nine hours of linguistics, six hours in a supporting area, six hours of internship and foreign study, and a minimum reading knowledge of a second foreign language. The program is specifically oriented toward language teaching; it emphasizes practice as well as theory, and the application of knowledge as well as research.
The Master of Arts degree in Spanish is available to students who wish to engage in a more traditional program of literary and language studies. This degree entails twenty-one to twenty-four hours in Spanish, including the thesis, and six to nine hours in a supporting area.

courses offered

applied linguistics and language learning

5311 Applied Linguistics. (3-0) Credit, 3 hours. Introduction to language theories and their implications for second language teaching; comparison of native and target languages and applications of linguistic principles to teaching methods.

5313 Language Media and Testing. (3-0) Credit, 3 hours. Training and practice in writing performance objectives and instructional sequences; use and demonstration of modern media and techniques in teaching and testing language skills.

5315 Psycholinguistics. (3-0) Credit, 3 hours. Studies and comparisons of first and second language acquisition, aspects of bilingualism, interrelationship of language and culture, and their implications for the language learner.

french


*5305 Studies in Literary Genres. (3-0) Credit, 3 hours.

*5306 Studies in Early French Culture and Thought. (3-0) Credit, 3 hours. Various cultural themes in the works of representative scholars, writers, and artists. a) From the Beginnings through the Renaissance. b) From the seventeenth century through the eighteenth century. Individualized readings and reports.

*5307 Studies in Modern French Culture and Thought. (3-0) Credit, 3 hours. Various cultural themes in the works of representative scholars, writers, artists, and in the media. a) The nineteenth century. b) The twentieth century. Individualized readings and reports.

*5309 Advanced Conversation Composition and Grammar. (3-0) Credit, 3 hours. A course designed to improve oral and written skills. Topic A. Conversation: Practice based mainly on contemporary mass media materials. Topic B. Grammar and Composition: Practice in translation, stylistics and free composition.

*5390 Individual Studies in French Literature. (3-0) Credit, 3 hours. Students pursue a program of research in periods, genres, authors, or literary criticism in line with their own initiative and interest. Intensive reading and individual research.

Prerequisite: Approval of the Chairman of the Department of Modern Languages.

*May be repeated once with different emphasis for additional credit.
5600 Internship and Foreign Study. (6-0) Credit, 6 hours. An independent study project of at least six weeks duration at a foreign institution consisting of lectures, observations, and interviews relevant to the student's major and the interests of the language teacher.

Prerequisite: Completion of all course requirements for the Master of Arts in Teaching French.

**German**

*5304 Studies in the German Language.* (3-0) Credit, 3 hours. Studies in the history and structure of modern German. Topic A.: History of German with emphasis on developments that underlie problem areas in modern German. Topic B.: Structure of modern German with attention given to problems in the teaching of German.

*5305 The Age of Revolution.* (3-0) Credit, 3 hours. An intensive examination of the social, cultural, and political institutions and forces of the period, emphasizing outstanding literary works of Enlightenment, Classicism, and Romanticism, and encompassing a survey of the periods of a) Despotism and Idealism, and b) Romanticism. Collateral readings and reports.

*5306 Foundations of German Civilization.* (3-0) Credit, 3 hours. An intensive study of the development of German culture and civilization as documented by the extant works of the periods, encompassing a survey a) From the Beginnings to the Reformation, and b) From the Reformation to the Age of Absolutism. Collateral readings and reports.

*5307 Modern German Culture and Literature.* (3-0) Credit, 3 hours. A comprehensive investigation of the forces that shaped modern Germany as reflected by significant works of major writers and thinkers of the periods a) From 1848 to 1918, and b) From the Weimar Republic to the Present. Collateral readings and reports.

*5309 Advanced Conversation, Composition and Grammar.* (3-0) Credit, 3 hours. A course designed to improve oral and written skills. Topic A: Conversation: Practice based mainly on contemporary mass media materials. Topic B: Grammar and Composition: Practice in translation, stylistics and free composition.

*5390 Individual Studies in German Literature.* (3-0) Credit, 3 hours. Students pursue a program of research in periods, genres, authors, or literary criticism in line with their own initiative and interest. Intensive reading and individual research.

Prerequisite: Approval of the Chairman of the Department of Modern Languages.

5600 Internship and Foreign Study. (6-0) Credit, 6 hours. An independent study project of at least six weeks duration at a foreign institution, consisting of lectures, observations, and interviews relevant to the student's major and the interests of the language teacher.

Prerequisite: Completion of all course requirements for the Master of Arts in Teaching German.

**Spanish**

*5304 Studies in the Spanish Language.* (3-0) Credit, 3 hours. Studies in the history and structure of modern Spanish. Topic A: History of Spanish with emphasis on the developments that underlie problem areas in modern Spanish. Topic B: Structure of modern Spanish with attention given to problems in the teaching of Spanish.
*5306 Studies in Spanish Peninsular Literature. (3-0) Credit, 3 hours. The study of selected masterpieces of Spanish literature which reflect lasting values. a) Medieval and Golden Age. An exploration of the duality of realism and idealism in selected works. b) Modern Spanish Thought. The individual and his relationship to the history and society of Spain through literature.

*5307 Studies in Spanish American Literature. (3-0) Credit, 3 hours. An examination of outstanding modern works relevant to social, historical, and political development. a) Central and South America. Emphasis is given to the works of three Nobel Prize winners, Gabriel Mistral, Pablo Neruda, and Miguel Angel Asturias. b) Mexican and Mexican-American. Emphasis placed on the interrelationship of the two literatures.

*5308 Studies in Hispanic Culture. (3-0) Credit, 3 hours. Various aspects of culture as reflected in works of representative scholars, writers, artists, and in the mass media. a) Spanish Peninsular. Civilization from its origins to the present with emphasis on lasting traditions. b) Spanish American. Selected historical developments, social problems, art and folklore of the Mexican-Americans, Mexicans, and Hispanic peoples of Central and South America.

*5309 Advanced Conversation, Composition and Grammar. (3-0) Credit, 3 hours. A course designed to improve oral and written skills. Topic A. Conversation: Practice based mainly on contemporary mass media materials. Topic B. Grammar and Composition: Practice in translation, stylistics and free composition.

*5390 Individual Studies in Spanish and Spanish-American Literature. (3-0) Credit, 3 hours. Students pursue a program of research in periods, genres, authors, or literary criticism in line with their own initiative and interest; intensive reading and individual research.

Prerequisite: Approval of the Chairman of the Department of Modern Languages.

5600 Internship and Foreign Study. (6-0) Credit, 6 hours. An independent study project of at least six weeks duration at a foreign institution consisting of lectures, observations, and interviews relevant to the student's major and the interests of the language teacher.

Prerequisite: Completion of all course requirements for the Master of Arts in Teaching Spanish.

*5399 or 5699 Thesis. Credit, 3 or 6 hours.

*May be repeated once with different emphasis for additional credit.
The Department of Political Science offers a choice of three degree programs. The Master of Arts degree consists of 21-24 hours of Political Science, including the thesis, and a 6-9 hour minor. The Master of Education degree is a non-thesis program consisting of a 21 hour major in Political Science and a 15 hour minor, or a split minor of 9 and 6 hours. The degree of Master of Public Administration consists of an interdisciplinary core of 30 hours including thesis and internship, and a 9 hour resource area selected from Administration of Criminal Justice Systems, Administration of Allied Health Sciences, Management Information Systems, Public Finance Administration, Public Personnel Administration, and Urban Planning. A non-thesis option is available. Admission
to the MPA program requires an undergraduate GPA of 3.0 or a 2.5 coupled with at least one year’s service in a responsible administrative position in government.

For those baccalaureate graduates who desire to prepare for careers as paralegals or lawyers' assistants, a 12 hour post-baccalaureate program is offered with specialization in the areas of: Corporations; Administrative Law; Litigation; Wills, Trust, and Estates; and Real Estate and Mortgages. Faculty are practicing members of the Texas Bar with specialization in their areas of instruction.

With a full-time graduate faculty of eleven and a part-time faculty of five, the student has the opportunity for a close relationship with his professors. The Department sponsors a graduate faculty-student symposium which brings noted authorities to campus on a monthly schedule for informal dinner meetings with students and faculty.

The opportunity for graduate students to become involved in ongoing applied research is provided through the Community Development Institute, the service, consulting, and training arm of the department. Such ongoing activities as the preparation of 701 master plans; the development of in-house training programs; organizational development seminars, and a wide variety of applied research activities with federal, state and local governments provide graduate students with first hand experience in dealing with a wide spectrum of political, social, economic and management problems.

Research facilities include a DEC 10 with CRT terminal in the department. The university is a depository for federal and state government documents as well as a member of CORAL (Council of Research and Academic Libraries), TIE (Texas Information Exchange) and the Center for Research Libraries in Chicago. A basic governmental data bank covering local and regional governments in the central and borderlands regions of Texas is in its sixth year of operation.

Internships in federal, state or local government are provided for MPA students.

courses offered

*5301 Problems in American Foreign Relations. (3-0) Credit, 3 hours. A seminar based on selected topics in American foreign policy and United States involvement in international relations.

*5304 Problems in Political Theory and Methodology. (3-0) Credit, 3 hours. A seminar for the exploration of problems in political theory and/or the methodology of contemporary political science.

*5305 Problems in Comparative Government and Politics. (3-0) Credit, 3 hours. The intensive study of selected areas in comparative political institutions.

5307 Scope and Methods of Political Science. (3-0) Credit, 3 hours. Critical examination of history, scope and important concepts of political science. Introduction to behavioralism, behavioral techniques, and various fields of political science. Consideration of important research topics and procedures. Course is designed especially for entering graduate students.

5309 The Public Management Profession: Theory and Practice. (3-0) Credit, 3 hours. Concepts of organization and management; planning and organizing work; supervising work; principles for improving methods of work; principles for the selection and orientation of employees; the development and maintenance of discipline; importance of supervisory counseling; employee evaluation; interorganizational cooperation; and the importance of public relations. An examination of the ethics of Public Management.
5310 Problems in Public Administration. (3-0) Credit, 3 hours. Such matters as the organization and management of the machinery for executing public policies, bureaucracy, the civil service, span of control, and Hoover Commission-type inquiries.

5312 Seminar in Public Finance. (3-0) Credit, 3 hours. Advanced study of public expenditures and their effects on economic growth in conjunction with an intensive look at the theories of taxation and tax incidence.

5313 Problems in Public Finance Administration. (3-0) Credit, 3 hours. A seminar for the exploration of such topics as financial policy determination, responsibility for public finance administration, concepts of budgeting, budget administration, accounting and financial reporting, auditing, treasury and tax administration and debt administration.

5315 Problems in Public Personnel Administration. (3-0) Credit, 3 hours. Analyses and evaluations of major personnel management problems in government; employee-management relations; inter-agency and inter-governmental relationship. Impact of automation. Evaluation of personnel systems.

5316 Collective Bargaining in the Public Service. (3-0) Credit, 3 hours. An examination of the historical development of public employee unions and the reaction of public employers. The legal position of public laws concerning collective bargaining arguments as well as an analysis of organizing procedures and strategy on the part of public managers will be covered. The effect of collective bargaining agreements on personnel policy development.

5320 Problems in State and Local Government. (3-0) Credit, 3 hours. Exploring the areas of urban affairs, metropolitan politics, inter-state relations, intra-state relations, county problems, and local affairs.

5330 Problems in Public Law. (3-0) Credit, 3 hours. Problems in the areas of constitutional interpretations, court cases, judicial processes, and general matters of law.

5331 Police Administration. (3-0) Credit, 3 hours. The identity of the police organization as an open system, and the analysis of current behavioral research for the purpose of discovering its appropriateness for upgrading the effectiveness and efficiency of police operations. Emphasis on bridging the gap between concepts and reality.

5332 Police Administration Decision Making. (3-0) Credit, 3 hours. The identity of administrative rationality, its growth and application in police operations. Emphasis is placed on the examination of the dynamics of personal values, politics, and interpersonal relations as they affect the environment of administrative decision making.

5340 Problems in American Public Policy. (3-0) Credit, 3 hours. Problems arising in the areas of political decision-making, executive-legislative relationships, functions of government, and regulatory activities of the government.

5350 Problems in American Politics. (3-0) Credit, 3 hours. Problems arising with respect to parties, legislation, the presidency, and political behavior.

5360 Problems in International Politics. (3-0) Credit, 3 hours. A course dealing with selected topics in the field of international politics.

*May be repeated once with different emphasis for additional credit.
*5361 Problems in International Law and Organization. (3-0) Credit, 3 hours. A course dealing with selected topics in international law and/or international organization.

5370 Internship in Government. (3-0) Credit, 3 hours. Practical experience in the ongoing work of a selected governmental unit. The student will be assigned to a unit of state, federal, regional or local government. A research paper dealing with the internship experience and written under the direction of a faculty member will be a course requirement. Evaluation will be based upon the research paper and work performance. Course may be repeated one time for additional internship credit.

*5380 Economic and Social Problems of International Relations. (3-0) Credit, 3 hours. A course dealing with selected topics in the economic and social fields of international relations.

5382 Problems in World Political Geography. (3-0) Credit, 3 hours. A course dealing with selected topics in geopolitics and world political geography.

*5398 Directed Reading and Research. (3-0) Credit, 3 hours. Advanced reading and/or research on various topics in Political Science under the direction of a graduate faculty member.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

Courses offered in the Lawyer's Assistant Program

5190 Introduction to Law. (3-0) Credit, 3 hours. A study of statutory and case law to familiarize the student with the nature, meaning and sources of the law in Texas; the organization of the Texas legal system; law as a business, including the economics of litigation, time costs and billing systems; legal trends; employee relationships; law office problems; and professional ethics.

5291 Legal Research. (3-0) Credit, 3 hours. A study of the American and Texas legal system including the courts and legislature; primary and secondary sources of the law including finding tools; judicial reports including court, federal and state reports and citation forms; case finding including federal, state and supreme court digests and encyclopedias; citators, such as Shepard Citations and digests; annotated law reports; legal periodicals, including periodical indexes and research procedure; the nature, function and characteristics of treatises; research procedures; state and federal administrative law; federal, state and local court rules; English legal research of Great Britain and Canada; research aids.

5392 Corporations. (3-0) Credit, 3 hours. A study of the federal and Texas law relative to corporations with particular emphasis on the preparation of initial and amended articles of incorporation, satisfaction of state filing requirements, preparation of drafts of stock certificates and securities, the maintaining of stock ledgers and books, the preparation of draft resolutions authorizing cash and stock dividends and stock splits, the drafting of employment agreements, and other activities necessary to the maintenance, merger and closing of corporations.

*May be repeated once with different emphasis for additional credit.
5393 Estates and Trusts. (3-0) Credit, 3 hours. A study of the Texas law regarding estates and trusts with emphasis on the preparation of documents relating to the administration of estates.

5394 Litigation. (3-0) Credit, 3 hours. A study of the statutory and case law relative to civil and criminal procedure in order to develop an understanding of the preparation of litigation.

5395 Real Estate. (3-0) Credit, 3 hours. A study of the Texas laws concerning real property, conveyances, recordation, taxation, and sales regarding real property. The student will become familiar with the various records maintained dealing with real property by public officials and will develop an understanding of the procedures by which titles are searched.
the progressive university
with a proud past
department of sociology

graduate faculty

Corrie, Walter Samuel, Jr., Professor of Sociology. B.A., M.A., Baylor University; Ph.D., State University of Iowa.

Franklin, Billy J., Professor of Sociology and Dean of the School of Liberal Arts (Acting Dean of the Graduate School, 1976-1977). B.A., M.A., Ph.D., The University of Texas at Austin.

Matlock, Donald Thomas, Assistant Professor of Sociology. B.S., M.S., North Texas State University; Ph.D., The University of Texas at Austin.

Newsom, Rollo Kern, Associate Professor of Sociology and Chairman of the Department of Sociology. B.S., The University of Texas at Austin; M.S., North Texas State University; Ph.D., The University of Texas at Austin.

O’Connell, John Joseph, Associate Professor of Sociology. A.B., M.A., S.T.B., St. Louis University; Ph.D., Loyola University.

Schultz, Clarence Carven, Professor of Sociology. B.S., M.A., Southwest Texas State University; Ph.D., University of Texas at Austin.

Short, Alvin Phillip, Assistant Professor of Sociology. B.S., Southwest Missouri State College; M.A., Ph.D., Emory University.

Standley, James O., Assistant Professor of Sociology. B.S., Stephen F. Austin State University; M.A., Sam Houston State University; Ph.D., Texas A&M University.

degree programs

The basic goal of the Master of Arts in Teaching is to enhance the instructional competencies of sociology teachers in public secondary schools and community colleges. The program is open both to those who wish to extend their undergraduate training in sociology and those who want to acquire sociology as a first or second teaching field. Individuals without secondary certification in sociology may combine the graduate program with selected required undergraduate courses to obtain certification in sociology. Other students may combine graduate instruction in sociology with supporting work in Junior College Education to achieve competencies for junior college teaching. Students not having undergraduate sociology training in principles (introduction), theory, statistics, and research must complete undergraduate courses in each of these areas. Dependent on the extent of a student’s undergraduate training in sociology or related fields, some may be permitted to take up to six hours of selected graduate courses before completing these undergraduate requirements.

The basic degree requirements are 37 semester hours, including Soc. 5100, 5310, and 5380. Students who so desire may expand the sociological essay (Soc. 5380) into a regular research thesis (Soc. 5399). An evaluative exam will be required after the completion of one (FTE) semester of graduate courses, including Soc. 5100. The degree may be obtained by completing:
1. Twenty-two hours in sociology and nine hours in a first and six hours in a second minor. The minors may be selected from teaching areas for which the individual is already certified at the secondary level, or may be divided between a second teaching field and a substantive area of Education.

2. Twenty-five hours in sociology and twelve hours in a minor either in a second teaching field or a substantive area of Education such as Junior College Education.

3. Twenty-eight hours in sociology and nine hours of supporting work in a second teaching field or in an area of specialization in Education such as Junior College Education or Counseling and Guidance.

Sociology may be included as a minor field or supporting area of graduate studies in various master’s programs. Sociology is a required resource area for students in graduate programs in Counseling and Guidance, Educational Administration, Reading, and Public Administration.

