ODESSA COLLEGE

BULLETIN

Volume Forty-Eight Spring 1994

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An Equal Opportunity College

Rodney Hernandez

ODESSA COLLEGE BULLETIN 1994-1995

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HISTORY:

Odessa College Opened in 1946

The past of Odessa College is interwoven with growth and progress. A review of the history of the college reveals a success story of a public institution that has maintained the community college spirit and has grown by serving the people of Ector County and the Permian Basin.

Beginning with 184 students in 1946, the enrollment of the college, its programs and its services have grown steadily through the last 48 years. The various curricula, programs and services offered by Odessa College now enroll more than 21,000 people during a single school year. During a long semester, approximately 5,000 students are enrolled in the university-parallel and occupational-technical credit courses. During the same semester, thousands of other students are enrolled in continuing education courses.

Many university-parallel courses are offered for students planning to complete four-year degrees at senior colleges or universities. Most university-parallel courses are freely transferable to four-year and upper-level institutions. Former Odessa College students have a phenomenal record of success in the fields of accounting, law, medicine, music, public administration and teaching.

More than 30 occupational/technical programs are offered at the college and additional ones are planned to meet the needs of citizens who want to learn new or improve existing skills. Approximately one-half of the students are enrolled in occupational/technical programs.

Initially housed in temporary quarters in the old Odessa High School, the first classes of Odessa College were conducted after public school hours in late afternoons and evenings. Ector County taxpayers purchased a five-acre plot in the 2500 block of the Andrews Highway and in 1949 authorized the building of Baskin Hall, the first permanent structure for the institution.

The campus grew to 15 buildings on a 35-acre plot by 1960. Today, the $50 million campus spreads over 80 acres and includes some 25 buildings that house more than 150 classrooms, laboratories and other facilities.

A $7 million Sports Center with more than 110,000 square feet of floor space was opened in 1984 to house athletics, physical education and community recreation activities.

In 1986, KOCV-TV, Channel 36, carried on Channel 13 by the local cable company, officially signed on the air with quality public television programs. In 1989, KOCV-FM, the college's radio station, began airing National Public Radio programming.

Among recent additions is the W.D. Noel Center, donated by the Rexene Corp. in 1989 and located in downtown Odessa. With more than 40,000 square feet, Noel Center houses Adult Basic Education and the Business Incubator. In 1993 the Cosmetology Department moved into its own building at 200 W. University.

As the college has grown, so has its effectiveness. Quality education and academic excellence have long been hallmarks of Odessa College. As community needs change, Odessa College will restructure its programs to better serve its constituents.

Odessa College is a mature college with a youthful spirit, and the institution is proud of its heritage. It sees its successful past as a strong foundation for an even greater future.

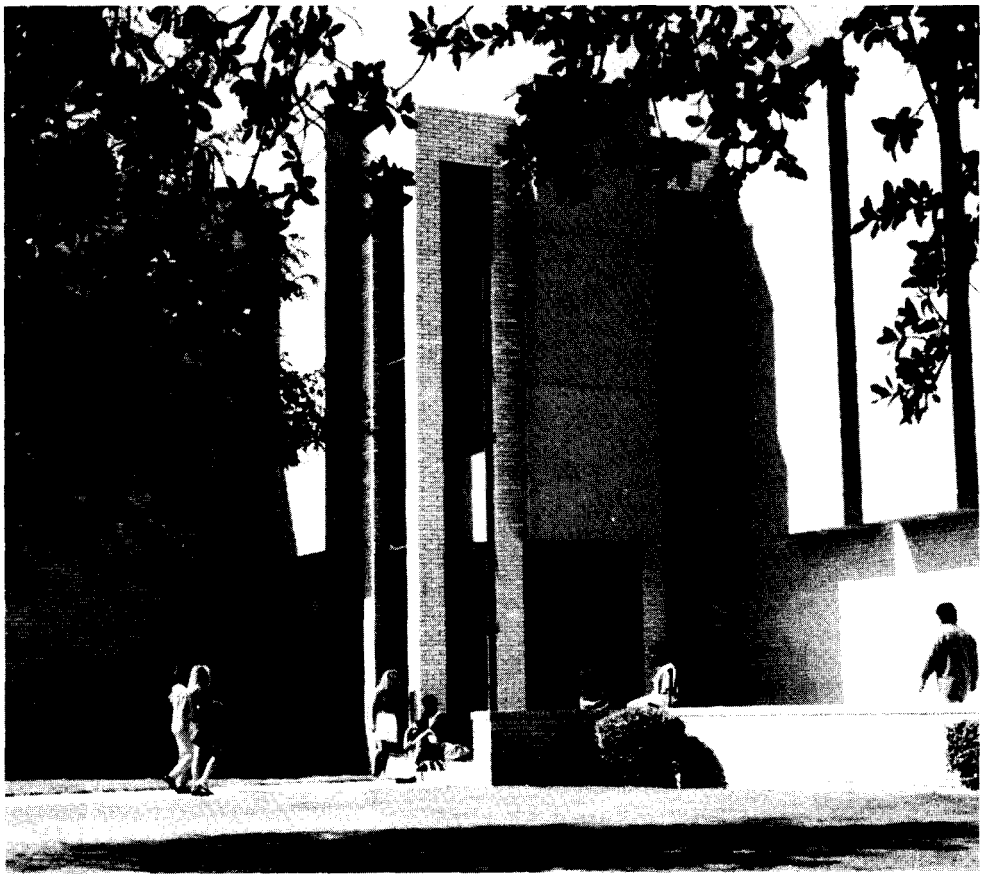
Odessa

Odessa College is located in Odessa, Texas, a progressive West Texas city of more than 100,000 people midway between Fort Worth and El Paso.

Odessa is a cultural, recreational, educational, medical, retail and wholesale trading center for a region as large as several Eastern Seaboard states combined. Two hospitals provide a wide variety of medical services for the region, and the Texas Tech Regional Medical School is adjacent to Medical Center Hospital, providing additional health opportunities.

Odessa boasts a daily newspaper, five television stations, 18 radio stations and more than 150 churches. Students completing their studies at Odessa College may continue their education at the University of Texas of the Permian Basin (UTPB), which offers baccalaureate and master's degree programs. Numerous cultural, intellectual and recreational activities are available for the area's citizens.

Odessa is a growing, progressive city where friendly people heartily support Odessa College and its efforts. Newcomers find Odessa a good place to live and to raise a family, as well as an enjoyable place to study and to work.



Odessa College's Mission

Our mission as trustees, administrators, faculty, and staff at Odessa College is to provide the finest educational opportunities possible for all Ector County area residents. As a comprehensive community college, OC provides a full range of educational services within the limits of available financial, physical, and human resources. Educational programs and services are designed to help people achieve their individual potential, to enrich their lives and to help them become responsible and productive members of society.

To achieve our primary mission, we are committed to providing a quality academic program that offers 1) the first two years of college and pre-professional programs to prepare students within a field of study for further education, 2) occupational-technical training to provide students with the comprehensive skills and knowledge required in specialized fields, 3) general and developmental education to prepare students for effective involvement in society, 4) a continuing education division that quickly responds to local needs and desires, and 5) personal enrichment. At OC we demonstrate our ongoing commitment to academic excellence by employing a qualified faculty and staff; by providing adequate facilities, equipment, and learning resources; by providing small personalized classes; and by having successfully prepared thousands of students to move on to universities and employment.

Since OC serves an increasingly diversified society, our admissions policy assures educational opportunities for every person who has the desire and capacity to profit from post-secondary education, regardless of race, religion, gender, handicap, or economic status. We also are committed to reflect local diversity among our students, faculty, and staff in order to create a climate that responds to and enriches our varied student body.

We realize that college life is not limited to the academic area. We care about the comprehensive development of students and want to be involved in student success in the broadest possible sense. To help ensure our students achieve this success, we try to maintain a nurturing environment, and we dedicate a substantial portion of the college's resources to a qualified counseling staff that provides academic, career, and personal guidance. Moreover, we provide financial aid services, health services, sports facilities, and a variety of activities including intercollegiate and intramural athletics, art exhibits, concerts, dances, and speakers.

As part of the commitment to our primary mission, we recognize the essential role our institution must play in the cultural and intellectual life of the general community. OC maintains a long-standing tradition of involvement in the greater community and has served a remarkable proportion of the population over the years. Attesting to our tradition of community involvement is OC's sponsorship of Adult Basic Education, which provides adult literacy programs, GED, the high school diploma, English as a second language, preparation for U.S. citizenship, and other training. Our Continuing Education division provides short-term vocational training tailored to meet specific local business needs, updates training for professional and vocational occupations, and provides other training in other nonvocational and practical skills required for keeping up with rapid technological advances in the community as well as for personal enrichment and well-being. Furthermore, we provide off-campus extension centers and instructional telecourses to meet post-secondary needs of the outlying Permian Basin, public radio and television stations, and an intercollegiate athletics program. We also extend a standing invitation to all Permian Basin residents to share OC's facilities and cultural events.

At OC, our educational philosophy grants all faculty members the liberty to conduct instruction as they judge most appropriate within the bounds of instructional effectiveness and academic responsibility. To protect faculty members and their individuality, we subscribe to a clearly stated policy of academic freedom.

As part of OC's mission, we also accept a responsibility to college employees. To this end, the college offers staff development, wellness and retirement programs, employee health and disability insurance, access to cultural and sporting events and facilities, and vacation and sick leave. Additionally, as resources allow, we are committed to identifying new and innovative ways of stimulating professional and personal development of all OC employees.