Financial Aids Program: The Department of Sociology provides financial aid by employing graduate students as student assistants and research assistants. In addition, the Department employs certain qualified students as Assistant Instructors when positions are available.

courses offered

5100 Pro-Seminar in Sociology. (1-0) Credit 1 hour. An examination of major characteristics and contemporary issues in sociology as a scientific discipline. The course will serve as an overview of the discipline and a preview of the demands and expectations involved in the MAT in Sociology. All graduate students majoring in sociology are required to take this course the first long term they are enrolled in the program.

5310 Teaching Sociology. (3-0) Credit 3 hours. Objectives, methods, and materials of instruction in the sociology curriculum. Relation of sociology to other disciplines.

5311 Selected Problems in Sociology Instruction. (3-0) Credit 3 hours. Seminar or individual study projects concerned with selected problems in the teaching of sociology.

5316 Seminar in Deviation and Social Problems. (3-0) Credit 3 hours. A systematic analysis of contemporary social problems and various types of social deviation. Emphasis is upon the socialization process as it relates to social problems and human deviation. The Sociological explanation of underlying factors will be stressed.

5319 Seminar in Social Psychology. (3-0) Credit, 3 hours. A critical appraisal of the major theories and theorists found in Social Psychology with emphasis on their application to contemporary social and psychological issues.

5320 Seminar in Demography. (3-0) Credit, 3 hours. A seminar in the study of population with emphasis on sources of demographic data, techniques of demographic analysis, and population composition and forecasts.

5337 Seminar in the Family. (3-0) Credit 3 hours. An analysis of selected topics with respect to contemporary family structure and processes.

5343 Seminar in Criminology. (3-0) Credit 3 hours. An analysis of theories and research related to the crime problem with particular emphasis upon the United States. Emphasis will include a study of the role of punishment, corrections, and the reform of
offenders. Special consideration will be given to influential social conditions which play a part in crime causation and prevention.

5353 Seminar in the Community. (3-0) Credit, 3 hours. A study of contemporary urban society with emphasis on understanding the social structure as a prerequisite to planning and problem solving at the community level.

5360 Seminar in Social Change. (3-0) Credit, 3 hours. An intensive examination of social change in selected problematic areas of current social concern, relating these changes to broader theories of social change, and giving attention to major research studies in these areas.

5363 Seminar in Medical Sociology. (3-0) Credit 3 hours. A seminar on selected topics of human health and health care organizations. Topics to be stressed include: social causes and consequences of morbidity and mortality, professionalization and socialization of health care practitioners, organization of health institutions and demographic changes in health problems and needs.

5370 Seminar in Multi-Cultural Relations. (3-0) Credit 3 hours. An analysis of relationships between groups which vary in ethnic, socio-cultural, and religious backgrounds. Concentration will be directed toward the development of social and educational methods which will serve to increase understanding of and facilitate working with multi-cultural groups.

5373 Workshop in Sociology. (3-0) Credit 3 hours. Selected topics in sociology for intensive examination utilizing a variety of sociological resources and methods.

5380 Sociological Essay. (3-0) Credit 3 hours. Directed study of a specific sociological topic requiring the student to apply skills and knowledge gained in course work. For those students electing to complete a thesis the essay will constitute a thesis research proposal.

5399 Thesis. (3-0) Credit 3 hours.
school of science

department of biology

graduate faculty

Alexander, Mary Louise, Professor of Biology. B.A., M.A., Ph.D., The University of Texas at Austin. (Genetics-mutagenesis)

Aron, Gary Michael, Assistant Professor of Biology. B.S., M.S., St. John's University; Ph.D., The Pennsylvania State University. (Microbiology, Virology)

Baccus, John Thomas, Assistant Professor of Biology. B.S., M.A., Midwestern University; Ph.D., North Texas State University. (Wildlife, Community Ecology)

Benjamin, Caroline Pitcher, Assistant Professor of Biology. B.A., Harpur College; M.A., Ph.D., Indiana University. (Embryology and Developmental Biology)

Brown, Roger Fulton, Assistant Professor of Biology. B.S., Ph.D., Colorado State University. (Mammalian Cellular Physiology and Biochemistry)

Davis, William King, Associate Professor of Biology. B.S., M.A., Southwest Texas State University. (Vertebrate Natural History)

Edwards, Sidney William, Professor of Biology. B.S., M.A., George Peabody College for Teachers; Ph.D., Vanderbilt University. (Vertebrate Anatomy)

Emery, William Henry Perry, Professor of Biology. B.S., Rhode Island State College; M.S., University of Connecticut; Ph.D., The University of Texas at Austin. (Cytotaxonomy)

Gary, Roland Thacher, Professor of Biology and Supervisor of Student Teaching. B.S., M.A., Southwest Texas State University; Ph.D., George Peabody College for Teachers. (Malacology, Science Education)

Hannan, Herbert Herrick, Professor of Biology. B.S. in Ed., Southwest Texas State University; M.A.T., Brown University; M.A., Southwest Texas State University; Ph.D., Oklahoma State University. (Limnology)

Horne, Francis Ray, Associate Professor of Biology. B.S., Texas Tech University; M.S., Ph.D., The University of Wyoming. (Invertebrate Physiology and Biochemistry)

Huffman, David George, Assistant Professor of Biology. A.B., West Virginia University; M.S., Marshall University; Ph.D., University of New Hampshire. (Fish Parasitology)
Koehn, Robert Dean, Assistant Professor of Biology. B.S., Bethel College; M.S., Kansas State Teachers College; Ph.D., The University of Texas at Austin. (Mycology, Phycology)

Lambert, Ruie Dale, Assistant Professor of Biology and Supervisor of Student Teaching. B.S., Southwest Texas State University; M.Ed., Ph.D., The University of Texas at Austin. (Science Education and Teacher Education)

Longley, Glenn, Assistant Professor of Biology. B.S., Southwest Texas State University; M.S., Ph.D., University of Utah. (Limnology, Pollution Biology)

Meyer, George Herbert, Assistant Professor of Biology. B.S., Baylor University; M.A., The University of Texas at Austin. (Microbial Physiology)

Mills, Roy Clayton, Assistant Professor of Biology. B.S., Southwest Texas State University; M.S., Ph.D., Oklahoma State University. (Mammalian Physiology)

Norris, William Elmore, Jr., Professor of Biology and Vice President for Academic Affairs and Dean of the University. B.S., Southwest Texas State University; Ph.D., The University of Texas at Austin. (Plant and General Physiology)

Schneider, Edward Lee, Assistant Professor of Biology. B.S., M.Sc., Central Washington State College; Ph.D., University of California at Santa Barbara. (Plant Anatomy and Morphology)

Sissom, Stanley Lewis, Associate Professor of Biology. B.S., M.S., North Texas State University; Ph.D., Texas A & M University. (Invertebrate Zoology and Ecology)

Tuff, Donald Wray, Professor of Biology. B.A., San Jose State Univ.; M.S., Washington State University; Ph.D., Texas A & M University. (Entomology, Parasitology)

Whitenberg, David Calvin, Associate Professor of Biology. B.S., M.S., Ph.D., Texas A & M University. (Plant Physiology and Biochemistry)

Whiteside, Bobby Gene, Associate Professor of Biology. A.S., Eastern Oklahoma A & M College; B.S., M.A., Ph.D., Oklahoma State University. (Ichthyology, Fisheries Management)

Young, Willard Cooper, Associate Professor of Biology and Chairman of the Department of Biology. B.S., M.A., The University of Texas at Austin; Ph.D., University of Colorado. (Freshwater Ecology)

degree programs

Graduate students in Biology may elect one of four degree options: the Master of Science with or without a thesis, the Master of Arts, and the Master of Education.

The Master of Science and Master of Arts degrees, each including a thesis, require at least 24 hours of coursework. The major and minor will consist of 15-18 hours and 9-6 hours respectively. In addition to the 24 hours a minimum of six hours of Thesis (5399, 5699), three hours of Fundamentals of Research (5395), and three one-hour seminars (5110) are required. The M.A. degree may include a minor from the sciences while the M.S. degree requires that the minor must be from the sciences. The M.Ed. degree generally requires the minor to be taken outside the sciences. The 36 hours non-thesis Master of Science degree is available only to those individuals having a minimum of two years of teaching experience and who intend to continue teaching as a career.
Students working toward the M.Ed. degree do not take Fundamentals of Research (5395) nor Thesis (5399, 5699). The requirement of three one-hour seminars does apply. The major and minor will consist of a minimum of 21 hours and 15 hours respectively. A split minor of nine hours (first minor) and six hours (second minor) is also available though rarely taken by a Biology major.

The biology major selecting a minor in science has the following options: aquatic biology, marine biology, biochemistry, mathematics, chemistry or physics.

The minor in marine biology will require six hours to be taken at Moody College of Marine Biology, Galveston, Texas and/or The University of Texas Marine Institute, Port Aransas, Texas. Departmental approval must be obtained before a student begins off-campus coursework in marine biology.

Thesis problems are available in any area of special competence represented by Biology Department faculty members. In general, the following areas are available: anatomy (plant and vertebrate), aquatic biology, cytology, developmental biology, ecology, genetics, invertebrate zoology, microbiology, virology, mycology, parasitology (animal), phycology, physiology and biochemistry, science education, taxonomy (plant and animal), and wildlife management.

Financial Aids Program: Financial assistance through the Biology Department is available in the form of Graduate Laboratory Instructorships. The basic stipend is up to $3,654 for nine months and support is limited to two years. Applications for Instructorships are available from the departmental chairman and completed applications are due by March 15th to be considered for the following school year. A limited number of Research Assistantships are also available in certain areas.

courses offered

5110 Seminar in Biology. (1-0) Credit, 1 hour. A graduate student majoring in biology is required to absolve a minimum of two semester hours in this course in addition to the standard requirements for the advanced degree. (S, F)

5301 Evolution. (3-2) Credit, 3 hours. Basic genetic principles applied in the interpretation of such phenomena as natural selection, adaptation, genetics of populations, speciation and man's future. Consideration is given to the origin of life, nature of chromosomal variation, evolution of genetic systems, and certain other selected topics. Laboratory is by special arrangement, averaging about two hours per week. Open to students who have completed Biology 3450 or its equivalent. (S, SS)

5305 Nature Study. (3-3) Credit, 3 hours. Planned for elementary teachers who wish to use nature materials in the teaching of elementary science; local environmental resources; the study of birds, insects, trees, flowers, and elementary astronomy. May not be credited toward a biology major or minor or secondary teaching field. (F, S)

5310 Field Biology of Plants. (2-3) Credit, 3 hours. Basic ecological relationships and natural history of plants, including geomorphology, historical geology, and plant geography: special emphasis on plant-soil-water relationship to develop better conservation concepts, and on the soils, vegetational regions, and surface geology of central Texas. The laboratory will include field trips to observe and study the nature of different vegetational regions. Students will make a permanent representative collection of plant groups. (F, SS)

5312 Radiation Biology. (2-3) Credit, 3 hours. A review of the physical theory of ionizing radiation important to living organisms. Survey of the effects of ionizing radiations on biological systems. Lectures and demonstrations on the effects of ionizing
radiations on organisms. The use of radioactive materials in experimental biology will be introduced. (F)

5313 Parasitology. (3-3) Credit, 3 hours. A study of the biology and biological significance of the common parasites of man and animals. (S)

5315 Ichthyology. (2-3) Credit, 3 hours. An introduction to the study of morphology, taxonomy, natural history, and evolution of fish. Field trips will be made to collect study specimens, and laboratory periods will be devoted to morphological and systematic analyses. (F, SS)

5318 Topics in Botany. (3-2) Credit, 3 hours. The course will cover subject matter in the areas of anatomy, cytology, ecology, morphology, mycology, phycology, physiology, and taxonomy. May be repeated for credit in different areas.

5319 Topics in Ecology. (3-3) Credit, 3 hours. Significant concepts of ecology are studied in depth in areas that are still unknown or yet to be fully understood.

5320 Field Biology of Animals. (2-3) Credit, 3 hours. Basic environmental relationships and natural history of invertebrate and vertebrate animals; special emphasis upon taxonomy, aspects of speciation and biotic provinces. The laboratory will include field trips for the study and collection of animals in their natural habitats. Students will assemble a permanent representative collection of animal groups. (S, SS)

5321 Ornithology. (3-3) Credit, 3 hours. Introduction to the anatomy, behavior, ecology and identification of the birds of Texas. Laboratory will emphasize field studies of birds and their habitat requirements. (S, alternating with 5322)

5322 Mammalogy. (3-3) Credit, 3 hours. A study of the taxonomy, distribution, ecology, behavior, and evolution of mammals with particular emphasis on wild mammals of the Southwest. Laboratory will emphasize anatomy, identification, preparation of specimens, and field exercises in the methods of population analysis. (S, alternating with 5321)

5323 Wildlife Management. (3-3) Credit, 3 hours. Lecture will emphasize applications of the principles of ecology and natural history to the management of wildlife habitats and control of wildlife populations. Laboratory will involve demonstrations, practice exercises with wildlife management techniques and instrumentation, as well as field trips to observe wildlife management projects. (F)

5325 Biometry. (3-0) Credit, 3 hours. Basic principles of statistical methods as applied to biological problems such as sampling techniques, analysis of data, experimental design and population dynamics. Emphasis will be on practical application. (S, SS) Prerequisite: One year of mathematics.

5330 Experimental Techniques. (2-3) Credit, 3 hours. Methods applicable in biological investigations; special emphasis on respiratory techniques and other methods specifically related to cell physiology; library work, as well as the reporting of scientific data. May be repeated for credit in different biological subject-matter areas.

5335 Fisheries Management. (2-4) Credit, 3 hours. An introduction to techniques and principles involved in the management of fisheries. Laboratory and lecture will include the study of artificial habitats; effects of physiochemical factors on fish; stocking rates; reproduction; carrying capacity; productivity; sampling procedures; population estimates; mortality, survival, and growth rates; commercial and sport fisheries. (S) Prerequisite: Biology 4315-5315 or permission of instructor.
5336 Parasites and Diseases of Fish. (2-3) Credit, 3 hours. The study of animal and microbial parasites of fish. Lecture emphasizes aspects of fisheries medicine; the diagnosis of parasitic and microbial fish diseases and their control through various prophylactic and therapeutic measures. Laboratory involves examinations of local fish for animal parasites and emphasizes examination techniques and parasite identification.

5340 Cell Physiology. (3-3) Credit, 3 hours. Principles basic to cell physiology (colloidal systems, surface phenomena, osmotic pressure, permeability, etc.), and a discussion of protoplasm.

5345 Advanced Genetics. (3-2) Credit, 3 hours. The course includes the study of inheritance of biochemical and physiological characteristics, medical genetics and modifications of genetic systems by radiations and chemicals. The genetic systems of various organisms are included but reference and application to the genetic system of humans are of special interest.

Prerequisite: Biology 3450 and a sufficient background in physiology.
Suggest Biology 4301-5301 and biochemistry.

5350 Topics in Physiology. (3-1) Credit, 3 hours. Selected topics in plant, microbial, and animal physiology. Laboratory is by special arrangement. May be repeated for credit in different biological subject-matter areas.

5355 Developmental Biology. (2-3) Credit, 3 hours. A study of the orderly changes occurring during embryogenesis, gametogenesis, regeneration, aging, and asexual reproduction. The role that growth, differentiation, cellular interactions, movement, and metabolism play in these processes and their control by nuclear and/or cytoplasmic factors will be considered. Laboratory will emphasize experimental manipulation of sea urchin, frog, and chick embryos, fern gametophytes, planaria, and cellular slime molds. (S)

5360 Comparative Physiology. (2-3) Credit, 3 hours. Attention is given to the way in which different organisms perform similar functions. May be repeated for credit in different biological subject-matter areas. (F)

5361 Biology of Water Pollution. (2-3) Credit, 3 hours. Biological aspects of water pollution and purification will be stressed. Special attention given to the response of aquatic communities to changes in water quality. Current pollution problems, toxicity bioassays, biological techniques, and methods for monitoring pollution. (F)

Prerequisite: Biology 2360 and Chemistry 3410 or consent of instructor.

5362 Environmental Impact Analysis. (3-0) Credit, 3 hours. This course includes a review of current governmental regulations regarding environmental impact, the content of environmental impact statements, how to proceed with an impact study, how basic ecological principles apply to impact studies, and the steps in the review process for environmental impact statements. Enrollment by special permission of the departmental chairman.

5365 General Entomology. (3-3) Credit, 3 hours. A survey of the basic principles of morphology, physiology, and taxonomy of insects. Considerable laboratory time will be devoted to a taxonomic study of the common Orders and Families of insects. (F)

5370 Limnology. (3-3) Credit, 3 hours. A study of the physical, chemical, and biological factors affecting productivity in lakes, ponds, and streams. Limnological sampling methods, chemical and biological analysis of samples, and hydrographic surveying are included in the laboratory. (F, SS)

Prerequisite: Biology 2360 and Chemistry 3410, or consent of the instructor.
5380 Cytology and Microtechnique. (3-3) Credit, 3 hours. Microscopic and ultra microscopic cellular structures, their origin, development, and function. Typical and atypical nuclear and cellular reproduction. Various cytological techniques will be demonstrated, including histochemical methods, staining techniques, fluorescent microscopy, and autoradiographic methods. (S)

5390 or 5690 Problems in the Biological Sciences. Credit, 3 or 6 hours. Open to graduate students on an individual basis at any time by arrangement with the faculty member concerned; problems in the areas of systematics and environmental biology, physiology and biophysics, and cytology and genetics.

*5395 Fundamentals of Research. (2-3) Credit, 3 hours. This course is designed to acquaint the beginning graduate student with materials and methods of research in the biological sciences. A graduate student majoring in biology is required to take this course in addition to the standard requirements for the advanced degree.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

5411 Morphology of the Vascular Plants. (3-3) Credit, 4 hours. A course designed to study the structure, life-cycles, and evolution of both fossil and living vascular plants. Emphasis on such topics as the origin of land plants, evolution of the ovule, angiospermy, the flower and fruit. (S) Offered even-number years alternating with 4412-5412, Plant Anatomy.

5412 Plant Anatomy. (3-3) Credit, 4 hours. An introduction to the anatomy of vascular plants. Fundamental descriptive, developmental and comparative aspects of seed plants will be stressed. Latter portion of course designed to emphasize the anatomical adaptations of plants to such environmental factors as soil, water, light and biotic factors. (S) Offered odd-numbered years alternating with 4411-5411, Morphology of Vascular Plants.

5610 Natural History Expedition. Credit 6 hours. The course work consists primarily of a five-week field trip normally conducted during the summer school sessions. Expeditions are made to Mexico, the southwestern deserts, northeastern United States, northwestern United States and Canada. Course emphasis is on geology, geography, climate, flora, fauna, and culture of the area visited. Participants prepare, assemble and maintain expedition equipment and supplies. During the trip emphasis will be placed on museum procedures, identification of biological specimens and group discussions of regional ecology. Type specimens will be placed in the Natural History collection of SWTSU. Open by permission to Graduate biology majors. Enrollment: 5 students. Field trip expenses exclusive of transportation are shared by participants.

*This course may be repeated one time for credit.
department of chemistry

graduate faculty

**Cassidy, Patrick E.**, Assistant Professor of Chemistry. Ph.D., University of Iowa, 1963. (Organic chemistry: polymer synthesis, backbone reactions, property-structure relationships, high-temperature polymers.)

**Compton, Ross D.**, Associate Professor of Chemistry. Ph.D., University of Texas at Austin, 1965. (Inorganic chemistry: determination of structure and bonding in organometallic and inorganic compounds.)

**Cude, Willis A.**, Associate Professor of Chemistry. Ph.D., University of Texas at Austin, 1968. (Inorganic chemistry: transition metal compound, mu-bridged dimers, crystallography.)

**Fitch, John W. Ill**, Associate Professor of Chemistry. Ph.D., University of Texas at Austin, 1965. (Inorganic chemistry: vinylmetallics, quasi-aromatic organometallics and carbenoids.)

**Irvin, James D.**, Assistant Professor of Chemistry. Ph.D., Montana State University, 1970. (Biochemistry: protein metabolism, enzymology.)

**Lippmann, David Z.**, Associate Professor of Chemistry. Ph.D., University of California, 1953. (Physical chemistry: thermodynamics, kinetics.)

**Parks, Archie O.**, Professor of Chemistry and Dean of the School of Science. Ph.D., Louisiana State University, 1957. (Analytical chemistry: spectrophotometry and qualitative analysis.)

**Perry, Reeves B.**, Associate Professor of Chemistry. Ph.D., University of Texas at Austin, 1966. (Physical chemistry: surface chemistry—adsorption kinetics of surfactants on mineral surfaces; interfacial tension of hydrocarbon—aqueous surfactant solutions.)

**Willms, Charles R.**, Professor of Chemistry. Ph.D., Texas A & M University, 1959. (Biochemistry: amino acid and protein chemistry.)

**Yager, Billy J.**, Professor of Chemistry and Chairman of the Department of Chemistry. Ph.D., Texas A & M University, 1962. (Physical organic chemistry: solvent effects on organic reactions.)

**degree programs**

The department offers a program of lectures, laboratories, and research leading to the Master of Science, the Master of Arts, and the Master of Education degrees. These programs are designed to train professional chemists, enhance the training of chemistry teachers, and provide adequate background for further advanced study.

The M.S. degree (30 hours) requires a major of 21-24 hours (includes 6 hr. thesis) and a minor or 9-6 hours in a related science. Generally, an undergraduate major in chemistry is required for admission into this program.
The M.A. degree has the same hour requirement but the minor may be outside the School of Science. A concentration in Biochemistry is open to those with an undergraduate minor in chemistry and a major in biology. The M.Ed. requires 36 hours but no thesis.

**Research Areas.** A ten-member graduate faculty conduct research in numerous areas of the five basic fields of chemistry. Specific research areas include:

- Analytical—Inorganic Qualitative Analysis
- Biochemistry—enzyme isolation, enzyme mechanisms, protein and amino acid chemistry
- Inorganic—Synthesis and structure of organometallic compounds, boron-nitrogen compounds, coordination chemistry
- Organic—Polymer synthesis and characterization, physical organic studies, synthesis
- Physical—Solution properties, X-ray crystallography, surface chemistry.

**Research Facilities.** The department occupies the fourth floor of the Science Building (28,700 sq. ft.). Research instruments available include spectrophotometers (NMR, UV, IR, x-ray, and atomic absorption), liquid and gas chromatographs, osmometers, high-speed centrifuges, magnetic susceptibility apparatus, IBM 1130 computer. A fully equipped machine shop and instrument repair are readily available.

**Financial Aids Program.** Graduate students are encouraged to work as laboratory teaching assistants. These assistantships pay $389/month. A limited number of research assistantships are also available at similar pay.

**courses offered**

5110 Seminar in Chemistry. (1-0) Credit, 1 hour. A graduate student majoring in chemistry is required to absolve a minimum of two semester hours in this course in addition to the standard requirements for the advanced degree.

5189 Postgraduate Research. (0-3) This course is designed for students with one or more degrees in chemistry who desire further experience in the chemistry laboratory. A program of work involving synthesis and/or analysis will be outlined and supervised by a member of the faculty. The course may be repeated as needed.

5262 Chemical Engineering Laboratory. (0-6) Credit, 2 hours. Accurate measurements of gas, fluid and heat flow are made and compared to theoretical predictions. Written reports are required. Prerequisite: 5352. Corequisite: 5362.

5275 Laboratory Techniques in Biochemistry. (1-6) Credit, 2 hours. Experiments illustrating principles and methods of biochemistry are performed. Emphasis is placed on the use of instrumentation employed in research on animal, microbial and plant tissues. Prerequisite: Chemistry 3410, 4375 or 4385. Corequisite: Chemistry 4375 or 4385 or 5375 or 5385.

5325 Selected Topics in Physical Chemistry. (3-0) Credit, 3 hours. Topics are chosen from Chemical Thermodynamics, Chemical Kinetics, Colloid Chemistry, Electrochemistry, Spectroscopy, Nuclear Chemistry, or Quantum Mechanics with the specific topic to be discussed agreed upon prior to registration. Course may be repeated once for additional credit providing a different topic is to be covered. (S, SS-II) Prerequisite: Chemistry 3340.

5336 Methods and Techniques of Physical Sciences. (2-4) Credit, 3 hours. This course includes methods of instruction and laboratory techniques of topics recommended by the Texas Education Agency to be included in a physical science course in public schools. See Physics 5336.
5337 Methods and Techniques of Physical Science. (2-4) Credit, 3 hours. This course includes methods of instruction and laboratory techniques of topics recommended by the Texas Education Agency to be included in a physical science course in public schools. See Physics 5337.

5345 Chemical Bonding and Structure. (3-0) Credit, 3 hours. A study of modern theories of chemical bonding in both organic and inorganic systems. Topics include both valence bond and molecular orbital approaches. Huckel molecular orbital theory and ligand field theory are included.
Prerequisite: Chemistry 1420 and Mathematics 3372.

5350 Selected Topics in Organic Chemistry. (3-0) Credit, 3 hours. Topics are chosen from Mechanisms of Organic Reactions, Physical Organic, Polymer Chemistry, Petroleum Chemistry, or Heterocyclic Chemistry, with the specific topic to be discussed agreed upon prior to registration. This course may be repeated one time for additional credit providing a different topic is to be covered.
Prerequisite: Chemistry 2420.

5352 Chemical Engineering. (3-0) Credit, 3 hours. The roles of the chemical engineer and the chemist are compared and engineering units are related to the metric system using the behavior of gases both as review and introduction to dimensional analysis. Steady state material balances and then those involving transients are studied before going on to the principles of energy conservation. (F)
Prerequisite: Chemistry 3340, 3410 and Physics 1420 or 2420.

5360 Selected Topics in Analytical and Inorganic Chemistry. (3-0) Credit, 3 hours. Topics are chosen from Organic Reagents in Inorganic Analysis, Spectroscopic Methods of Analysis, Chemical Applications of Group Theory, Organometallic Chemistry, Transition Metals, Boron and Other Electron Deficient Compounds, Analytical Instrument Circuitry, Nonmetallic Elements, Radiation Chemistry, with the specific topic to be discussed agreed upon prior to registration. This course may be repeated one time for additional credit providing a different topic is to be covered.
Prerequisite: Chemistry 3410, 4440.

5362 Chemical Engineering. (3-0) Credit, 3 hours. Thermophysical properties and thermochemical relations are reviewed preparatory to a study of energy balances. Combined material-energy balances are considered and a final topic is that of transport phenomena. (S)
Prerequisite: Chemistry 4352-5352.

5370 Problems in Chemistry. Credit, 3 hours. Open to graduate students on an individual basis at any time by arrangement with the faculty member concerned. May be repeated one time for credit.

5375 Biochemistry. (3-0) Credit, 3 hours. A course devoted to a study of the chemistry of carbohydrates, lipids, proteins, enzymes, and nucleo-proteins. A study of enzyme kinetics and thermodynamics of coupled reactions is included. (F, SS-I)
Note: Credit for Chemistry 5275 is not required for credit in Chemistry 5375.
Prerequisite: Chemistry 2420, 3340, 3410 or permission of the department.

5380 Selected Topics in Biochemistry. (3-0) Credit, 3 hours. Topics are chosen from Protein and Enzyme Chemistry, Intermediary Metabolism, Vitamins and Hormones, or Physical Biochemistry, with the specific topic to be discussed agreed upon prior to registration. This course may be repeated one time for additional credit providing a different topic is to be covered.
Prerequisite: Chemistry 4475-5475 or 4485-5485.
5385 Biochemistry. (3-0) Credit, 3 hours. A study of digestion, absorption, vitamins, intermediary metabolism and respiration. (S, SS-II)
Note: Credit for Chemistry 5275 is not required for credit in Chemistry 5385.
Prerequisite: Chemistry 2420, 4375, and six semester hours of biology or permission of the department.

5395 Fundamentals of Research. (2-3) Credit, 3 hours. This course is designed to acquaint the beginning graduate student with materials and methods of chemical research.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

5412 Analysis and Synthesis of Organic Compounds. (2-6) Credit, 3 hours. A laboratory study with lectures on the principles and techniques used for the identification and synthesis of organic compounds. Some time is also given to quantitative analysis and glass blowing.
Prerequisite: Chemistry 2420.

5475 Biochemistry. (3-3) Credit, 4 hours. A course devoted to a study of the chemistry of carbohydrates, lipids, proteins, enzymes, and nucleoproteins. A study of enzyme kinetics and thermodynamics of coupled reactions is included. (F, SS-I)
Prerequisite: Chemistry 2420, 3340, 3410, or permission of the department.

5485 Biochemistry. (3-3) Credit, 4 hours. A study of digestion, absorption, vitamins, intermediary metabolism and respiration. (S, SS-II).
Prerequisite: Chemistry 2420 and six hours of biology.

This course is intended for students majoring in either biology or chemistry and minoring in the other.
Borm, Alfred Ervin, Associate Professor of Mathematics. B.S., The University of Texas at Austin; M.A., University of Washington; Ph.D., The University of Texas at Austin.

Carlisle, Washington Homer, III, Assistant Professor of Mathematics. B.A., M.A., Ph.D., Emory University.

Chatfield, John Albert, Associate Professor of Mathematics. B.S., M.A., Southwest Texas State University; Ph.D., The University of Texas at Austin.

Crossley, Sterling Gene, Associate Professor of Mathematics. B.A., Rice University; M.S., Ph.D., Texas Tech University.

Doerr, Roy Frederic, Assistant Professor of Mathematics and Supervisor of Student Teaching. B.S. in Ed., Southwest Texas State University; M.A., The University of Texas at Austin.

Early, Grady Gaston, Assistant Professor of Mathematics. B.A., Arlington State College; M.S., Ph.D., Texas A & M University.

Edgell, John James, Jr., Associate Professor of Mathematics and Supervisor of Student Teaching. B.S., Lamar State College of Technology; M.A., Sam Houston State University.

Fry, Morris Aaron, Associate Professor of Mathematics. B.S., M.S., The University of Houston.

Hazlewood, Donald Gene, Associate Professor of Mathematics. B.A., The University of Texas at Austin; M.A., M.S., Ph.D., Syracuse University.

Helton, Burrell Washington, Professor of Mathematics. B.S., United States Military Academy; B.B.A., M.A., Ph.D., The University of Texas at Austin.

McClung, Harry Byrom, Associate Professor of Mathematics. B.A., M.S., Ph.D., West Virginia University.

McEwen, Henry Nylon, Professor of Mathematics. B.S., M.Ed., Hardin-Simmons University; Ph.D., The University of Texas at Austin.

Northcutt, Robert Allan, Professor of Mathematics and Chairman of the Department of Mathematics. B.A., M.A., Ph.D., The University of Texas at Austin.

Ratliff, Ernest Francis, Jr., Assistant Professor of Mathematics. B.S., McNeese State College; M.A., Ph.D., University of Oklahoma.

Tulloch, Lynn Hardyn, Professor of Mathematics. B.A., Baylor University; M.A., Brown University; Ph.D., The University of Texas at Austin.

Van Doren, Kenneth R., Assistant Professor of Mathematics. B.A., M.A., The University of Texas at Austin; Ph.D., Auburn University.
degree programs

The Mathematics Department offers three programs leading to Master's degrees: a Master of Arts Degree, a Master of Science Degree, a Master of Education Degree. The Master of Arts Degree consists of a minimum of thirty hours including at least twenty-four hours in the major field with a six hour thesis and a minor which may be from the science area. The Master of Science Degree consists of a minimum of thirty hours including the thesis or a minimum of thirty-six hours without a thesis. The minor must be from the science area for the Master of Science Degree. The Master of Education Degree consists of a minimum of thirty-six hours without the thesis, and the minor generally must be taken outside of the science area. Students are advised to contact the Mathematics Graduate Advisor for more detailed information.

These courses are designed to develop studies appropriate to preparing students for doctoral research, community college teaching, public school teaching, or for careers in applied mathematics, statistics, or computer science (since computer science is now offered as a graduate minor within the mathematics area). The faculty has specialists within the algebra, analysis, applied mathematics, computer science, differential equations, and general topology areas. The library collection is extensive in both journals and reference works with current journals available in a reading room convenient to the departmental offices.

Financial Aids Program. Graduate students are encouraged to work as Assistant Instructors. The stipends for these assistantships are comparable to the national norms and generally require teaching two courses per semester. Information may be obtained by writing the Chairman of the Mathematics Department.

courses offered

5301 Partial Differential Equations. (3-0) Credit, 3 hours. The theory and application of partial differential equations; deduction of the differential equation; use of vector and tensor methods; equations of the first order; wave equations; vibrations and normal functions; Fourier series and integral; Cauchy's method, initial data; methods of Green; potentials; boundary problems; methods of Riemann-Volterra; characteristics. May be repeated once for additional credit.
Prerequisite: Mathematics 3323 and consent of the instructor.

5303 History of Mathematics. (3-0) Credit, 3 hours. A study of the development of mathematics and of the accomplishments of men who contributed to its progress. Cannot be used on degree plan of a student who takes Mathematics 5399 or 5699.

5304 Topics in Mathematics for the Secondary Teacher. (3-0) Credit, 3 hours. A study of the current trends and topics found in the secondary school mathematics curriculum with the goal of improving the mathematical background of the secondary teacher. Course content will be flexible and topics will be selected on the basis of student needs and interests.
This course may not be used to meet requirements for a M.A. or M.S. degree.

5305 Advanced Course in Probability and Statistics. (3-0) Credit, 3 hours. Advanced topics in probability and statistics. May be repeated once for credit.
Prerequisite: Mathematics 4305.

5307 Modern Algebra. (3-0) Credit, 3 hours. Topics in modern algebra. Materials will be adapted to the needs of the class. May be repeated once for credit.
Prerequisite: Mathematics 4307 or consent of instructor.
5309 Foundations of Analysis. (3-0) Credit 3 hours. A critical study of the bases of mathematical analysis. Material will vary according to the needs of the class. May be repeated once for credit.
Prerequisite: Mathematics 4313 or consent of the instructor.

5311 Foundations of Differential Equations. (3-0) Credit, 3 hours. A critical study of the foundations of derivation equations, operator spaces, and such basic topics. Recent developments in this field will be investigated and independent investigation will be encouraged. May be repeated once for credit.
Prerequisite: Mathematics 3323 and consent of the instructor.

5312 Functions of a Complex Variable. (3-0) Credit, 3 hours. Modern developments in the field of functions of a complex variable. May be repeated once for credit.
Prerequisite: Mathematics 4315 or 4373, or consent of the instructor.

5317 Problems in Advanced Mathematics. (3-0) Credit, 3 hours. Open to graduate students on an individual basis by arrangement with the mathematics department. A considerable degree of mathematical maturity is required. May be repeated once for additional credit.

5319 The Theory of Integration. (3-0) Credit, 3 hours. A course in the theory of integration, with special emphasis on Lebesgue integrals. A course in the theory of real variables, with a knowledge of point set theory, is desirable as a background for this course. A considerable amount of mathematical maturity is required.
Prerequisite: Mathematics 4313 or 4373, and consent of the instructor.

5330 Topics in Topology. (3-0) Credit, 3 hours. Selected topics in topology. Material will be varied according to the needs and interests of the class. May be repeated once, with a different emphasis.
Prerequisite: Mathematics 4330.

5336 Topics in Applied Mathematics. (3-0) Credit, 3 hours. Topics selected from optimization and control theory, numerical analysis, calculus of variations, boundary value problems, special functions, or tensor analysis. Material will be varied according to the needs and interests of the class. May be repeated once for credit.
Prerequisite: 6 hours of advanced mathematics pertinent to topic and consent of instructor.

5373 Theory of Functions of Real Variables. (3-0) Credit, 3 hours. This course pre-supposes a year's course of calculus and preferably an elementary course in differential equations or in advanced calculus. The course discusses those topics which will enable the student to obtain a better grasp of the fundamental concepts of the calculus of real variables and the more recent developments of this branch of analysis.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

Courses in computer science

5308 Advanced Systems Programming. (3-0) Credit, 3 hours. Design and analysis of systems software including compilers and operating systems. Recent developments in this field will be investigated. May be repeated once for credit.
Prerequisites: Mathematics 4328, or consent of the instructor.
5318 Advanced Programming Techniques. (3-0) Credit, 3 hours. Advanced topics in computer programming. Languages, information structure and file maintenance. May be repeated once for credit.
Prerequisites: Mathematics 3308, or consent of the instructor.