1994 COLLEGE CALENDAR

Summer 1994

(During the summer, Odessa College operates on a four-day week and closes on Friday)

Summer I

Early Registration ..... April 25-29 (Mon-Fri)
Holiday (Memorial Day) ..... May 30 (Mon)
Registration ..... June 1 (Wed)
Classes Begin ..... June 6 (Mon)
Late Registration ..... June 6-7 (Mon/Tues)
Last Day for Schedule Changes ..... June 7 (Tues)
Fourth Class Day ..... June 9 (Thurs)
Last Day to Drop or Withdraw With a "W" ..... June 29 (Wed)
Holiday ..... July 4 (Mon)
Last Class Day ..... July 12 (Tues)
Final Exams, End of Term ..... July 13 (Wed)

Summer II

Early Registration ..... April 25-29 (Mon-Fri)
Registration ..... July 12 (Tues)
Classes Begin ..... July 14 (Thurs)
Late Registration ..... July 14-18 (Thurs-Mon)
Last Day for Schedule Changes ..... July 18 (Mon)
Fourth Class Day ..... July 20 (Wed)
Last Day to Drop or Withdraw With a "W" ..... Aug 9 (Tues)
Last Class Day ..... Aug 18 (Thurs)
Final Exams, End of Term ..... Aug 19 (Fri)

Fall 1994

Early Registration ..... April 25-29 (Mon-Fri)
Early Registration (cont'd) ..... July 27 - Aug 11 (Wed-Thurs)
Payment Deadline for Early Registration ..... Aug. 15 (Mon)
Nine Month Faculty Return ..... Aug 22 (Mon)
Registration for New Students Only ..... Aug 18 (Thurs)
Registration for Returning Students ..... Aug 23 (Tues)
Classes Begin at 5 p.m. ..... Aug 24 (Wed)
Late Registration ..... Aug 25 - Sep 6 (Thur-Tues)
Last Day for Schedule Changes ..... Sept. 6 (Tues)
Holiday (Labor Day) ..... Sept 5 (Mon)
TASP Administration ..... Sept. 17 (Sat)
Mid-Semester ..... Oct 18 (Tues)
Deadline for Fall Degree Application ..... Nov 4 (Fri)
Last Day to Drop or Withdraw With a "W" ..... Nov 11 (Fri)
TASP Administration ..... Nov. 12 (Sat)
Thanksgiving Holiday (Begins at 5 p.m.) . Nov 23-26 (Wed-Sat)
Early Registration for Spring and Midwinter ..... Nov 28 - Dec 9 (Mon-Fri)
Last Class Day ..... Dec 9 (Fri)
Final Exams ..... Dec 12-15 (Mon-Thurs)
End of Semester ..... Dec 16 (Fri)
Christmas Holiday for 12 month employees ..... Dec 19-30 (Mon-Fri)

1994

May

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1995 COLLEGE CALENDAR

1995

January

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May

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June

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July

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30	31					

August

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20	21	22	23	24	25	26
27	28	29	30	31		

Midwinter Session 1994-95

Registration ..... Nov 28 - Dec 9, 1994 (Mon-Fri)
Late Registration ..... 8-9:30 a.m., Dec 27 (Tues)
Schedule Changes ..... 8-9:30 a.m., Dec 27 (Tues)
First Class Day ..... Dec 27 (Tues)
Last Day to Drop or Withdraw With a "W" ..... Jan 6 (Fri)
Final Exams, End of Term ..... Jan 11 (Wed)

Spring 1995

Early Registration ..... Nov 28 - Dec 9 (Mon-Fri)
Offices Open ..... Jan 2 (Mon)
Twelve Month Faculty Return ..... Jan 2 (Mon)
Nine Month Faculty Return ..... Jan 9 (Mon)
Registration for New Students ..... Jan 10 (Tues)
Registration for Returning Students ..... Jan 12 (Thurs)
Holiday (Martin Luther King Day) ..... Jan 16 (Mon)
Classes Begin ..... Jan 17 (Tues)
Late Registration ..... Jan 17-26 (Tues-Thurs)
Last Day for Schedule Changes ..... Jan 26 (Thurs)
Deadline for Spring Degree Application ..... Feb 17 (Fri)
Mid-Semester ..... March 9 (Thurs)
Spring Break ..... March 13-17 (Mon-Fri)
Last Day to Drop or Withdraw With a "W" ..... April 7 (Fri)
Early Registration for Fall ..... April 24-28 (Mon-Fri)
Last Class Day ..... May 5 (Fri)
Final Exams ..... May 8-11 (Mon-Thurs)
Graduation Day ..... May 12 (Fri)

Summer 1995

First Term

Holiday (Memorial Day) ..... May 29 (Mon)
Registration ..... May 31 (Wed)
Classes Begin ..... June 5 (Mon)
Late Registration ..... June 5-6 (Mon-Tues)
Last Day for Schedule Changes ..... June 6 (Mon)
Last Day to Drop or Withdraw With a "W" ..... June 28 (Wed)
Holiday (Independence Day) ..... July 4 (Tues)
Last Class Day ..... July 11 (Tues)
Final Exams, End of Term ..... July 12 (Wed)

Second Term

Registration ..... July 11 (Tues)
Classes Begin ..... July 13 (Thurs)
Late Registration ..... July 13-17 (Thurs-Mon)
Last Day for Schedule Changes ..... July 17 (Mon)
Last Day to Drop or Withdraw With a "W" ..... Aug 8 (Tues)
Last Class Day ..... Aug 17 (Thurs)
Final Exams, End of Term ..... Aug 18 (Fri)

Degrees and Certificates

In fulfilling its commitment to provide a high quality educational program to the citizens of the Ector County area, Odessa College is authorized by the state of Texas to provide instruction leading to a variety of degrees and certificates. The college also offers courses in some subject areas — accounting, anthropology, earth science, economics, engineering, geography, philosophy, religion, etc. — as an enhancement to the general education requirements for other disciplines.