5368 Topics in Computer Science. (3-0) Credit, 3 hours. Selected topics in computer science from advanced areas of computer systems, operations research, data structure, or computer design. Material will be varied according to the needs and interests of the class. May be repeated once for credit.
Prerequisite: 6 hours senior level computer science or consent of instructor.
department of physics

graduate faculty

Anderson, Robert Ernest, Professor of Physics. B.S., M.S., Texas A & I University; Ph.D., The University of Texas at Austin.

Crawford, James Robert, Associate Professor of Physics. B.S., Phillips University; M.S. University of Arkansas; Ph.D., Kansas State University.

Jackson, William Roy, Jr., Associate Professor of Physics. B.A., Columbia College; M.A., Ph.D., Rice University.

Michalk, Victor Edward, Professor of Physics and Chairman of the Department of Physics. B.S., M.S., Texas A & I University; Ph.D., Texas A & M University.

Spear, Arthur Walsh, Associate Professor of Physics. B.A., M.A., Southwest Texas State University.

degree programs

Three degree options are available to students majoring in physics. The standard program which leads to the Master of Science degree, requires 15-18 hours in physics, 9-6 hours in another science, and a minimum of 6 hours of thesis. The Master of Science degree program without a thesis also is available. This optional program requires 6 hours of course work in lieu of the thesis and 6 hours of additional course work. A third option differs from the standard M.S. program only in that the minor of 9-6 hours need not be in another science. This program leads to the Master of Arts degree and is not available with a non-thesis option.

Financial Aids Program. Assistantships are available on a limited basis, and applications should be submitted by June 1. Inquiries and/or applications for assistantships should be mailed to

Chairman, Department of Physics
Southwest Texas State University
San Marcos, Texas 78666
Phone: 512—245-2131

courses offered

5311 Nuclear Physics. (3-0) Credit, 3 hours. The study of radioactivity, nuclear structure, binding energies, and particle accelerators. (S)
Prerequisite: Physics 3312 and Mathematics 3372.

5312 Quantum Mechanics, Part II. (3-0) Credit, 3 hours. A continuation of Quantum Mechanics, Part I, Physics 4312. Topics covered include time independent and time dependent perturbation theory, multiparticle systems and the Pauli exclusion principle.
Prerequisite: Physics 4312, or approval of instructor.

5320 Solid State Physics. (3-0) Credit, 3 hours. An introductory course in the theory of solids.
Prerequisite: Mathematics 3323.
5325 **Elementary Concepts of Physics.** (3-0) Credit, 3 hours. This course is designed to up-grade the physics background of elementary school teachers. The emphasis is placed on concepts of physics rather than using the mathematical approach. Special attention will be given to recently developed concepts which are of interest in the elementary schools.

Prerequisite: Major in elementary education.

5335 **Survey of Air Pollution Problems.** (3-0) Credit, 3 hours. A survey in air pollution problems covering particulate and gaseous contaminants. The sources, natural cleansing mechanisms, effects, and measurement procedures for contaminants will be studied. Also included will be the efforts at control by industry and federal and state regulatory agencies.

Prerequisite: Two semesters of physics or approval of the instructor.

5336 **Methods and Techniques of Physical Science.** (2-4) Credit, 3 hours. This course includes methods of instruction and laboratory techniques of topics recommended by the Texas Education Agency to be included in a physical science course in public schools. See Chemistry 4336-5336.

5337 **Methods and Techniques of Physical Science.** (2-4) Credit, 3 hours. This course includes methods of instruction and laboratory techniques of topics recommended by the Texas Education Agency to be included in a physical science course in public schools. See Chemistry 4337-5337.

5340 **Advanced Dynamics, Part II.** (3-0) Credit, 3 hours. Classical mechanics at an advanced level. Topics covered include special relativity in classical mechanics, Hamilton equation of motion, canonical transformations and Hamilton-Jacobi theory.

Prerequisite: Physics 4313 or approval of the instructor.

5370 **Problems in Advanced Physics.** (3-0) Credit, 3 hours. Open to graduate students on an individual basis by arrangement with the Department of Physics.

5395 **Fundamentals of Research.** (2-6) Credit, 3 hours. This course is available to graduate students only upon the invitation of the department. It may be repeated on the same basis.

5399 or 5699 **Thesis.** Credit, 3 or 6 hours.

*May be repeated once with different emphasis for additional credit.*
school of business

department of business administration

graduate faculty

Abrahamson, Royce Lynnwood, Professor of Business Administration and Chairman of the Department of Management and Marketing and the Department of General Business. B.S. in Ed., M.Ed., Ph.D., The University of Texas at Austin.

Bishop, Bill Joe, Professor of Business Administration and Chairman of the Department of Accounting and Computer Science and the Department of Finance and Economics. B.B.A., M.B.A., North Texas State University; Ph.D., The University of Texas at Austin, C.P.A.

Erickson, Maurice Jacob, Professor of Economics. A.B., Kansas University; M.A., University of Nebraska; Ph.D., The University of Texas at Austin.


Johnston, Marvin Autry, Professor of Business Administration. B.B.A., M.B.A., D.B.A., Texas Tech University, C.D.P.

Morgan, Celia Ann, Associate Professor of Economics. A.A., Lamar State College of Technology; B.B.A., The University of Texas at Austin; M.A., Ph.D., University of Houston.

Reese, Otis Grant, Associate Professor of Business Administration. B.B.A., M.A., Southwest Texas State University, C.P.A.

Shields, Mayron, Professor of Business Administration. B.S., Stephen F. Austin State University; M.B.A., Ed.D., North Texas State University.

Stevenson, Robert Mahaffey, Professor of Business Administration. B.A., Duke University; M.A., Pennsylvania State University; D.B.A., Indiana University, C.P.A., C.L.U.

Wilson, Wilton Leland, Professor of Business Administration and Dean of the School of Business. B.B.A., M.S., Texas A & I University; Ph.D., University of Arkansas.

degree programs

The School of Business offers the degree of Master of Business Administration consisting of a minimum of 30 hours of study including a thesis or 36 hours of study without a thesis. All hours may be taken within the curriculum of the School of Business with no minor requirements. Background normally consists of a baccalaureate degree in Business Administration or 30 hours in the field to include the following courses or their equivalents: accounting, 6 hours; economics, 6 hours; business law, 3 hours; finance, 6 hours; management, 3 hours; marketing, 3 hours; statistics, 3 hours.
courses offered

5311 Current Developments in Marketing. (3-0) Credit, 3 hours. Advanced study of marketing functions and institutions; marketing structures, strategies, policies, and problems. Each student will be given an opportunity to examine developments of special interest to him.

5312 Seminar in Management. (3-0) Credit, 3 hours. Study and analysis of management theory; managerial functions; management principles; philosophies of management; analysis of nature and problems and approaches to planning, organizing, decision making, and controlling through the study of recent relevant literature and selected cases.

5313 Administrative Policy. (3-0) Credit, 3 hours. An integrative approach to policy formulation and administration (decision making) to achieve organization objectives.

5314 Organization Behavior and Human Relations. (3-0) Credit, 3 hours. The analysis of interpersonal behavior in organizations through the study of the interrelationship and impact of human, technical, economic, and social factors in business administration.

5321 Seminar in Marketing. (3-0) Credit, 3 hours. A study of the planning and coordination of marketing functions; marketing policies, and the analysis of marketing administration.

5330 Industrial Relations. (3-0) Credit, 3 hours. A study of current developments and practices in industrial relations, including executive development programs; employee communications; wage administration; labor force and labor market; employee services; human relations and productivity; the labor agreement; settlement of labor disputes and current contributions to personnel theory.

5331 Advanced Statistical Methods. (3-0) A study of probability, sampling methods, statistical inference, analysis of variance, chi-square, multiple and partial regression, and the use of these as tools for the purpose of decision making in business and economics.

5332 Quantitative Methods. (3-0) Credit, 3 hours. This course will review mathematical procedures, probability, sampling, and sampling distributions. Model building and simulations will be studied with topics to include simplex, MODI, transportation, index and ratio-analysis methods; applications to production management and marketing problems along with capital investment decisions; Monte Carlo method; waiting lines; incremental and total value analysis; and statistical quality control; computer applications will be introduced.

Prerequisite: Six hours of Business Administration Statistics.

*5333 Problems in Business Administration. Credit, 3 or 6 hours. The student is given the opportunity to work in the field of his special interest, particularly in the subject of accounting, business law, marketing, statistics, finance, and insurance. The course will be conducted by conferences between the student and instructors concerned. Problems will be assigned as nearly as possible for the needs of the individual student.

5340 Seminar for Computer Science in Business. (3-0) Credit, 3 hours. The design, construction, and programming of computer solutions in the fields of business and economics.

*May be repeated once with different emphasis for additional credit.
5342 Basic Computer Systems. (3-0) Credit, 3 hours. Concepts of computer logic and computer systems. Application of software systems to the development of models for organizational decision making. The student will program decision models and basic file-oriented information systems using FORTRAN and COBOL.

5343 Computer-Based Management Information Systems. (3-0) Credit, 3 hours. Principles of systems analysis and design of computer-based management information systems. Included is an introduction to the development of a computer-based management information system and a career-oriented application of system analysis and design.

5344 Introduction to Computer Simulation. (3-0) Credit, 3 hours. Use of discrete simulation languages in the modeling of complex business problems. Instruction involving the programming in a simulation language of a structured set of problems.

5361 Advanced Accounting Theory. (3-0) Credit, 3 hours. An examination of the theory of business income, evaluated in the light of criticisms implicit in other concepts of income. The social significance of accounting; valuation principles and presentation of financial statements.

5362 Cost and Managerial Accounting Theory. (3-0) Credit, 3 hours. A study of recent developments and controversial topics in the area of cost and managerial accounting. Includes a discussion of quantitative techniques and their applicability to accounting problems.

5363 Contemporary Accounting Theory. (3-0) Credit, 3 hours. A study of the development of current accounting theory including pronouncements by the Accounting Principles Board. Emphasis is placed on currently controversial topics.

5367 Advanced Seminar in Finance. (3-0) Credit, 3 hours. An advanced study of financial analysis including contemporary problems and methods used in financing business enterprise, both internally and externally; interest rate trends, government regulation of securities markets, taxation and the public debt; sources of information useful for research in solving financial problems.

5373 Comparative Economic Systems. (3-0) Credit, 3 hours. An analysis of the basic theories and institutions of economic systems, including a comparison of the American economic system with the socialistic and communistic economics.

5376 Economic Education I (3-0) Credit, 3 hours. Designed to develop basic economic concepts secondary students can understand and use.

5377 Economic Education II. (3-0) Credit, 3 hours. Designed to help secondary students solve meaningful problems they face by applying basic economic analysis. Prerequisite: Business 5376 or consent of instructor.

5378 Advanced Economic Theory. (3-0) Credit, 3 hours. This course treats the vital function of an economic system to sustain a satisfactory rate of economic growth consonant with social goals reflected in economic stabilization goals and policy. A brief historical review of theories of development, comparative means of effecting economic integration and solving economic problems, delineation of the scope and method of a theory of development, the role of aggregate economics in analysis of growth, its measurement, and providing policy-making premises; emphasis upon intersectional and interregional economic relations, and the role of price in furnishing “coefficients of choice” to guide policy-making. A corollary goal is to present monetary theory, which overlaps both micro- and macro-economics, as the “bridge” between these two major areas of economic theory.
5387 Financial Control. (3-0) Credit, 3 hours. A study of the financial framework within which businesses operate and the principles governing operational decisions and the flow of funds through the individual company. Topics include accounting principles and conventions, price level problems related to accounting data, limitations associated with financial statements, basic procedures for statement analysis and interpretation, evaluation of alternate methods of business financing, and controls effected through budgets and accounting reports.
Prerequisite: Business 5361 or consent of the graduate advisor.

5390 Business Research Methods. (3-0) Credit, 3 hours. Designed to aid graduate students in analyzing reports and evaluating research and in planning research reports. Selection of research problems, sources of data, analysis, presentation, report writing, directed reading, class reports, and a research problem.

5399 or 5699 Thesis. Credit 3 or 6 hours.
school of applied arts

department of agriculture

graduate faculty

Elliott, James Denton, Professor of Agriculture. B.S., M.S., Oklahoma State University; Ph.D., Cornell University.

Helm, Raymond Edgar, Associate Professor of Agriculture. B.S., M.S., Ph.D., Texas A & M University.

Knotts, Don, Associate Professor of Agriculture. B.S., M.Ed., Sam Houston State University; Ph.D., Texas A & M University.

Miller, Roy V. Jr., Professor of Agriculture and Chairman of the Department of Agriculture. B.S., Texas Tech University; M.S., Ph.D., Colorado State University.

Rydl, Glen Myrlin, Associate Professor of Agriculture. B.S., M.S., Ph.D., Texas A & M University.

Shell, Lon Ray, Associate Professor of Agriculture. B.S., M.S., Ed.D., Oklahoma State University.

degree programs

The degree of Master of Education in Agricultural Education consists of a major of 15 hours of Agricultural Education and 6 hours of Education and a minor of 15 hours of Scientific Agriculture or supportive courses.

courses offered

5313 Advanced Problems in Farm Crop Production. (3-0) Credit, 3 hours. Intensive study of the latest research in the production and harvesting of crops. Comparative study of the characteristics of the most recently recommended varieties of the chief farm crops grown in Texas. (SS)

5321 Advanced Range Management. (2-3) Credit, 3 hours. Advanced problems in range management such as range and ranch economics, control, and proper stocking. (S)

5347 Conservation of the Natural and Agricultural Resources. (3-0) Credit, 3 hours. A study of resources related to farm and community life; special emphasis on the conservation of soil, water, forest, range land, wildlife, minerals, health, and safety. Visiting consultants in the above fields will be used.

5360 Advancements in Animal Science. (3-0) Credit, 3 hours. Survey of current knowledge and concepts in animal production including economic considerations and
current production problems of breeding and feeding livestock. Prerequisites: Ag. 1345, 3345, and 4325 or approval of Department Chairman.

5370 Problems in Technical Agriculture. Credit, 3 to 6 hours. A conference course. Problems will be selected to meet the needs of the individual student.

5426 Classification and Management of Range Soils. (3-2) Credit, 4 hours. Classification and management of range soils in Texas. The physical relationships of soil moisture, temperature, penetrability, and aeration to plant growth. Range condition classes, range sites, land classes, and problem areas as they affect management. (S)

agricultural education

5314 Problems in Teaching Vocational Agriculture. Credit, 3 to 6 hours. The student is given the opportunity to work on problems of special interest and need in teaching high school vocational agriculture. If taken for three semester hours credit, this course may be repeated for additional credit.

5318 Administration and Supervision of Vocational Education. (3-0) Credit, 3 hours. Problems of organization, administration, and supervision of vocational education. Study of the Smith-Hughes, the George-Barden, the National Defense Education, and other national and state laws that govern vocational education.

5319 Philosophy and Principles of Adult Education. (3-0) Credit 3 hours. Identification and study of basic principles and philosophies that motivate adults to learn. Emphasis will be placed on changes occurring in adult life as they affect the teaching-learning process and general adult behavior. The history of adult education will be reviewed.

5320 History and Principles of Vocational Education. (3-0) Credit 3 hours. A study of the history and basic philosophy will be made. Emphasis on current principles and operation of local agricultural programs and their relationship to other state and national programs.

5325 Curriculum Development of Vocational Programs. (3-0) Credit 3 hours. Dynamics of cultural and technological changes upon methods of planning and implementing agricultural experience programs and related technical occupations. Emphasis on meeting the educational needs of youth.

5330 Vocational Techniques of Research and Analysis. (3-0) Credit 3 hours. Advanced study of occupational experience programs—their nature and scope in relation to supervised farming programs, cooperative experience programs and pre-employment laboratory training. Emphasis on evaluation, occupational identification, and analysis of placement opportunities.

5331 Guidance and Counseling for Vocational Students. (3-0) Credit 3 hours. Analysis of occupational and vocational opportunities for vocational students; techniques of individual and group counseling in guidance. Practicum in personality and occupational interest testing.

5340 Organization and Administration of Agricultural Mechanics. (3-0) Credit 3 hours. Planning, organizing, implementing, and conducting vocational technical laboratory programs will be emphasized. Shop program management functions such as equipment selection, purchasing, maintenance, shop budgets, inventories and supply needs will be studied. Writing educational specifications in planning for vocational and technical shop facilities will be included.
Blythe, Hal Tucker, Associate Professor of Education. B.S.E., M.S.E., State College of Arkansas; Ph.D., East Texas State University.

Brown, William Frank, Professor of Education. B.S., Trinity University; M.A., Ed.D., The University of Texas at Austin.

Bynum, James Lowell, Assistant Professor of Education. B.S., McMurry College; M.Ed., West Texas State University; Ed.D., Texas Tech University.

Conoley, Colleen Wyatt, Associate Professor of Education. B.A., University of Arkansas; M.A., Ph.D., The University of Texas at Austin.

Dorsey, Oscar Lee, Professor of Education and Dean of the College of Professional Schools. A.A., Angelo State University; B.S., Abilene Christian College; M.Ed., Ph.D., Texas A & M University.

Garland, James Jasper, Professor of Education and Dean of the School of Education. B.S., M.A., and Ed.D., Baylor University.

Hefner, Robert Lee, Associate Professor of Education. B.S., East Texas State University; M.Ed., North Texas State University; Ph.D., Texas A & M University.

Henry, William Gammon, Jr., Associate Professor of Education and Director of Audio-Visual Aids. B.M., North Texas State University; M.S.Ed., Ph.D., Indiana University.

Holman, Naomie, Assistant Professor of Education. B.S., M.Ed., West Texas State University; Ed.D., Western Colorado University.

Juel, Martin Oliver, Professor of Education and Chairman of the Department of Education. B.A., St. Olaf College; M.Ed., and Ph.D., University of Minnesota.

Lacy, Bettye B., Assistant Professor of Education. B.S., University of Texas at El Paso; M.S., Texas Women's University; Ph.D., The University of Texas at Austin.

McCanne, Hazel Beatrice, Professor of Education. B.S., M.S., North Texas State University; Ph.D., Northwestern University.

McDaniel, Elizabeth Logan, Associate Professor of Education. B.A., University of California at Los Angeles; M.S., University of Illinois; Ph.D., The University of Texas at Austin.
Miller, Damon J., Associate Professor of Education. B.A., M.Ed., Howard Payne College; Ph.D., The University of Texas at Austin.

Moore, Joe Midge, Associate Professor of Education. B.S., M.Ed., Ed.D., North Texas State University.

Neely, Jerry R., Assistant Professor of Education. B.B.A., McMurry College; M.Ed., Abilene Christian College; Ph.D., North Texas State University.

Newberry, William Clarke, Associate Professor of Education. B.S., Southwest Texas State University; M.Ed., Stephen F. Austin State University; Ed.D., The University of Texas at Austin.

Nicosia, Ralph Timothy, Assistant Professor of Education. B.S., M.Ed., Ed.D., North Texas State University.

Smith, Milton Lloyd, Associate Professor of Education. B.S., University of Corpus Christi; M.S., Texas A & I University; Ph.D., The University of Texas at Austin.

Sparks, Rebecca Lewis, Associate Professor of Education. B.A., Baylor University; B.S., Texas Women's University; Ed.D., North Texas State University.

Stevens, Paul Lester, Associate Professor of Education. B.S., Texas A & M University; M.Ed., The University of Houston; Ph.D., Texas A & M University.

Stone, Jerome Wilson, Professor of Education. A.B., Southeast Missouri State College; M.A., University of Arizona; Ed.D., University of Southern California.

Williamson, Bobby Lee, Associate Professor of Education. B.S., Texas A & M University; M.Ed., Southwest Texas State University; Ed.D., Colorado State College.

Willoughby, Jack Michael, Assistant Professor of Education. B.S., Texas A & M University; M.Ed., Southwest Texas State University; Ed.D., University of Southern Mississippi.

Worley, Stinson Ezell, Professor of Education. B.A., Baylor University; M.Ed., Ed.D., North Texas State University.

Zunker, Vernon George, Professor of Education and Director of the Counseling Center. B.S., Texas Lutheran College; M.Ed., Trinity University; Ed.D., University of Houston.

degree programs

The Department of Education offers a variety of degrees and programs. Before proceeding into any field of Education at S.W.T.S.U., the degree applicant should inquire as to certification requirements associated with or prerequisite to the degree. One must constantly keep in mind that certification requirements and graduate degree requirements may not be related in any way and that the satisfactory completion of degree requirements may not always lead directly to certification.

In general, majors in any field of education who have not completed student teaching must complete this course as a background requirement or obtain a waiver from the Department of Education on the basis of teaching experience.

While it is possible to earn the degree of Master of Arts in most areas of Education with a minimum of 30 semester hours including the thesis, professional certification requirements generally lead the candidate to select the Master of Education degree.
The degree of Master of Education usually consists of a minimum of 36 hours without the thesis, with several variations of hours within the major and minor/minors. Major programs and specializations are available in the following areas:

**Counseling and Guidance.** This degree consists of 21 hours of Education and an academic minor of 15 hours, or a split minor of 9 hours in Psychology and 6 hours of Sociology.

**Elementary Education.** A major in Elementary Education usually consists of a minimum of 21 hours in Education and an academic minor of 15 hours or a composite minor grouped under the title of Methods and Materials.

**Reading Education.** A reading specialization major consists of a minimum of 39 hours in a composite program. It is generally recommended for holders of elementary certification.

**Secondary Education.** A major in Secondary Education usually consists of a major of 18 hours in Secondary Education, a 12 hour Academic Specialization and a 6 hour Academic Resource. If the Secondary Education major is used in conjunction with a certification program in Administration, the degree plan generally calls for a 24 hour major in Secondary Education, a 6 hour minor in Sociology and a 6 hour minor in Psychology, or a 12 hour academic minor.

**Management of Vocational/Technical Education.** This degree program is a highly specialized composite program leading to VITE certification.

**Educational Administration.** The program in Administration offers two distinct areas for certification as Texas public school administrators: Mid-Management, a 45 hour program, and the Superintendency, requiring 15 hours in addition to the 45 hours of the Mid-Management level.

These certificates fulfill requirements for administrative positions such as elementary, middle, or secondary principal, and central office positions. The degree of Master of Education is awarded after completion of the first 36 hours.

Leadership skills, administrative principles, and familiarity with legal and financial procedures, as well as personnel management, curriculum development, sociological and psychological aspects of school administration are presented to the student. Scheduling of courses is planned to permit public school teachers to carry their load while acquiring the Master's degree and subsequent certification.

In addition to majors and concentrations, there are a number of endorsements and certification programs available within the framework of the degree programs mentioned above. All inquiries concerning the VISITING TEACHER, SUPERVISOR, EARLY CHILDHOOD, BI-LINGUAL/BI-CULTURAL, and GUIDANCE ASSOCIATES programs should be directed to the Department of Education.

The program in Supervision offers Texas certification with the 45 hour program. A degree of Master of Education is awarded after the student completes 36 hours of the prescribed program. This plan consists of courses in curriculum, educational leadership, and community liaison skills. The student may choose to specialize in elementary, vocational, early childhood, bilingual, or special education.

A composite program in Special Education leading to state certification in the area of Associate School Psychology is offered through the Department of Special Education. Inquiries concerning this program should be directed to Dr. Elizabeth McDaniel, Department of Education.
courses offered

5101 Research. (1-0) Credit, 1 hour. Individual research in various problems related to education. Data, analysis, and conclusions will be reported.

5201 Methods in Secondary Aviation/Aerospace. (2-0) Credit, 2 hours. One of the two courses for qualifying as teacher of Aviation/Aerospace Education in the secondary school. Deals with means of implementing the secondary program, and with techniques, methods, and resources for the secondary course.

5202 Development, Organization, and Use of Instructional Material. (2-0) Credit, 2 hours. The course is designed to assist the vocational industrial education teacher in conducting instruction. It includes the selection of lesson content, planning the lesson, and the use of various instructional sheets that will assist the teacher. Emphasis will be placed on the correct development of instructional sheets. Also, a study will be made of the different methods that may be used to secure, evaluate, and incorporate this material into the instructional program. A study will also be made of the various methods of testing the effectiveness of the instruction and how the progress of the student may be recorded for future references and class planning.

5204 Human Relations for Vocational Industrial Education Teachers. (2-0) Credit, 2 hours. This course is designed to aid vocational teachers in establishing and maintaining effective relationships with students, co-workers, other school personnel, industry, and persons in the community. The course includes a review of the principles of learning. Principles and skills in working with people will be developed through a study of: influences of heredity and environment, basic wants and needs, motivational factors, development of positive attitudes, teacher-student relationships, leadership development, and elements of effective communication. A study of techniques of identifying and arriving at probable solutions to problems in human relations will be included.

5205 Shop and Classroom Organization and Management. (2-0) Credit, 2 hours. This course is designed to assist vocational industrial education shop or laboratory instructors in the organization and management procedures used in vocational industrial shop programs. The course includes establishing record keeping systems; systems of controlling tools, equipment and supplies; using organization, rotation and progress charts; using student leadership in routine non-teaching class and laboratory tasks; establishing a safety program; and developing proper attitudes within the program.

5206 Analysis and Course Making. (2-0) Credit, 2 hours. This course is designed to assist vocational industrial teachers in the gathering, organizing, and preparing of teachable material based upon sound trade practices. The course includes a study of factors involved in development of vocational instruction, the parts of a course of study and procedures for trade or occupational analysis. Trade or occupational analysis, course outlines, and progress charts will be prepared. Courses of study will be revised or prepared as completely as time will permit.

5207 Selection, Placement, and Follow-up in Vocational Education. (2-0) Credit, 2 hours. The course is designed to assist the beginning teacher-coordinator in organizing and operating cooperative training programs in the community. The course includes procedures for selecting trade and industrial or health occupations and training stations suitable for providing training to high school youth, placement of students in suitable employment for part-time training, coordinating students’ school and on-the-job training activities, organizing the classroom facilities, preparation of necessary reports, and preparation and maintenance of an effective record system.
**5208 Problems in Cooperative Training.** (2-0) Credit, 2 hours. The course consists of a review of basic standards for Cooperative Education Training Programs and the underlying reasons for such standards with emphasis on the solution of actual problems in program operation. The course includes study of the procedures and techniques involved in community surveys, interpretation of survey data, program promotion, and organization and coordination of all types of part-time and evening classes.

**5301 Methods of Teaching Vocational Subjects.** (3-0) Credit, 3 hours. This course is designed to assist the vocational education teacher in understanding the nature of teaching, the various learning situations that must be met, the need for certain teaching methods and techniques and the correct application of these to properly prepare students for entrance into, or advancement in, their chosen occupational field.

**5303 Aims and Objectives of Vocational Education.** (3-0) Credit, 3 hours. Aims and objectives of vocational education are designed to assist the vocational industrial teacher in seeing his relationship to and in understanding the operation of the public education system at the local, state, and national levels. Major emphasis is placed upon vocational industrial education. The course includes a study of the purposes and structure of general education and vocational education; the development of vocational education in the United States; the need for vocational education; the organizational structure of vocational industrial education; financial support and control of vocational industrial education and professional qualifications of teachers of vocational industrial education classes. Current trends in vocational industrial education and their effects on present and future vocational industrial programs will be discussed.

**5305 Standardized Testing.** (3-2) Credit, 3 hours. Problems and principles of administration, scoring and interpreting group and individually administered tests; utilization of test data for diagnostic, placement, predictive and evaluative purposes; elementary statistical procedures; laboratory activities in test administration, scoring and interpretation.

**5306 Evaluative Techniques for the Classroom Teacher.** (3-0) Credit, 3 hours. An in-depth study of the objectives of evaluation, teacher-made tests, interpretation of standardized test results, self-evaluation, school evaluation, sociometric techniques and their use, and reporting to parents.

**5312 Elementary Language Arts: Current Trends.** (3-0) Credit, 3 hours. A study of current trends in methods of instruction in the language arts, a study of research findings, and an examination of selected media and materials. The course also identifies the relation of language arts to other aspects of the elementary school curriculum and the most effective diagnostic techniques for the language arts.

**5313 Human Growth and Development I.** (3-0) Credit, 3 hours. Training for teachers (elementary or secondary), counselors, supervisors, and administrators to improve their professional effectiveness through the direct study of individual pupils according to an organizing framework of scientific knowledge of human growth and development; emphasis on the physical processes, the affectional processes, and peer relationship.

This course is offered as a workshop in the summer session, with two hours of laboratory each week by arrangement.

**5314 Human Growth and Development II.** (3-0) Credit, 3 hours. For teachers (elementary or secondary), counselors, supervisors, and administrators to increase their understanding of the motivation, the developmental level, and the abilities of individual...
pupils by a direct study of individuals in the classroom; emphasis upon increasing scientific knowledge of culture, self-development, and self-adjustive areas of development.

This course is offered as a workshop in the summer session, with two hours of laboratory each week, by arrangement.
Prerequisite: Education 5313 or approval of the instructor.

5319 Curriculum and the Young Child, I (Kindergarten). (3-0) Credit, 3 hours. Organization and evaluation of programs for young children. Translating developmental knowledge into effective practices which may be employed in the total education of young children.

5320 Psychology in Teaching Reading. (3-0) Credit, 3 hours. A detailed study of the psychological bases of the reading process: the perceptual nature of reading, learning principles, sensory aspects, physiological correlates, phoneme-phoneme correspondence, personality factors, concept formation.

5322 Methods and Materials for Teaching Reading in the Elementary Grades. (3-0) Credit, 3 hours. This course is concerned with children four to twelve years and concentrates on preventing reading failure by dealing with readiness; assessment of linguistic, psycho-social, and physiological development; diagnostic reading; scope and sequence of beginning reading skills; and use of traditional and innovative methods and materials adapted to individual differences.

5323 Diagnosis of Reading Problems. (3-0) Credit, 3 hours. A study of the nature and causes of reading problems including observations, demonstrations, and supervised practice in the techniques of diagnosis. Attention is given to interview procedures, diagnostic instruments, standard and informal tests, and report writing.

5324 Teaching Reading in the Secondary School. (3-0) Credit, 3 hours. This is a graduate course dealing with teaching developmental reading in the secondary school. Topics to be included are extension of fundamental reading skills; classroom diagnosis and correction of reading problems; study skills; developing flexibility and critical thinking; reading in the content areas; adolescent reading tastes, and supervision of secondary school reading programs.

5326 The Elementary School Curriculum. (3-0) Credit, 3 hours. Principles of curriculum development and organization, selection of curriculum experiences, planning of various types of units, and overview of curriculum outcomes in various areas, guiding school experiences and unit activities, and actual practice in preparing curriculum materials.

5327 Principles and Practices in the Elementary School. (3-0) Credit, 3 hours. This course defines and interprets the newer trends in elementary school practices; the philosophy and objectives of the elementary school, and procedures for implementing these objectives; classroom organization and management, the principles of unified learning as applied to school experiences, procedures for planning and developing experiences, meeting individual needs, and evaluation.

5328 Elementary Social Studies: Curriculum Problems. (3-0) Credit, 3 hours. Development and purposes of the social studies curriculum; contributions of the social sciences to the social studies curriculum; relation of the social studies to the total elementary program; curriculum construction, supervision, and evaluation; current issues and trends.
5329 **The Elementary School Science Curriculum.** (3-0) Credit, 3 hours. An intensive study of the philosophies of discovery and inquiry as they relate to the elementary school science curriculum; laboratory experiences related to the objectives, content, methods, and materials of selected innovative programs. Examples: Inquiry Development Program, Elementary Science Study, Science—A Process Approach, Introductory Science Study, Science Curriculum Improvement Study, Minnesota Mathematics, and Science Teaching Project.

5330 **Curriculum and the Young Child, II (Kindergarten).** (3-0) Credit, 3 hours. Advanced study of curriculum and materials used in educational programs for young children.

5331 **Procedures and Practices for Teaching Reading to Black, Spanish and other Multi-Ethnic Pupils.** (3-0) Credit, 3 hours. This is a graduate course dealing with the linguistic and reading problems unique to pupils whose native language or dialect is other than standard Middle-American English, with particular emphasis on pupils of Afro-American or Mexican-American heritage. Other topics include: teaching English as a second language; teaching reading in a bilingual school setting; creating innovative methods and materials for bilingual pupils.

5332 **Remediation of Reading Disabilities.** (3-0) Credit, 3 hours. Methods and materials for teaching pupils with specific reading disabilities. Course includes interpreting diagnostic data, planning and organizing a remedial program, the study of remedial techniques, evaluation of remedial approaches, and required hours of clinical practice. Prerequisite: Education 5323.

5333 **The Secondary Curriculum.** (3-0) Credit, 3 hours. A brief history of curriculum development with special emphasis upon the Texas curriculum program; basic principles of curriculum making, and techniques of curriculum construction and installation; aims and purposes of the curriculum as a function in perpetuating and improving democratic ideals; attention to significant researches in curriculum development.

5334 **Public School Curriculum Leadership.** (3-0) Credit, 3 hours. This course is an examination of educational leadership as it relates to curriculum development and improvement. Consideration is given to the administrator's role in identifying and implementing innovations in curriculum construction at all levels, furnishing leadership in coordinating educational offerings in elementary and secondary schools; diagnosing and prescribing learning activities for all students' needs; planning and evaluating curriculum content and changes; and designating personalized programs in specific skill areas such as reading.

5335 **Clinical Practicum and Internship in Reading Disabilities.** (3-50) Credit, 3 hours. This is an advanced course on the clinical application of the nature, causes, and remediation of reading disabilities; it is conducted on campus or in an approved school setting. The course is designed to help reading teachers develop skills in testing, interviewing, analyzing case history findings, writing remedial prescriptions, teaching reading by using corrective or remedial procedures, and reporting to parents and schools. (In addition to lectures and seminars, students are required to have a minimum of 50 clock hours of supervised clinical practice.) Prerequisites: One year of successful full-time teaching; Education 5323, 5332, and consent of instructor.

5340 **Public School Administration.** (3-0) Credit, 3 hours. The overall principles of administration of public schools, preliminary to courses with more intensive study of specific problems; relations with the board of education, problems concerning the
school plant, business and finance, pupil personnel activities, the curriculum, supervision of instruction, personnel, and public relations.

5341 Supervision of Instruction. (3-0) Credit, 3 hours. Fundamental problems of the supervision of instruction in the small and moderately sized public schools; the nature and organization of supervision, supervisory plans and principles; teacher participation in forming educational policies; effect of recent educational practices upon supervision, duties, relationships, and training of supervisory officials; standards for judging teachers; methods of improving instruction; case studies in supervision; the use of conferences, teacher's meetings, demonstration teaching, visitation, and research studies as supervisory agencies.

5342 Supervision of the Elementary School. (3-0) Credit, 3 hours. The general organization of the elementary school; problems of classification, grouping, promotion and progress, school and community relations; the principal's routines; in-service training and guidance of teacher growth; the improvement of other factors in the teacher-learning situation.

5343 Supervision of the Secondary School. (3-0) Credit, 3 hours. Such problems as the organization of the secondary school; classification, promotion, and progress; co-curricular activities; duties of the principal; school and community relations; in-service training and the guidance of teacher growth; supervisory principles and plans; standards for judging teaching; methods of improving instruction; methods of follow-up on both drop-outs and graduates.

5344 School-Community Relations. (3-0) Credit, 3 hours. The development of concepts and methods of value in bringing closer integration of the school and the community; the contribution of the teacher, supervisor, guidance worker, and administrator to the improvement of school-community relations; emphasis upon ways to promote better community relationships; bridges between the school and community; importance of community life in the educative process; role of the school in building better communities; and the community school concept—its meaning and outstanding examples of its practice.

5346 The Principalship. (3-0) Credit, 3 hours. Duties at both elementary and secondary levels; elements common to all; work in areas where functions are sharply differentiated at various levels. Consideration of such topics as these: the place of the principal in the administrative organization, community relationships, his business and personnel functions, office management, scheduling, administration of the curriculum, the library and other auxiliary services, the extra-curricular program, the guidance program, the school plant.

5349 Interpersonal Behavior. (3-0) Credit, 3 hours. Process in interpersonal behavior through formal and informal groups. Role performance in interpersonal transactions. Status in group structure. Parameters on behavior created by personality organizational structure, and leadership considerations. Organizational change and group behavior.