Associate in Arts

The Associate in Arts Degree is awarded to students who complete curriculum requirements of the first two years of study of a standard baccalaureate program, primarily in the liberal arts, fine arts or business fields. Known as the A.A., the degree is not designed to provide students with specific vocational skills. The Associate in Arts is available in the following areas:

- Art
- Business Administration
  (leading to a B.B.A. in Accounting, Finance, Personnel, Management and Marketing)
- Education (Elementary/Secondary)
- English
- Foreign Language
- General Studies* (no major)
- Humanities (Art Option)
- Mass Communications
- Music
- Psychology
- Sociology
- Social Science
  (Economics, Government, History)
- Speech

Please refer to page **246 of this catalog for requirements. By following these basic requirements and selecting electives in the area of the anticipated baccalaureate, students can earn the A.A. designed to meet specific degree and transfer requirements for a designated institution. See your counselor or departmental advisor for specific information.*

Associate in Science

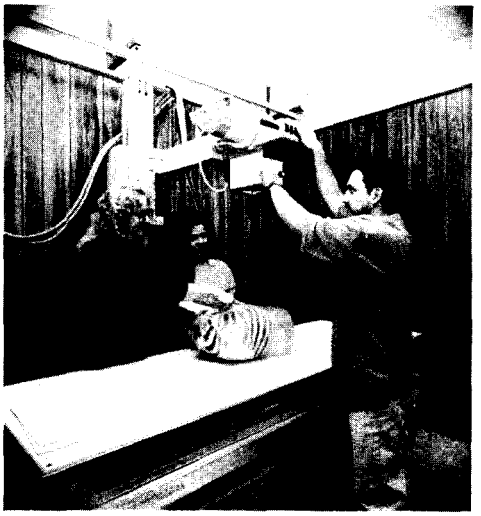
The Associate in Science Degree is awarded to students who complete curriculum requirements of the first two years of study of a standard baccalaureate program, primarily in the fields of mathematics or science. Known as the A.S., the degree is not designed to provide students with specific job skills. The Associate in Science is available in the following disciplines:

- Biology
- Chemistry
- Computer Science
- General Studies* (no major)
- Geology
- Mathematics
- Physical Education
  (Exercise and Sport Science
  Athletic Training Options)
- Physics

Please refer to page **246 of this catalog for requirements. By following these basic requirements and selecting electives in the area of the anticipated baccalaureate, students can earn the A.S. designed to meet specific degree and transfer requirements for a designated institution. See your counselor or departmental advisor for specific information.*

Pre-Professional Courses of Study

In those areas classified as pre-professional — dentistry, engineering, medicine, optometry, pharmacy, veterinary medicine — students are advised to pursue the degree plan for the Associate in Science without a declared major. Pre-law students should follow the general degree plan for the Associate in Arts. Courses not specifically required should be selected according to the requirements of the institution that will eventually grant the degree.



Associate in Applied Science

The Associate in Applied Science degree is awarded to students who complete the prescribed degree plan in a designated technical studies area. Known as the A.A.S., this degree is designed to provide students with comprehensive skills and knowledge in a specialized field, with the goal of employment in that field. While the degree is usually job oriented, all A.A.S. degrees will have at least some, if not most, courses transfer to senior institutions through the general education requirements in the degree and/or inverted baccalaureate degree plans. The student should check the requirements of the senior institution before planning a course of study. See your counselor or faculty advisor for more information. Odessa College awards the A.A.S. degree in the following areas:

Automotive Technology and
Diesel Mechanics
(Automotive and Diesel Options)
Building Trades
Child Development
Clinical Laboratory Sciences
Computer Information Systems
Cosmetology
Culinary Arts
Drafting Technology
Educational Aide
Electrical and Electronics Technology
Emergency Medical Technology
Fire Technology
Heating, Ventilation and Air Conditioning
Human Services
(Alcohol and Drug Abuse)
Law Enforcement/Criminal Justice
Maintenance Technology
Management
(General, Marketing, Fashion Merchandising and Industrial Supervision Options)
Metal Trades
(Welding and Machine Options)
Nursing
Office Systems Technology
(Office Systems and Medical Emphasis Options)
Petroleum Technology
Photography
Physical Therapist Assistant
Radiologic Technology
Respiratory Care
Surgical Technology

Certificate of Technology

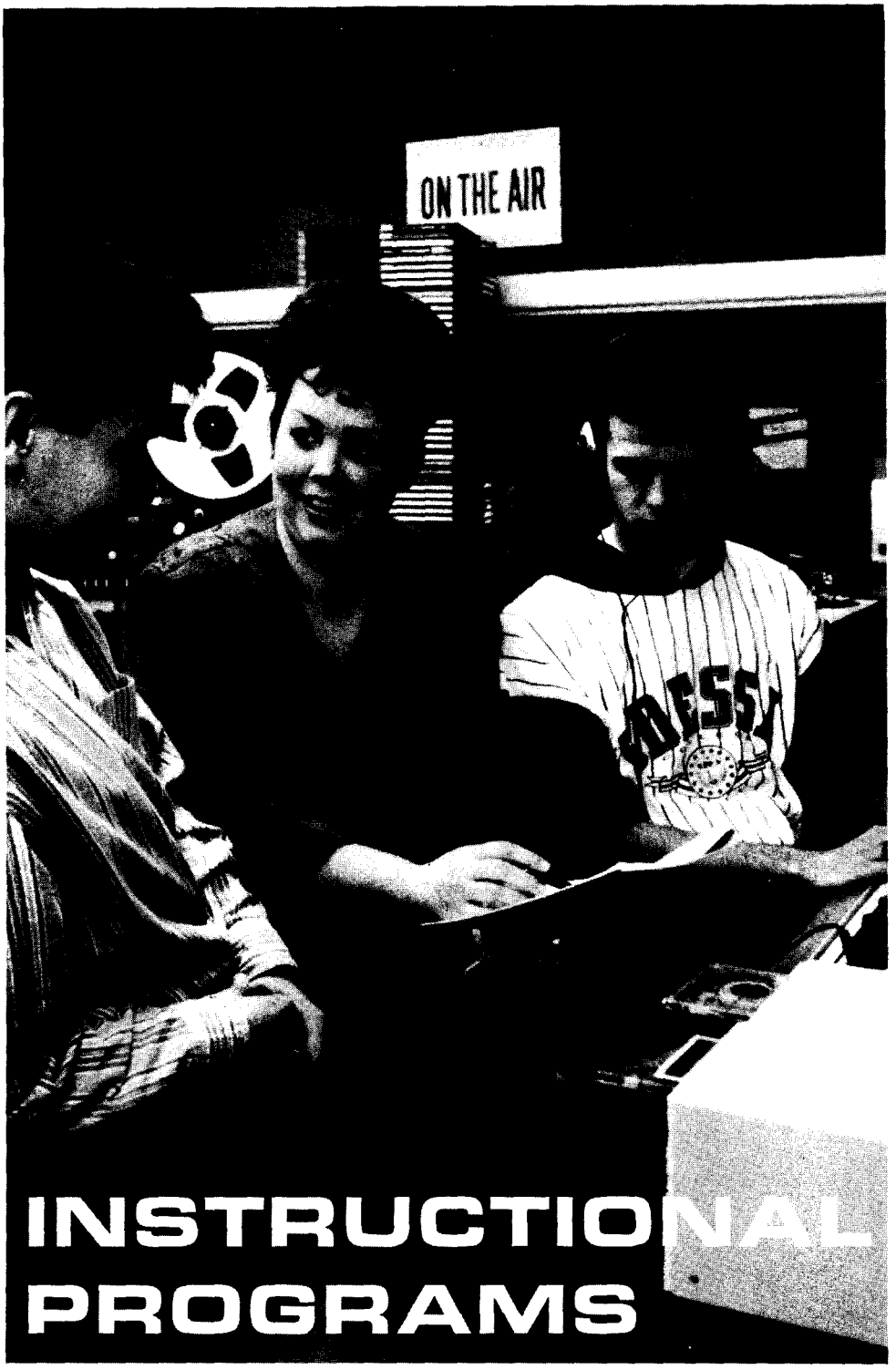
In the technology fields, it is not uncommon for a student to want to learn the skills necessary for employment without earning the A.A.S. To indicate both completion and technical competency, Odessa College awards a Certificate of Technology in the following fields (refer to individual departmental sections for specific course and semester hour requirements):

- Automotive/Diesel Technology
- Building Trades
- Child Development
- Drafting Technology
- Electrical/Electronics Technology
- Heating, Ventilation and Air Conditioning
- Law Enforcement/Criminal Justice
- Maintenance Technology
- Management
- Metal Trades
- Office Systems Technology
- Petroleum Technology

Certificate of Completion

The Certificate of Completion is given by Odessa College after completion of a designated course of study that concentrates on specific job skills, licensure requirements or subject matter mastery. Odessa College awards a Certificate of Completion in the following vocational fields (refer to individual departmental sections for specific course and semester hour requirements):