5350 Organization and Administration of Guidance Services. (3-0) Credit, 3 hours. In depth study of principles and practices in the organization and administration of guidance services from K-12. Topics include (1) the structure, purposes and goals of guidance services, (2) the roles and functions of administrators, guidance personnel and teachers in the guidance service, (3) legal and ethical considerations of guidance personnel, (4) analysis of current counseling theories and (5) program development and evaluation.
5352 Paraprofessional in Counseling and Guidance. (3-0) Credit, 3 hours. Practical problems in organizing, administering and evaluating a counseling program utilizing paraprofessionals to provide a variety of guidance services. The following problem areas will receive in-depth examination: (1) delineation of job duties, (2) identification of requisite competencies, (3) adaptation of methods and materials, (4) provision of necessary training, (5) coordination of staff activities, and (6) evaluation of program effectiveness.

5354 Counseling Techniques. (3-0) Credit, 3 hours. Techniques for individual counseling: Models and intensive practice in systematic approaches to helping skills and interpersonal relationships. Affective and cognitive processes of understanding, acceptance and sincerity, as components of effective communication, will be major foci of the course.

5355 Vocational Guidance. (3-0) Credit, 3 hours. An introduction to the nature and use of occupational information in counseling and special group guidance classes; sources of information, methods of developing information through job analysis, and community surveys.

5357 Individual Testing. (3-2) Credit, 3 hours. Problems of administering and interpreting psychological tests designed for individual administration. Study of the utilization of intelligence, proficiency and projective tests in evaluation, classification and prediction. Laboratory activities in test administration, scoring and interpretation. Prerequisite: Ed. 5305 or approval of the instructor.

5358 Group Procedures in Guidance and Counseling. (3-0) Credit, 3 hours. A laboratory experience designed to provide theoretical background and practical application for techniques in group guidance and counseling. Reading in the field of group dynamics will be required. Techniques for the utilization of group guidance in the curriculum will be explored. Techniques of group therapy in the treatment of emotional and educational maladjustment will also be practiced.

5366 Seminar in Individual and Group Counseling (Advanced). (3-0) Credit, 3 hours. The study of theoretical positions and techniques used by outstanding counseling psychologists in individual and group practice. Supervised practice in both classical and contemporary approaches will be required. Students will identify counseling goals and evaluate the counseling sessions, using criteria appropriate to the specific theoretical position which is being practiced.

5370 Psychology of Learning. (3-0) Credit, 3 hours. A study of the basic problems in the acquisition of responses, treating with such constructs as reinforcement, extinction, retention, forgetting, problem solving motivation, and punishment. Major theories are treated through attention to classical experiments, but greatest emphasis is given contemporary research. See Psychology 5370.

5372 Philosophical Foundations of Education. (3-0) Credit, 3 hours. An overview of the field of educational philosophy as related to the spectrum of human events and the educative process in particular. Designed for Master's degree students without previous graduate work in philosophy or philosophy of education. Prerequisite: Graduate standing.

5374 Administration of Special Problems. (3-0) Credit, 3 hours. Analysis of legal, academic, and administrative requirements for special programs in the public schools. Emphasis is on special, vocational-technical and career education. Attention will be given to current state and federally funded programs requiring special administrative skills.
5375 The School Plant. (3-0) Credit, 3 hours. A study of plans for determining the extent and character of present and future building and equipment needs of a school unit; efficiency of present plant; operation and maintenance, planning the building program.

5376 Assessment I. (3-0) Credit, 3 hours. Standard individual tests (i.e., WISC, WAIS, BINET) of general intelligence and special abilities and achievement; their theoretical and statistical basis; construction, administration, scoring, and interpretation of these instruments. See Psychology 5376.

5377 Assessment II. (3-0) Credit, 3 hours. Advanced investigations in personality dynamics and role expectation; projective instruments (i.e., Rorschach, Thematic Apperception Test, etc.) and their theoretical bases; construction, administration, scoring, and interpretation, synthesis with interview, self report, psychometric, and sociometric data. See Psychology 5377. Prerequisite: Assessment I, or its equivalent, graduate standing and consent of instructor.

*5378 Problems in Education. (3-0) Individual problems not related to thesis or research problems. Designed to place emphasis on selected areas of study. A letter following the course number on the permanent record will indicate the area of emphasis according to this code: (a) School Psychology, (b) Administration, (c) Counseling, (d) Junior College, (h) Supervision, (e) Elementary, (f) Secondary, (k) Early Childhood, (l) Bilingual. For graduates only.

5385 Psychological Services in the School. (3-0) Credit, 3 hours. Concepts and procedures utilized in the prevention, diagnosis, treatment or referral, and rehabilitation of academic and behavior problems among children and adolescents; consultation with school personnel regarding pupil placement, curriculum design, the mental health of students and educational experiments.

5386 Professional Problems in School Psychology. (3-0) Credit, 3 hours. The role of the school psychologist in relation to the school administrators, guidance and counseling personnel, teachers, and parents. Professional development. The ethical position of the school psychologist.

*5389 Internship Practicum. Offered separately for administrators, counselors, supervisors and those who are candidates for positions in various areas of special education; will vary with the field chosen. A practicum is included for all like candidates for planning purposes, for discussions, and for evaluation. When taught out of town, a special fee is charged; see the fee sections of this catalog. A letter following the course number on the permanent record will indicate the area according to this code: (b) Administration, (c) Counseling, (h) Supervision, (a) School Psychology, (d) Junior College, (k) Early Childhood.

5390 Research Seminar in Elementary Education. (3-0) A course in which each student will be given an opportunity to choose for study special problems to fit his particular needs and interests; research procedures needed in the preparation of a thesis or other research reports; to demonstrate his mastery of these procedures, the student will present a research paper on a selected problem. Credit may be applied toward certification as elementary principal, or as a teacher of the mentally retarded, when an appropriate research problem is chosen. A letter following the course number on the permanent record will indicate the area according to this code: (b) Administration, (e) Mental Retardation; (h) Supervision, (i) Elementary, (k) Early Childhood.
5391 Research Seminar in Secondary Education. (3-0) Credit, 3 hours. Problems in secondary education; emphasis on research procedure; a research paper is required of each student.

Credit may be applied toward certification as a secondary principal or as a counselor, or for credit in supervision when an appropriate research problem is chosen.

A letter following the course title on the permanent record will indicate the area, according to this code: (B) Administration, (C) Counseling.

5392 The Community Junior College. (3-0) Credit, 3 hours. An introduction to the community junior college and to its roles and functions in American education. Special attention will be directed to the evolution, development, patterns of organization, purposes, programs, personnel, and current issues of the community junior college.

5393 Community Junior College Curriculum. (3-0) Credit, 3 hours. A study of curriculum development in the community junior college with special emphasis upon current trends and issues relating to technical-vocational, adult and continuing education, community services, college transfer, and remedial functions of the curriculum.

5394 Teaching in the Community Junior College. (3-0) Credit, 3 hours. A study of the junior college instructional program with emphasis upon the instructor, his preparation, qualifications, and performance. Instructional strategies appropriate to the needs of junior college students, including adults, will be studied.

5399 or 5699 Thesis. Credit, 3 or 6 hours.

5401 Aeronautics for Secondary Teachers. (3-2) Credit, 4 hours. One of the two courses for qualifying as teacher of Aviation/Space Education in the secondary school. Deals with the fundamentals of aeronautics: the science of flight, aircraft systems and instruments, meteorology, navigation, and air traffic control and communications.

6340 Public School Administration. (3-0) Credit, 3 hours. The over-all principles of administration of public schools. Consideration of such topics as these: the processes of administration, organization—federal, state, local districts, instructional personnel and staff, relations with staff and school board.

6341 Pupil Personnel Services. (3-0) Credit, 3 hours. Designed to help administrators, counselors, supervisors, and teachers develop an understanding of role of pupil personnel services; responsibility for techniques of evaluating programs of pupil personnel services.

6342 Organization, Administration, and Supervision of the Elementary School. (3-0) Credit, 3 hours. Duties and problems of the elementary school administrator. Consideration of such topics as these: the place of the elementary principal in the administrative organization, community relationships, organizational duties, problems of pupil personnel, instructional leadership. Special emphasis on supervision responsibilities of the elementary principal.

6343 Organization, Administration, and Supervision of the Secondary School. (3-0) Credit, 3 hours. Duties and problems of the secondary school administrator. Consideration of such topics as these: the place of the secondary principal in the administrative organization, community relationships. organizational duties, problems
of pupil personnel, instructional leadership. Special emphasis on supervision responsibilities of the secondary principal.

6344 Educational Leadership through Human Relations. (3-0) Credit, 3 hours. An examination of human relations concepts involved in educational administration. Consideration of such topics as the relationships involved in the social setting and educational environment; personal qualities of leadership conducive to good human relations; decision making; techniques of effective communications, group dynamics.

6345 Administration and Staff Personnel. (3-0) Credit, 3 hours. Organization and administration of professional staffs, positions, and relationships, professional ethics, welfare, professional involvement in policy and curriculum, faculty development.

6346 Administrative Theory. (3-0) Credit, 3 hours. Major emphasis on administrative theory as related to decision-making: the first half of the course devoted to the consideration of administrative theories and principles, and the second half to the practical application of theory and principle to recent and/or continuing problems of school administration. Decision-making is emphasized as being the nature and substance of administration.

6347 The Superintendency. (3-0) Credit, 3 hours. The basic issues of problems confronting the superintendent, such as school buildings: planning, contracting, financing, equipping; fiscal and business management; taxation; budgeting, accounting; administering special services; transportation, food services, custodial services; management of personnel.

6348 Public School Laws. (3-0) Credit, 3 hours. Constitutional provisions, statutory laws, court decisions, and regulations governing public schools, with special reference to state and federal relationships.

6349 School Finance and Business Management. (3-0) Credit, 3 hours. Study of school funds on local, state, and federal level; budgeting, data processing; other systems of accounting, and reporting. Supply management as related to school efficiency. Maintenance of buildings, grounds, and equipment.

6350 Administrative Educational Design-A Systems Approach. (3-0) An advanced course to assist the educator in assembling school components into logical order. Emphasis will be on total system improvement, based upon continuing assessment and analysis. Balance and inter-relationship of all school district components will be structured into functional systems by each student.

6353 Adult and Continuing Education. (3-0) Credit, 3 hours. Organization of adult basic education, GED, community service, and other programs designed to assess and meet the needs of out-of-school youth and adults. Special consideration to curriculum, scheduling, financing, and evaluation of programs.

6354 Community Education Administration. (3-0) Credit, 3 hours. Organization and administration of Community Education programs in public schools. Includes initiation of the process, program development, financing, evaluation, and the role of the Community Education administrator.

6355 Teaching Strategies in Adult Education. (3-0) Credit, 3 hours. Study of teaching strategies and learning styles of the adult student. Includes determining adult performance levels, learning activities for adults and evaluating adult performance.
Emphasis will be on teaching Adult Basic Education (ABE), and Graduate Education Development (GED).

6378 Problems in Education. (3-0) Credit, 3 hours. Individual problems not related to thesis or research problems. Designed to place emphasis on selected areas of study. A letter following the course number on the permanent record will indicate the area of emphasis according to this code: (B) Administration, (C) Counseling, (H) Supervision, (I) Elementary, (J) Secondary. For postgraduates only.

6647 Studies in the Humanities and Sciences. (6-0) Credit, 6 hours. An interdisciplinary approach to furnish administrative candidates with greater depth in the social sciences, humanities, and science. Although offered under the auspices of the Department of Education, the course is taught by a team of two or more members from the arts and sciences, supplemented by visiting lecturers. The aim is to give insight on man and his world, dealing with such sub-topics as Man in a Scientific Age, Man and Society, Man and Communication Media.
The department of health and physical education

graduate faculty

Avent, Henrietta Hempstead, Professor of Health and Physical Education. B.A., University of Kentucky; M.A., New York University; D.P.E., Indiana University.

Calsbeek, Frank, Associate Professor of Health Education and Physical Education. B.S., Augustana College; M.S., University of Illinois; Ed.D., University of Oregon.

Hoffman, Keith Farrell, Associate Professor of Health and Physical Education. B.S. in Ed., Southwest Texas State University; M.S. in Ed., Texas A & I University; D.Ed., North Texas State University.

Keck, Theodore Frederick, Professor of Health and Physical Education and Chairman of the Department of Health and Physical Education. B.S., Minot State College; M.S., Ph.D., University of Oregon.

Lancaster, Dorothy Mearle, Professor of Health and Physical Education. B.A., Baylor University; M.Ed., The University of Texas at Austin; Re.D., Indiana University.

Patton, Robert Edward, Professor of Health and Physical Education. B.S. in Ed., M.Ed., Southwest Texas State University; Ed.D., North Texas State University.

Scott, Charlotte Robinson, Associate Professor of Health and Physical Education. B.S., M.A., Ph.D., Texas Woman’s University.

Smith, Jean Amelia, Professor of Health and Physical Education. B.S., M.S., McMurry College; D.P.E., Indiana University.

degree programs

The mission of the graduate program in the Department of Health and Physical Education is to provide students with a broad base of knowledge and high level competencies in their selected areas of interest. The department offers graduate study culminating in either of two degree options: Master of Arts or Master of Education. The degree of Master of Arts consists of at least 30 hours, including a thesis with a major of 18-24 hours in Physical Education or Health Education. The degree of Master of Education consists of at least 36 hours, including a major of 21 hours and a 15 hour minor or a split minor of 9 and 6 hours. In both degree programs, a student may major in one of these degree fields and minor in the other.

The members of the graduate faculty of the department have derived their education and training from a number of different universities and represent a variety of specializations.

Because the department has a large instructional program for the general university student in addition to broad undergraduate physical education, health education, and recreation major programs, the variety of activities for teaching specialties of assistant instructors is extensive.
Financial Aids Program: Assistantships are available to students who have definitive admissions status and who have expertise in a wide range of activities. Stipends range from approximately $2,750 to $4,000, the amount of which depends upon the teaching assignment. Applications should be directed to Chairman, Health and Physical Education Department.

courses offered

physical education

5303 Advanced Athletic Training. (3-0) Credit, 3 hours. Advanced research into new methods concerning the prevention and care of athletic injuries, with special added emphasis on rehabilitation through use of physiotherapy techniques.

5304 Psychology for Motor Learning. (3-0) Credit, 3 hours. The nature of scientific research, theories of behavior development, learning and acquisition of motor skills, empirical principles of learning in relation to motor learning, and structural, physiological, and other factors in relation to motor skill performance.

5305 Advanced Course in Tests and Measurements in Physical Education. (3-0) Credit, 3 hours. Intensive study of existing tests in physical education and the methods of test construction. Laboratory experiences are provided.
Prerequisite: Undergraduate courses in tests and measurements or equivalent.

5321 Workshop for Teachers in Physical Education. (3-0) Credit, 3 hours. Current problems in physical education, intramurals, curriculum, public relations, and athletics.

5345 Supervision of Physical Education. (3-0) Credit, 3 hours. Basic principles of supervision as they apply to the field of physical education; the planning of programs and the techniques of supervision, such as interviewing, conferences, evaluation procedures and visitation procedures. Where possible, the students are given opportunities to practice these techniques.

5346 Literature and Research in Physical Education. (3-0) Credit, 3 hours. Directed reading, reports and discussions of the current literature in the field of physical education, a critical analysis of research techniques and the locations and securing of information, together with the steps necessary to the solution of research problems in this field.

5347 Problems in Physical Education. (3-0) Credit, 3 hours. This course follows Physical Education 5346 and may be taken by a student who desires to work on a research problem. He gathers pertinent data and submits a report on the results of his research.
Prerequisite: Successful completion of Physical Education 5346.

5348 Organization of the Physical Education Program for the Elementary School. (3-0) Credit, 3 hours. A course designed to help students overcome problems existing at the elementary level through program planning and organization. Discussions on problems of instruction, evaluation, philosophy and objectives to be attained; role of the teacher in sharing responsibility with all other teachers and administrators; the unique contribution of the physical education teachers in the educational process, the concept of the teacher as a community member, and suggestions for the improvement of the quality of professional education.

*May be repeated once with different emphasis for additional credit.
5353 Curriculum Development in Physical Education. (3-0) Credit, 3 hours. The planning and operation of the total physical education program with special attention to overcoming difficulties peculiar to this field. Assistance will be given in preparing curriculum materials for specific purposes and situations.

5360 Administrative Problems in Physical Education. (3-0) Credit, 3 hours. Problems of organization and administration of the program in physical education, intramurals, and extramurals. The course brings together the phases of school administration and the relationship of the physical education program in the school and the community.

5361 Problems in Facilities and Equipment in Athletics and Physical Education. (3-0) Credit, 3 hours. Problems in planning, construction, operation, and maintenance of athletic and physical education facilities. The selection, budgeting, procurement, accountability and maintenance of equipment and supplies for athletics and physical education.

5370 Outdoor Education. (3-0) Credit, 3 hours. An introduction to outdoor education—its relation to the curriculum and the nature of experience-centered learning in the out-of-doors. The course may be repeated.

5390 Seminar in the Theory of Competitive Sports. (3-0) Credit, 3 hours. This course is concerned with the understanding and “why” of techniques and theories presently used in coaching competitive sports rather than their use and implementation. Topics such as psychological problems, legal aspects of coaching, recent training techniques and theory, Little League and Junior High competition, as well as topics of student interest will be included.

5391 Administrative Problems in Competitive Sports. (3-0) Credit, 3 hours. Problems of organization and administration of the various programs in competitive sports for men and women in the Junior High and Secondary and collegiate levels.

5399 or 5699 Thesis. Credit, 3 or 6 hours. Prerequisite: Successful completion of Physical Education 5346.

health education

5310 History and Philosophy of Health Education. (3-0) Credit, 3 hours. An intensive study is made of the historical development of the school health program and the current political and public health issues and cultural changes which influence the school program.

5315 Evaluation and Test Construction in Health. (3-0) Credit, 3 hours. An intensive study is made of existing tests in health, of the methods of test construction, and of curriculum and program evaluation procedures. Laboratory experiences are provided.

5320 Foundation of Public Health. (3-0) Credit 3 hours. In-depth study of past and current public health programs. State Health Department personnel will appear as guest consultants to familiarize students with the many existing programs of health for the people of Texas.

5321 Public Health Education. (3-0) Credit, 3 hours. This course deals with the theory and the process of education, change, planning, the use of media, problem-solving, and program evaluation in public health education.
5331 Seminar in Current Problems in Health Education. (3-0) Credit, 3 hours. Current national and international trends and problems in health which affect the school age. The course may be repeated once if the areas studied are different.