- Cosmetology Instructor
- Cosmetology Operator
- Culinary Arts
- Emergency Medical Technician (Basic)
- Emergency Medical Technician (Intermediate)
- Emergency Medical Technician (Advanced)
- Fire Fighter (Volunteer)
- Fire Fighter (Basic)
- Law Enforcement Academy
- Phlebotomy
- Respiratory Therapy Technician
- Surgical Technology
- Vocational Nursing (LVN)



INSTRUCTIONAL PROGRAMS

Key To Course Description

SCANS Numbers

The word "SCANS" comes from the U.S. Department of Labor's "Secretary's Commission on Achieving Necessary Skills." The numbers found in the Odessa College course descriptions refer to the list of 11 skill areas below. Three of the 11 skill areas refer to the foundation skills of reading, writing and mathematics. The other eight areas refer to workplace skills, such as working with clients and co-workers, that courses develop as a part of the teaching-learning process. The OC faculty has evaluated all of their courses and written the following course descriptions, keyed to SCANS, to help communicate to students and other members of the public the educational and workplace foundation that courses will help students attain as they successfully complete their course of study at Odessa College.

(SCANS 1, 2, 3 = FOUNDATION SKILLS)

1. READING
2. WRITING
3. MATHEMATICS

(SCANS 4 - 11 = WORKPLACE SKILLS)

4. RESOURCE USE AND DEVELOPMENT (such as time, materials, money, and facilities)
5. INTERPERSONAL DEVELOPMENT (such as working as member of a team, serving clients and customers, negotiation, leadership, and working with diversity)
6. INFORMATION SKILLS (such as acquiring, evaluating, organizing, maintaining, interpreting, communicating, and using computers to process information)
7. SYSTEMS AND OTHER COMPLEX INTER-RELATIONSHIPS (such as understanding organizational systems, working within social and technological groups, distinguishing and improving the systems design)
8. SELECTING, APPLYING, AND MAINTAINING A VARIETY OF TECHNOLOGIES
9. CREATIVE THINKING, PROBLEM SOLVING, AND DECISION MAKING
10. DEVELOPING PERSONAL QUALITIES (such as responsibility, self-esteem, sociability, self-management, integrity and honesty)
11. LISTENING AND SPEAKING

Accounting *(see Business Administration)*

Anthropology *(see Geology, Anthropology, and Geography)*

Art

Faculty: Delmos Hickmott, chair; Barry Phillips; Barry Phillips III.

The Odessa College Art Department exists to provide quality art education for all members of the community. Art students become aware of humanistic values and learn the importance of doing quality work while developing skills in creating studio art, so that they may become successful artists, continue studies at universities, and become intelligent consumers of visual art. Course offerings are based upon the recommended transfer curriculum of the Texas Association of Schools of Art and approved by the Texas Higher Education Coordinating Board. A professionally active faculty is committed to teaching studio art and maintains labs for design, drawing, painting, printmaking, sculpture, pottery, and jewelry. The department also offers a variety of art appreciation courses in a convenient, self-paced format. Beginning level courses require no previous experience in art study. The department welcomes all students who are interested in learning about visual art and sponsors scholarships for students considering art as a major.

Course of Study for Associate in Arts Degree (ARTS)

	Semester Hrs
General Education Requirements	**35-37**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
**Foreign Language, Math or Science	6-8
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
*PHED (Any two one-hour activity courses)	2
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	3
Elective (must be outside the major area)	**3**
Major Requirements	**27**
ARTS 1316 Drawing I	3
ARTS 1311 Design I	3
ARTS 1303 Art History Survey I	3
ARTS 1317 Drawing II	3
ARTS 2323 Figure Drawing I	3
ARTS 1304 Art History Survey II	3
ARTS 1312 Design II	3
Elective (any sophomore level ARTS courses)	**6**
Total Semester Hours	**65-67**

**PHED 1100 should be the first course taken in physical education.*

***Six to eight semester hours in same discipline.*

Art Courses

ARTS 1301 Art Appreciation (Self-Paced) (ART 1300)
(3-0) .....3 hours
Develops the ability to enjoy visual art and understand its importance. Introduces basic art theory, forms, and history. Specialized courses in African Art, Mexican Art, Contemporary Art and Contemporary Film Appreciation are offered on a rotating basis. (SCANS 9) Prerequisite: None.

ARTS 1303 Art History Survey I (ART 1371)
(3-0) .....3 hours
Builds knowledge of the world's great civilizations, their art and artists, and the relationship of art to culture from prehistoric times through the 1400s. Develops the ability to identify, describe and interpret major works in the history of visual art. (SCANS 6) Prerequisite: None.

ARTS 1304 Art History Survey II (ART 1372)
(3-0) .....3 hours
Builds knowledge of the world's great civilizations, their art and artists, and the relationship of art to culture from the 1300s to the present. Develops the ability to identify, describe and interpret major works in the history of visual art. (SCANS 6) Prerequisite: None.

ARTS 1311 Design I (ART 1321)
(2-4) .....3 hours
Develops the skill to create visually exciting drawings, paintings, and multi-media art works. Introduces the principles/elements of two-dimensional design, plus basic art concepts, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: None.

ARTS 1312 Design II (ART 1322)
(2-4) .....3 hours
Develops the skill to create visually exciting sculpture in wood, clay, and cast metals, including lost-wax plaster investment bronze casting. Introduces the principles/ elements of three-dimensional design, plus basic art concepts, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: ARTS 1311.

ARTS 1316 Drawing I (ART 1311)
(2-4) .....3 hours
Develops the skill to create realistic drawings from various subjects in the natural and manufactured environment. Emphasizes line and value drawings in pencil, charcoal, and ink. Introduces basic art concepts, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: None.

ARTS 1317 Drawing II (ART 1312)
(2-4) .....3 hours
Develops the skill to create expressive drawings emphasizing the use of color. Presents basic art concepts, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: ARTS 1316.

ARTS 2311 Design III (ART 2325)
(2-4) .....3 hours
Develops the ability to create a series of two-dimensional or three-dimensional artworks emphasizing individual expression in a particular media and technique. (SCANS 9) Prerequisite: Instructor approval.

ARTS 2316 Painting I (ART 2321)
(2-4) .....3 hours
Develops the skill to create expressive paintings using images from the environment and the imagination. Presents advanced concepts of two-dimensional design, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: ARTS 1316 and ARTS 1311 or instructor approval.

ARTS 2317 Painting II (ART 2322)
(2-4) .....3 hours
Develops the skill to create a series of paintings emphasizing individual expression in a particular painting medium and technique. (SCANS 9) Prerequisite: ARTS 2316 or instructor approval.

ARTS 2323 Figure Drawing I (ART 2323)
(2-4) .....3 hours
Develops skill in drawing the human figure. Emphasizes handling of form, movement, volume, and proportion using a variety of media. (SCANS 9) Prerequisite: ARTS 1316 or instructor approval.

ARTS 2324 Figure Drawing II (ART 2324)
(2-4) .....3 hours
Develops the skill to create a series of figure drawings emphasizing individual expression. (SCANS 9) Prerequisite: ARTS 2323.

ARTS 2326 Sculpture I (ART 2391)
(2-4) .....3 hours
Develops the skill to create visually exciting sculpture in clay, wood, welded and cast metals, including lost-wax plaster investment bronze casting. Presents advanced concepts of three-dimensional design, sculpture techniques, studio processes, and media essential to the creation of visual art. (SCANS 9) Lab fee required. Prerequisite: ARTS 1312 or instructor approval.

ARTS 2327 Sculpture II (ART 2392)
(2-4) .....3 hours
Develops the skill to create a series of sculpture emphasizing individual expression in a particular sculpture medium and technique. (SCANS 9) Lab fee required. Prerequisite: ARTS 2326.

ARTS 2333 Printmaking I (ART 2361)
(2-4) .....3 hours
Develops the skill to create original prints using relief, intaglio, and screen printing techniques. Presents advanced concepts of two-dimensional design, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisite: ARTS 1311 and ARTS 1316 or instructor approval.

ARTS 2334 Printmaking II (ART 2362)
(2-4) .....3 hours
Develops the skill to create a series of prints emphasizing individual expression in a particular printmaking medium and technique. (SCANS 9) Prerequisite: ARTS 2333.

ARTS 2341 Jewelry I (ART 2341)
(2-4) .....3 hours
Develops the skill to create original, functional jewelry using fabrication, fusing, casting and stone setting techniques. Presents advanced concepts of two-dimensional design, studio processes, and media essential to the creation of effective visual art. Lab fee required. (SCANS 9) Prerequisite: None.

ARTS 2342 Jewelry II (ART 2342)
(2-4) .....3 hours
Develops the skill to create original jewelry emphasizing individual expression. Lab fee required. (SCANS 9) Prerequisite: ARTS 2341.

ARTS 2346 Pottery I (ART 2381)
(2-4) .....3 hours
Develops the skill to create original pottery using coil, slab, and wheel techniques. Presents bisque, glaze, sawdust, and raku firings, plus application of pottery glazes. Lab fee required. (SCANS 9) Prerequisite: None.

ARTS 2347 Pottery II (ART 2382)
(2-4) .....3 hours
Develops the skill to create original pottery emphasizing individual expression. Lab fee required. (SCANS 9) Prerequisite: ARTS 2346.

ARTS 2366 Watercolor Painting I (ART 2311)
(2-4) .....3 hours
Develops the skill to create expressive watercolor paintings using images from the environment and the imagination. Presents advanced concepts of two-dimensional design, techniques, studio processes, and media essential to the creation of effective visual art. (SCANS 9) Prerequisites: ARTS 1316 or instructor approval.

ARTS 2367 Watercolor Painting II (ART 2312)
(2-4) .....3 hours
Develops the skill to create a series of watercolor paintings emphasizing individual expression. (SCANS 9) Prerequisite: ARTS 2366.

Automotive Technology and Diesel Mechanics

Faculty: Jurl Davis, chair; Steve Mapes.