5340 Human Ecology. (3-0) Credit, 3 hours. This course deals with the biological relations between man, other living organisms and their environment. It is concerned with the relationships between the distribution of human groups with reference to material resources, and consequent social and cultural patterns.

5346 Literature and Research in Health Education. (3-0) Credit, 3 hours. A thorough study and critical analysis of health literature; special emphasis upon published and unpublished research studies. Types of research; development of research designs; procedures followed in the collection and treatment of data; general statistics for planning research designs, analyzing data and interpreting findings.

5347 Independent Study in Health Education Problems. (3-0) Credit, 3 hours. A course to be offered to graduate students to allow for independent study of one or more problems in health education that hold special interest or offer opportunity for professional improvement and growth. Open on an individual basis by special arrangement with the department chairman.
Prerequisite: Health Ed. 5346.

5399 or 5699 Thesis. Credit, 3 or 6 hours.
Prerequisite: Successful completion of Health Education 5346.
Ballard, John Roger, Professor of Industrial Arts. B.S., M.A., Southwest Texas State University; Ed.D., Texas A & M University.

Deck, William Luther, Professor of Industrial Arts. B.S., M.A., Southwest Texas State University; Ph.D., Ohio State University.

Rosser, Arthur James, Professor of Industrial Arts and Chairman of the Department of Industrial Arts. B.S., Wilmington College; M.A., Kent State University; Ph.D., Ohio State University.

Walker, Joe Wayne, Associate Professor of Industrial Arts. B.S., M.Ed., Ed.D., North Texas State University.

Windham, Billy Lee, Associate Professor of Industrial Arts. B.S. in Ed., M.A., Southwest Texas State University; Ed.D., Texas A & M University.

degree programs

The Department of Industrial Arts offers the degree of Master of Arts and Master of Education. The Master of Arts consists of at least 30 hours, with a major of 18-24 hours including a thesis, and a minor of 6-12 hours. The Master of Education consists of at least 36 hours, with a major of 21 hours without a thesis and a minor of 15 hours.

courses offered

5381 Industrial Methods and Production Technique. (3-0) Credit, 3 hours. This course will furnish industrial arts teachers selected information regarding the structure of modern manufacturing methods and techniques. Students gain insight into enlightened industrial practices. Selected examples of the technology of a specific industry and analysis of its methods so that basic principles of production and selected techniques may be brought to students in the typical school situation.

5382 Housing and Industrial Arts. (3-0) Credit, 3 hours. Policies and practices in construction and allied industries, and their relationships to the production of housing; development of teaching materials dealing with selected aspects of housing as a community, family, and individual problem; determination of housing studies within the framework of industrial arts.

5384 Technical Problems in Industrial Arts. (3-0) Credit, 3-6 hours. A course for the industrial arts teacher who needs to become acquainted with new developments within the industrial arts curriculum and for the graduate student who desires to strengthen certain experiences initiated in undergraduate courses. Plans will be developed upon an individual basis.

5385 Modern Industries. (3-0) Credit, 3 hours. A course to assist teachers of industrial arts with the problem of guiding high school students to sources of information on technical, social, and economic aspects of modern industries. Individual and group studies will be made. Results will be submitted in a form suitable for publication.
5387 Planning Advanced Industrial Arts Laboratories. (3-0) Credit, 3 hours. Studies in depth of architectural, engineering, and educational problems encountered in designing, equipping, arranging, and specifying facility requirements for advanced industrial arts courses at the senior high school level.

5388 New Developments in Industrial Arts. (3-0) Credit, 3 hours. Study of new concepts appearing in industrial arts since 1950 as a result of the increasing importance of technology.

5389 Curriculum Construction in Industrial Arts. (3-0) Credit, 3-6 hours. Techniques and procedures in selection, organization, and production of teaching materials for use in junior and senior high school courses. Course may be repeated once with different emphasis for additional credit.

5390 Research in Industrial Arts. (3-0) Credit, 3 hours. Identification, analysis, and evaluation of significant research in industrial arts education. Explanation of research techniques applicable to problems. Preparation of research reports with a view to publication.

5391 Supervision of Driver Education. (3-0) Credit, 3 hours. Review basic driver education; advanced techniques of teaching simulation; multi-car driving range; multi-media response system; concepts of supervision; practices of supervising behavior; instructional supervisory tasks; group processing; group interaction; interviewing; supervisory practices; scheduling teaching teams, instructors, and pupils. A research problem is to be done in the course.

5392 Supervision of Driver Education. (3-3) Credit, 3 hours. Intensive and extensive coverage of driver education; advanced techniques of driver and traffic safety; supervision and administration of driver and traffic safety; supervision and administration of the driving range; and problems in multi-media and simulation. A research problem will be done in this course.

5396 Technology for Teachers of Elementary Grades. (3-2) Credit, 3 hours. Course is composed of lectures, demonstrations, group and individual work, reports, laboratory work, term papers, in keeping with graduate course requirements. Experiences in the use of materials, tools, and projects adapted to the activity center of the elementary classroom.

5399 or 5699 Thesis. Credit, 3 or 6 hours.
department of psychology

graduate faculty

Hardesty, Walton Duane, Associate Professor of Psychology. B.S., M.S., Texas A & M University; Ed.D., The University of Houston.

Merryman, Sandra Stroud, Assistant Professor of Psychology. B.A., George Peabody College of Teachers; Ph.D., Indiana University.

McMahan, Jack, Assistant Professor of Psychology. B.A., M.A., Ph.D., University of Houston.

Oles, Henry John, Associate Professor of Psychology. B.A., Youngstown State University; M.A., Ph.D., University of Pittsburgh.

Sikes, Joseph Neville, Assistant Professor of Psychology. B.A., Carleton College; Ph.D., University of Texas at Austin.

Stimmel, David Theron, Professor of Psychology and Chairman of the Department of Psychology. B.A., M.A., Southern Methodist University; Ph.D., University of Michigan.

Wheeler, Richard Wade, Associate Professor of Psychology. B.S., M.A., Ph.D., The University of Houston.

Wright, Loyd S., Associate Professor of Psychology and Special Education. B.S., University of Houston; M.A., The University of Texas at Austin; Ed.D., University of Illinois.

degree programs

The Department of Psychology does not presently offer a major. A large number of graduate programs include a Psychology minor or a split minor of Psychology and Sociology.

courses offered

5315 Mental Hygiene. (3-0) Credit, 3 hours. Personality theory and development, and principles governing the development of human behavior; emphasis upon the various current theories of personality structure, experiences with the family, neighborhood, and school which are common to all individuals; especially designed for those majoring in counseling and special education.

5317 Group Processes and Interpersonal Dynamics. (3-0) Credit, 3 hours. A course designated to train future professionals in both the cognitive and personal issues related to group behavior.

5319 Techniques and Dynamics of Interviewing. (3-0) Credit, 3 hours. A survey of the principles and techniques of interviewing. Emphasis will be placed upon skills relative to the professional career aspirations of the student.
5320 **Advanced Statistics.** (3-0) Credit, 3 hours. A review of probability theory and parametric and non-parametric statistical techniques. Emphasis on the use of these techniques to interpret behavioral research studies.
Prerequisite: A course in undergraduate statistics.

5321 **Experimental Design.** (3-0) Credit, 3 hours. An overview of research methodology presented to develop an understanding of the essential characteristics of good behavioral research and to prepare students to conduct original research.

5322 **Measurement Principles in School Psychology.** (3-0) Credit, 3 hours. A broad survey of basic measurement theory including test reliability, validity, and the construction and interpretation of norms. Also includes a study of test construction practices and item selection techniques to enable the student to serve as a measurement consultant to the faculty of his school.

5330 **Psychology of Language.** (3-0) Credit, 3 hours. A study of the development of language in children, with emphasis on language perception and production and the task of learning verbal behavior.

5331 **The Emotional Problems of Childhood.** (3-0) Credit, 3 hours. An examination of the social and biological factors that produce emotional disturbances in children. Special emphasis will be placed upon emotional factors bearing most directly upon adjustment in school.

5332 **The Appraisal and Modification of Emotional Disturbances in Children.** (3-0) Credit, 3 hours. Techniques of assessing types and extent of emotional disturbances. Emphasis will be placed upon procedures for modifying behavior so as to aid the child's adjustment to the school situation.

5360 **Selected Topics in Psychology.** (3-0) Credit, 3 hours. An in-depth study of a set of selected topics of great current interest in psychology. The work is done on an individual basis with a faculty member.

5370 **Psychology of Learning.** (3-0) Credit, 3 hours. A study of the basic problems in the acquisition of responses, treating with such constructs as reinforcement, extinction, retention, forgetting, problem solving, motivation, and punishment. Major theories are treated through attention to classical experiments, but greatest emphasis is given contemporary research.

5371 **Learning Theory Applied to Behavior Modification.** (3-0) Credit, 3 hours. Presents procedures for behavior modification developed from learning theory. Behavioral intervention and management techniques applicable to groups and individuals are covered, with special emphasis given to delinquency and school psychology. Procedures reviewed include contingency management routines, behavioral contracting, time-out methods, and aversive therapy plans.
Prerequisite: Psychology 5370 or equivalent.

5385 **Industrial Social Psychology.** (3-0) Credit, 3 hours. Research findings and theoretical concepts concerned with social-structured problems in organizations. Topics covered include: The system concept, characteristics of social organization, organizational effectiveness, leadership, communication, and decision making.

The following are offered also as courses in Education. See the listings in the Education section for the respective course descriptions:
5313 Human Growth and Development I. (3-0) Credit, 3 hours.

5314 Human Growth and Development II. (3-0) Credit, 3 hours.

5354 Counseling Techniques for Personnel Workers. (3-0) Credit, 3 hours.

5357 Individual Testing. (3-2) Credit, 3 hours each.

The following course is offered also in the Department of Special Education. See the listing in the Special Education section for the description.

5364 Psychological Problems of the Mentally Retarded. (3-0) Credit, 3 hours.

5376 Assessment I (3-0) Credit, 3 hours. Standard individual test (i.e., WISC, WAIS, BINET) of general intelligence and special abilities and achievement, their theoretical and statistical bases; construction, administration, scoring, and interpretation of these instruments. Prerequisite: Twelve hours of advanced education, psychology, anthropology, or sociology, including a course in child development or child psychology, an introductory course in measurement, graduate standing and consent of instructor.

5377 Assessment II (3-0) Credit, 3 hours. Advanced investigations in personality dynamics and role expectations, projective instruments and their analysis; synthesis with interview, self report, psychometric, and sociometric data. Prerequisite: Assessment I, or its equivalent, graduate standing and consent of instructor.

5385 Industrial Social Psychology. (3-0) Credit, 3 hours. Research findings and theoretical concepts concerned with social-structured problems in organizations. Topics covered include: The system concept, characteristics of social organization, organizational effectiveness, leadership communication, and decision making.

5387 Behavioral Statistics With Computer Applications. (3-0) Credit, 3 hours. An extension of Statistics 5320 with emphasis on the analysis of variance, multiple correlation and an introduction to multivariate analysis. Students will learn to use the facilities of the computer center for data analysis. Prerequisite: Psychology 3387/5320.
department of special education

graduate faculty

Brooks, Alta Rae, Assistant Professor of Special Education. B.A., M.A., University of Kansas; Ph.D., University of Wisconsin.

Dolezal, Charles H., Associate Professor of Special Education and Chairman of the Department of Special Education. B.S., M.Ed., Ph.D., The University of Texas at Austin.

Dominguez, Olga Acevedo, Associate Professor of Special Education. B.A., Texas A & I University; M.Ed., Southwest Texas State University.

Toronto, Allen, Assistant Professor of Special Education. B.A., M.A., University of Utah; Ph.D., Northwestern University.

Ward, Doyle Glynn, Professor of Special Education. B.A., Harding College; M.A., University of Illinois; Ph.D., University of Missouri.

Wright, Loyd S., Associate Professor of Psychology and Special Education. B.S., University of Houston; M.A., The University of Texas at Austin; Ed.D., University of Illinois.

Zedler, Empress Young, Professor of Special Education. B.A., M.A., Ph.D., The University of Texas at Austin.

degree programs

A master's degree is offered in the Department of Special Education with majors in educational diagnostics, emotional disabilities, language/learning disabilities, and speech pathology. Those who have an undergraduate major or background in mental retardation may pursue a generic master's degree in Special Education leading to several additional areas of certification in Special Education.

SWT maintains interagency relationships for supervised practicum of graduate students at the University of Texas Medical School at San Antonio, Baptist Medical Center in San Antonio, San Antonio Rehabilitation Center, and Texas Rehabilitation Hospital in Gonzales.

The training program is clinically oriented. Research is encouraged in all clinical areas. The university's speech, hearing, and language clinic operates on a twelve-month basis, and is well known throughout the state and nation as a treatment center for communication disorders. It is fully accredited by the Professional Services Board of the American Boards of Examiners of Speech Pathology and Audiology of the American Speech and Hearing Association. Graduate students in speech and language pathology utilize the clinic for research in the behavioral sciences. Interaction between physicians, parents, families, classroom teachers, clinicians and clients is maintained at all times.

The graduate training program is fully accredited by the Education Training Board of the ABESPA of ASHA. Prerequisite for graduate study in speech pathology is at least 24 semester-hours of undergraduate background in speech pathology and audiology.
If preprofessional training is sufficient, the Master of Arts degree may be obtained with 30 semester-hours including a thesis, or the Master of Education degree with 36 semester-hours and no thesis. The nonthesis program is usually selected to insure academic and practicum requirements for clinical competence.

courses offered

5301 Seminar in Speech Pathology. (3-0) Credit, 3 hours. Discussions of various areas of speech pathology with adaptation to individual needs and emphasis upon pilot studies.

5330 Language/Learning Disabilities. (3-0) Credit, 3 hours. This is a course for the graduate student who did not have an introductory course in Language/Learning Disabilities at the undergraduate level, and who is seeking certification to teach Language/Learning Disabled pupils in the classroom. Language and learning models will be studied. Special emphasis will be given to the concept of developmental dyslexia.

5331 Seminar in Stuttering. (3-0) Credit, 3 hours. The course emphasizes description of the characteristics of stuttering at various stages of the disorder, and theories and research in the areas of etiology and management. Lecture and independent student review of literature.

5332 Cleft Palate and Voice Disorders. (3-0) Credit, 3 hours. The first part of the course deals with the anatomy and physiology of cleft palate and appropriate management techniques. The remainder deals with the characteristics and management techniques for other types of voice disorders.

5333 Language and Articulation Disorders in Children. (3-0) Credit, 3 hours. Normal development of speech and language contrasted with atypical development resulting in various types of articulation and language disorders. Articulation discussed as a phonological component of language.

5334 Diagnostic and Prescriptive Procedures for Disorders in Language/Learning and/or Behavior. (3-0) Credit, 3 hours. Procedures for evaluating and prescribing treatment for school children perceived as presenting problems in language/learning and/or behavior will be studied. Special emphasis will be placed upon developing sensitivity in observation of such children.

5335 Recognition and Informal Assessment of Special Education Problems in Early Childhood. (3-0) Credit, 3 hours. This course is designed for teachers and other personnel in Early Childhood Education. It will prepare the student to recognize and make informal assessment of significant deviations in the areas of motor, cognitive, perceptual, sensory, communicative, and emotional development of the preschool child.

5336 Cerebral Palsy and Other Neuromotor Disabilities. (3-0) Credit 3 hours. This course will cover the major clinical syndromes, such as Cerebral Palsy which result from neurological damage or malfunctions. It is specifically recommended for students of speech pathology and hearing therapy who have not had a course in neurological bases of communication at the undergraduate level.

5342 Aphasia and Related Disorders. (3-3) Credit, 3 hours. A study of language disabilities in children and adults.
5343 Advanced Clinical Practice. (3-0) For graduate students doing supervised clinical practice in the various areas of special education as indicated by section code (n), (e), (f), (g), (m), (o), and (p) as described under Special Education 5389. Supervised clock hours may be obtained with cases which stimulate an advanced level of specialized study. Special emphasis upon evaluative procedures.

5359 Phonetics of American English. (3-0) Credit, 3 hours. This is a course in phonology of the English language. It is for the graduate student who has not had a previous course in English phonetics. The phonemes and the intonation and stress patterns of American English and its dialects will be studied.

5360 The Education of Exceptional Children. (3-0) Credit, 3 hours. A survey course to orient students to the program and problems in the education of all types of exceptional children: the mentally retarded, slow learner, gifted, blind, partially sighted, deaf, hard of hearing, orthopedically handicapped, emotionally disturbed, socially maladjusted, brain-injured, and those with limited vitality, speech disorders, and language disorders. Field trips, lectures, and films supplement class lectures.

5362 Readings in Special Education. (3-0) A critical and thorough investigation of the literature in an area of (n) Audiology, (e) Mental Retardation, (f) Physically Handicapped or Minimally Brain Injured, (g) Speech and Hearing Therapy, (m) Language/Learning Disabilities, (o) Emotionally Disturbed or (p) Educational Diagnostician; reported in a formal paper and discussed in seminar meetings with the appropriate instructor. Required of all graduate majors in special education who are candidates for the Master of Education degree.

5363 Differential Diagnosis of Communication Problems. (3-0) Credit, 3 hours. This is a graduate course in the nature and causes of communicative problems designed especially for educational diagnosticians, teachers of language/learning disabilities, and speech pathologists who need experience in identifying, evaluating or prescribing therapy for persons with communication disorders.

5364 Psychological Problems of the Mentally Retarded. (3-0) Credit, 3 hours. A course dealing with the theories which attempt an explanation of intellectual deficiency. Etiologies and psychological mechanisms of mental retardation will be studied to provide bases for improvement in the performance of mentally retarded pupils.

5365 Education of the Neurologically Impaired. (3-0) Credit, 3 hours. Basic characteristics of physical disorders resulting in motor dysfunction and/or learning disabilities with special emphasis upon disorders deriving from neurological impairment; general principles for educating pupils with such impairments in public schools. Visiting lecturers from medical and para-medical fields will assist in teaching this course.

5368 Methods and Materials for Teaching Pupils With Specific Language Disabilities. (3-0) Credit, 3 hours. Methods and materials for teaching elementary classroom subject matter such as reading, spelling, and arithmetic to pupils with physical handicaps. Special emphasis upon teaching the child with cerebral palsy and related disorders.

5371 The Exceptional Child in the Family. (3-0) Credit, 3 hours. This course is to develop the understanding and professional skill of special education teachers and clinicians in counselling parents of exceptional children. Parents of children enrolled in demonstration classes or in the clinic will actively participate in the class. This class is for
graduate students who have not had Psychology 5365 or its equivalent on the undergraduate level.

5373 Structured Language for the Slow Learner. (3-0) Credit, 3 hours. Basic factors of oral and written English: vocabulary, syntax, rhythm, and intonation, and sound elements that create academic difficulties for pupils with specific language disorders derived from environmental influences or neurological impairment.

5389 Internship Practicum. Laboratory and clinical teaching experiences in the areas of special education. When scheduled out of town, a special fee is charged; see the fee section of this catalog. The area will be indicated according to the following with the appropriate letter to be used as a section code: (n) Audiology, (e) Mental Retardation, (f) Physically Handicapped or Minimally Brain Injured, (g) Speech and Hearing Therapy, (m) Language/Learning Disabilities, (o) Emotionally Disturbed, (p) Educational Diagnostician.

5399 or 5699 Thesis. Credit, 3 or 6 hours.
school of health professions

department of allied health sciences

graduate faculty

Johnson, Charles M., Assistant Professor of Allied Health Sciences. B.S., East Texas State University, M.S., Ph.D., Texas A & M University.

Jones, Ruth Buckhannon, Assistant Professor of Allied Health Sciences. B.S.N., University of Texas School of Nursing; M.A., The University of Texas.

Mooney, Robert Thurston, Assistant Professor and Chairman of the Department of Allied Health Sciences. B.S., M.Ed., Texas A & M University.

Stewart, James Carl, Jr., Assistant Professor of Allied Health Sciences. B.A., Texas A & M University; M.S., North Texas State University; Ph.D., University of Oklahoma.

degree programs

The Department of Allied Health Sciences offers the degree of Master of Science in Health Professions with a specialization in Allied Health Education. Generally the specialization consists of 23 hours, with a minor of 15 hours or a split minor of 9 hours and 6 hours. There is no thesis requirement, but there is a required internship. To be eligible for admission to the program one must have served for at least one year in a generally recognized area of allied health care.

The program is designed to present a logical association of related concepts and operational principles. Its structure allows expansion of the student’s educational background while permitting him to remain an integral part of the total health care workforce. Its format raises the level of knowledge to meet the employer’s expectations while constantly satisfying the public’s demand for increased health care services.

The keystone of the program rests in the non-traditional approach of out-reach education, i.e. offering educational opportunities in locations of increasing health care demands. (The program is currently being offered in Temple, Austin, and San Antonio, as well as on the San Marcos campus). These opportunities are designed to be presented at times (late afternoon and nights) specifically to avoid conflict with the student’s employment.

courses offered

5111 Problems in Allied Health Sciences. (1-0) Credit, 1 hour. An in-depth study of a singular topic or a related problem being faced by practicing educators in the rapidly changing health care industry. Special emphasis will be placed on the topic’s current relevance and its utilitarian value to the participant. Course may be repeated if the topic studied is different.
5211 Problems in Allied Health Sciences. (2-0) Credit, 2 hours. An in-depth study of a narrow range of topics or related problems being faced by practicing educators in the rapidly changing health care industry. Special emphasis will be placed on the topic’s current relevance and its utilitarian value to the participant. Course may be repeated if the areas studied are different.

5311 Research Methods in Allied Health Sciences. (3-0) Credit, 3 hours. A practical methods course in which the student will investigate the sources of library research data available in his own immediate area. The various techniques of original research will be explored and the student will be required to complete a research paper, with graduate level quality which will include library and original research work.

5312 Curriculum Development in Allied Health. (3-0) Credit, 3 hours. Development of a program of studies and curriculum. Students will receive practice in the planning, development, evaluation, and implementation of a specific health service related course.

5313 Techniques of Instructional Development and Evaluation. (3-0) Credit, 3 hours. Use of observational techniques in the analysis of instruction in health service institutions. Emphasis will be placed upon methods of development and improvement of instructional skills among health service staff and the subsequent systematic observation and analysis of instruction.

5320 Educational Administration in Allied Health. (3-0) Credit, 3 hours. Organization and administration of professional staffs, positions and relationships within the allied health environment. Special emphasis will be placed on duties of the department director/chairman; faculty development; program evaluation; administration of curriculum development and curriculum changes; and the guidance/counseling program. Additional emphasis will be placed on professional ethics, staff welfare, community relations, office management, policy implementation, staffing, budget preparation, and the physical plant.

5331 Creative Application of Technology to Instruction in Allied Health. (3-0) Credit, 3 hours. A course designed to promote the creative and innovative application of software and hardware technology to instruction in the allied health sciences. Emphasis will be placed upon slide and video-tape productions, multi-screen presentations, gaming and simulation, facility design, and administration.

5343 Training Needs Analysis. (3-0) Credit, 3 hours. The course will take the health care educator through a step by step process of determining and analyzing learning needs in a health care institution. Various approaches will be explored to determine the number and kinds of learning needs in an individual institution. Once discovered, the learning needs will then be translated into learning objectives.

5440 Practicum Internship A. (8-0) Credit, 4 hours. Practical experience in development of curriculum units to meet actual needs of the allied health sciences. Emphasis will be placed upon needs assessment, objective identification, content planning and evaluation. Additional emphasis will be placed upon the direction of curriculum development projects. Prerequisite: AHS 5312 and approval of Department Chairman or Advisor.

5441 Practicum Internship B. (8-0) Credit, 4 hours. Practical field experience in instruction to meet the needs of the allied health sciences. Emphasis will be placed upon the choice of instructional skills and methods to meet the needs of student population and content. Additional emphasis will be placed upon the direction and evaluation of instruction in field settings. Prerequisite: AHS 5440.
department of health administration

graduate faculty

Belchic, Albert Mitchell, Assistant Professor of Health Administration. B.S., Louisiana State University; J.D., Southern Methodist University; M.S., Health Care Administration, Trinity University.

Conley, Francis A., Assistant Professor of Health Administration. B.A., The University of Texas at Austin; D.D.S., Baylor University; M.S.H.P., Southwest Texas State University.

Green, Don C., Professor of Health Administration and Dean of the School of Health Professions. B.S., M.S., Sam Houston State University; Ph.D., Texas A & M University.

Rappaport, Bernard, FACHA, Associate Professor of Health Administration. M.A., George Washington University; M.H.A., Baylor University.

Scott, Daniel Joseph, Assistant Professor of Health Administration. B.A., Baker University; B.S., Florida Technological University; M.S., Business Administration, Rollins College, Florida.

Winfield, Darwin E., Assistant Professor of Health Administration and Chairman of the Department of Health Administration. B.S., Louisiana Polytechnic Institute; M.S., Hospital Administration, Northwestern University.

degree programs

Graduate students who desire a concentrated study in Health Care Management may study a selection of specialized courses offered by the Department of Health Administration. Health Care Management is offered as a major field of study within the Master of Science in Health Professions degree. Generally the specialization consists of 23 hours, with a minor of 15 hours or a split minor of 9 hours and 6 hours. There is no thesis requirement, but there is a required internship.

The Department of Health Administration offers courses designed to enhance the career mobility of persons in the health care profession and to provide a solid base of academic and directed experiences for persons who may desire entry into the field of Health Administration.

Principal areas of study include Hospital and Health Service Finance, Problems and Seminars in Health Administration, Personnel and Labor Relations in Health Services, Problems of Law in Health Services, Planning for Health Services, and other areas of study as may be deemed appropriate to the industry and the times.

The hospital provides the setting for many classroom studies and directed experiences. Sessions and complete courses are offered in health care facilities in San Antonio, Austin, and Temple as well as on the campus at San Marcos.
courses offered

5111 Topics in Health Administration. (1-0) Credit, 1 hour. An in-depth study of a singular topic or a related problem being faced by practicing managers in the rapidly changing health care industry. Special emphasis will be placed on the topic's current relevance and its utilitarian value to the participant. Course may be repeated if the topic studied is different.

5211 Topics in Health Administration. (2-0) Credit, 2 hours. An in-depth study of a narrow range of topics or related problems being faced by practicing managers in the rapidly changing health care industry. Special emphasis will be placed on the topic's relevance and its utilitarian value to the participant. Course may be repeated if the topic studied is different.

5310 Seminar in Health Administration. (3-0) Credit, 3 hours. Current trends and problems in health administration. Designed to place emphasis in selected areas such as administration, finance and organization. A research paper and presentation is required of each student. Course may be repeated if the areas studied are different.

5314 Departmental Administration. (3-0) Credit, 3 hours. Duties and problems of hospital department heads. The overall principles of administration of hospital departments and practical problems that occur in organizing, installing, and administering a department.

5315 Health Care Management. (3-0) Credit, 3 hours. This course is designed specifically to improve the effectiveness of the technically oriented health care professional who desires to move into a management or supervisory position in a health care facility. This course deals with the essentials of managing human resources in the environment in which the health care professional will work. Specifically, the course will deal with human leadership, motivation, decision making, manager-employee relationships, problem solving and other subjects and specific methods and techniques for achieving meaningful and productive relationships with subordinates in the health care environment.

5317 Medical Jurisprudence. (3-0) Credit, 3 hours. A review of legal responsibilities of the health care professional, the legal controls imposed upon the professional and the institution. There will be a review of legal consents, patient's rights, and a broad range of the legal pitfalls that must be understood by all health care professionals and are of extreme importance to the health care supervisor.

5318 Personnel Administration and Labor Relations in Health Care Facilities. (3-0) Credit, 3 hours. This course will present a study of personnel management in the health care facility and the atmosphere in which it functions. The health care facility will be surveyed as a system of human behavior. There will be a study of the supervisor role in interviewing, hiring, training, evaluating, promoting, and terminating of employees. Legislation affecting personnel in hospitals, nursing homes, and other health care facilities will be studied. A review of labor relations including collective bargaining and the activities of organized labor will be included in this course.

5340 Inter-Personal Relations in Health Care. (3-0) Credit, 3 hours. This course will focus on the development of attitudes and interpersonal perceptual skills essential to effective performance in any health care institution. The primary objective will be to increase the health care supervisor's and educator's sensitivity to the individual psychological needs of patients, their families, and employees. Upon completion of the
course, the health care supervisor and/or educator should be able to instruct their own employees in the employee-patient relationship.

5345 Health Planning: Methods and Practice. (3-0) Credit, 3 hours. Study of planning theories and principles and their application to comprehensive health planning; systems development for regional health care. Analysis of the social, educational, economic and political factors which influence health planning. Review of national and state legislation for health planning and the problems of implementation at local, regional, and national levels.

5350 The Community/Regional Health Planning Agency. (3-0) Credit, 3 hours. History, development, functions, processes, legislation, problems, impact, etc. of the agency; the agency as policy-maker; the agency involvement in Mental Health Planning; Environmental Health Planning.

5351 Development of Health Services Resources and Delivery Systems. (3-0) Credit, 3 hours. Will include needs assessment; proposal development (RFP's); evaluation of proposals and projects; health project review; review and comment aspects.

5352 Legislation and Jurisprudence for Health Planning. (3-0) Credit, 3 hours. Federal/State legislation affecting health and health planning; impact of legislation; influences on development of legislation; health lobbies, the body of administrative law as it relates to health administrators and planners.

5353 Health Facilities (Institution) Planning. (3-0) Credit, 3 hours. Basic construction planning/design principles and regulations; licensure laws, regulations controlling, impacting on health care organizations.

5440 Practicum Internship A. (8-0) Credit 4 hours. The first half of a graduate practicum for students who are technically trained at the baccalaureate level. Students with a specialization in management will participate in a health service facility based practicum.
Prerequisite: 15 hours from degree plan.

5441 Practicum Internship B. (8-0) Credit, 4 hours. The second half of the graduate practicum. The student is allowed more participation during this practicum period to develop managerial skills.
Prerequisite: HA 5440.

5442 Seminar: Research in Health Care for Planners. (4-0) Credit, 4 hours. Selected topics for intensive investigation and analysis in seminar sessions. Topics of historical nature and of current interest to be selected for discussion. With the consent of the Graduate Student's Committee, students may be allowed to take this course as an independent study. Specific areas will be selected by the instructor; may be a research project or case study. Report to be submitted and defended by the student.

5644 Internship in Health Planning. (6-0) Credit, 6 hours. Graduate practicum for students with a specialization in Health Planning. Experiences providing opportunities for observation, participation and practical application of Health Planning skills. These experiences can be gained with county, state and federal agencies and the State Legislature.
APPLICATION FOR ADMISSION
TO THE GRADUATE SCHOOL OF
SOUTHWEST TEXAS STATE UNIVERSITY
San Marcos, Texas 78666

1 Name ____________________________ 2 Soc. Sec. No. ____________ 3 Sex: Male ______ Female _____
   Last            First           Middle         Maiden

4 Permanent Address
   Street                    City                County                State                Zip

5 How long have you lived at this address? _______________ 6 Country of Citizenship _______________

7 Current telephone ____________________ 8 Place of Birth ___________________ 9 Date of Birth __________________
   Month          Day         Year

10 Marital Status: Single _____ Married _____ 11 Occupation ________________________________

12 Person to notify in case of emergency (Please indicate: Spouse _____ Parent _____ Guardian _____)
   Name: First       Middle        Last
   Telephone

13 An aptitude score on the Graduate Record Examination is required for admission of all students entering
   the Graduate School. The official score must be received in the Graduate Office no later than the end of
   the first long semester following the student's admission to the Graduate School.

   Date taken or scheduled to take __________________  Location _______________________

14 College and Universities attended: Two (2) official transcripts are to be sent to the Graduate Office
   from each university attended. Two transcripts from each university attended must be on file
   in the Graduate Office with a completed application before processing of the application will begin.

   Name of Institution         State  From       To       Degree       Date

   Name of Institution         State  From       To       Degree       Date

   Name of Institution         State  From       To       Degree       Date

   Name of Institution         State  From       To       Degree       Date

Failure to list institutions previously attended may result in dismissal from Southwest Texas State University.

15 Are you currently enrolled? ______ Yes _____ No ____

16 Undergraduate degree held or to be received: _______________ Date _______________

   Institution granting degree ________________________________

17 Graduate Major ____________________________________________ Thesis □ Non Thesis □

   Graduate Minor ____________________________________________

18 Do you hold a teaching certificate? ______ Do you plan to complete a degree from Southwest Texas State
   University? ______ Date you plan to enroll in Graduate School at Southwest Texas State University __________

19 Check block that describes your ethnic origin (required for state and federal reports) White-Non-Hispanic
   Origin □ , American Indian or Alaskan Native □ , Black-Non Hispanic Origin □ , Asian or Pacific Islander
   □ , Hispanic □ , Non-resident aliens/Foreign Nationals □ , Other □

20 I have read and understand the requirements (as outlined in the SWTSU catalogue) for Texas
   Residency. Please indicate whether or not you are eligible for Residency Fees. I am eligible for
   residency: Yes ______ No ______

21 Certification: I hereby certify that all of the above statements made by me are true and complete
   and that I have not omitted any relevant information. I also certify that I will inform the SWTSU
   Graduate Office of any changes in place of residence of myself or any other changes in the above record which
   occur between now and the opening date of the term for which I am applying.

   Signature of Applicant __________________________ Date __________

SWT is an equal opportunity institution—providing educational opportunities without regard to
race, color, creed, sex or national origin. This policy extends to all programs and activities of the
University.
graduate school checklist explanations

File official application for admission with the Graduate Office no later than 30 days before the beginning of the semester. Applications may be obtained in the back of the Graduate Bulletin or by writing the Graduate Office. Two official transcripts showing all college work attempted should be ordered. Personal copies are not acceptable. Allow enough time for the transcripts to arrive at least 30 days before the beginning of the semester. Timing is very important. Applications received after the 30-day deadline are extremely difficult to process in time for registration.

The admissions process is not complicated. If the applicant has a GPA of 2.5 or above on a scale of 4, admission is granted and the applicant's credentials are sent to the pertinent department for approval. If the GPA is less the 2.5, the applicant must take the Graduate Record Examination and score 900 or above. The applicant should also realize that admission to Graduate School is not the same as admission to a specific degree program. The departmental graduate advisor may decline to accept an applicant if there is reason to believe that the applicant might not be qualified for a particular program.

Once an applicant has been admitted by a department a degree outline is designed for the applicant and returned to the Graduate Office. A copy of the degree outline is sent to the student. AN APPLICANT IS NOT OFFICIALLY IN THE GRADUATE SCHOOL OF SOUTHWEST TEXAS STATE UNIVERSITY UNTIL AN OFFICIAL DEGREE OUTLINE HAS BEEN SIGNED BY THE APPLICANT. Any course taken prior to the signing of the official degree outline is taken at the student's own risk. Any changes in the degree outline must be made by means of official notification to the Graduate Office by the departmental graduate advisor.

All graduate students are required to take the Graduate Record Examination. Even students admitted on the basis of a superior grade point average must take the GRE during the first long semester following the student's acceptance to Graduate School at Southwest Texas State University.

If the degree outline calls for a thesis the student must confer with the departmental graduate advisor and select a thesis committee and topic. At the earliest possible time a Thesis Proposal bearing the signatures of the members of the thesis committee and the graduate advisor must be submitted to the Graduate Dean for approval. Failure to secure approval before beginning research can cause major problems for the student. A student must be registered for Thesis 5399 or 5699 in any semester in which supervision is received and must be registered in Thesis 5399 or 5699 in the semester of graduation.

Several tasks await the student during the proposed semester of graduation. Of greatest importance is the Application for Diploma. One must pay the required fee of $8.00 and complete the necessary forms in the Graduate Office at the beginning of the semester. In the summer this must be done during the first summer semester. In any case, students should check the published deadlines in the official university calendar. Failure to pay the required fee and complete the necessary forms will result in postponement of graduation. If the student pays the fee and completes the forms, but fails to graduate for any reason, the entire process must be duplicated the following semester. Results of the comprehensive examination and clearance of all “I” grades must be in the office no later than 10 days prior to graduation.

Candidates who have completed the necessary forms and have paid the necessary fees will receive from the University by mail a general checklist of clearances to be made and the procedures to be followed.