Maintaining and servicing automobiles and diesel-powered vehicles and equipment is a thriving business and a very important activity in the American economy. The automotive/ diesel service field is so widespread and fast growing that many excellent career opportunities are open to the person with proper qualifications. While a Certificate of Technology with an emphasis in either Automotive or Diesel Technology will prepare the student to be an effective employee, the Associate in Applied Science Degree provides the necessary educational background for advancing to positions of even greater responsibility in the industry.

Course of Study for Associate in Applied Science Degree

Automotive and Diesel Technology

Semesters Hrs

General Education Requirements **17**
ENGL 1301 Composition and Rhetoric [redacted]
[redacted] .....[redacted] 3
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech 3
COSC 1301 Introduction to Computer Systems 3
GOVT 2301 U.S. and Texas Government 3
MATH 1372 Technical College Algebra or
MATH 1314 College Algebra or
MATH 1371 College Algebra for Business 3
*PHED (Any two one-hour activity courses) 2

Elective (must be outside the major area) **3**

**PHED 1100 should be the first course taken in physical education.*

(In addition to the 20 semester hours listedabove, a student must select one of the following options)

Automotive Option

	Semester Hrs
Major Requirements	**46**
AUTO 1502 Introduction to Automotive Engine Maintenance and Rebuilding	5
AUTO 1503 Transmissions and Power Trains	5
AUTO 1504 The Automotive Chassis	5
AUTO 2377 Cooperative Work Experience	3
AUTO 2501 Automotive Electrical Systems	5
AUTO 2502 Heating and Air Conditioning	5
AUTO 2503 Automotive Fuel and Emissions	5
AUTO 2504 Automotive/Diesel Electronics I	5
AUTO 2505 Automotive/Diesel Electronics II	5
*AUTO elective (minimum 3 semester hours)	3
Total Semester Hours	**66**

**AUTO 1301 Specialized Electronics Mathematics or AUTO 1505 Automotive Diesel*

Diesel Mechanics Option

Major Requirements	**35**
DESL 1501 Principles of Diesel Engines	5
DESL 1503 Electrical Systems and Control Circuits	5
DESL 1504 Fuel and Emissions Systems	5
DESL 1507 The Diesel Chassis	5
DESL 2377 Cooperative Work Experience	5
DESL 2501 Transmissions, Power Trains and Accessories	5
DESL 2503 Caterpillar Diesel Engines or DESL 2506 Cummins Diesel	5
Related Requirement	**13**
AUTO 2504 Automotive/Diesel Electronics I	5
AUTO 2505 Automotive/Diesel Electronics II	5
*AUTO elective (minimum 3 semester hours)	3
Total Semester Hours	**66**

**AUTO 1301 Specialized Electronics Mathematics or AUTO 1505 Automotive Diesel*

Certificates of Technology are available in the following job-specific fields.
See the program chairman for course requirements and Permian Basin job opportunities.

Automotive Technology Certificates of Technology

Air Conditioning and Heating

	Semester Hrs
ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
AUTO 2501 Automotive Electrical Systems	5
AUTO 2502 Heating and Air Conditioning	5
Total Semester Hours	**16**

Chassis

ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
AUTO 1502 Introduction to Automotive Engine	5
AUTO 1504 The Automotive Chassis	5
Total Semester Hours	**16**

Drivability

	Semester Hrs
ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
AUTO 2503 Automotive Fuel and Emissions	5
AUTO 2504 Automotive/Diesel Electronics I	5
AUTO 2505 Automotive/Diesel Electronics II	5
Total Semester Hours	**21**

Automotive Electronics Technician

ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
AUTO 1301 Specialized Electronics Math	3
AUTO 2501 Automotive Electrical Systems	5
AUTO 2504 Automotive/Diesel Electronics I	5
AUTO 2505 Automotive/Diesel Electronics II	5
Total Semester Hours	**25**

Diesel MechanicsCertificates of Technology

Caterpillar

	Semester Hrs
ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
DESL 1504 Fuel Emissions Systems	5
DESL 2503 Caterpillar Engines	5
Total Semester Hours	**16**

Cummins

ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
DESL 1504 Fuel Emissions Systems	5
DESL 2506 Cummins Diesel Engines	5
Total Semester Hours	**16**

Detroit Diesel

ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
DESL 1501 Principles of Diesel Engines	5
DESL 1504 Fuel Emissions Systems	5
Total Semester Hours	**16**

Diesel Electronics Technician

ENGL 1312 Report Writing	3
COSC 1301 Introduction to Computer Systems	3
AUTO 1301 Specialized Electronics Math or TMTH 1370 College Mathematics	3
DESL 1501 Principles of Diesel Engines	5
DESL 1503 Electrical Systems and Control Circuits	5
DESL 1504 Fuel Emissions Systems	5
AUTO 2504 Automotive/Diesel Electronics I	5
AUTO 2505 Automotive/Diesel Electronics II	5
Total Semester Hours	**34**

Automotive Courses

AUTO 1301 Specialized Electronics Mathematics
(3-0) .....3 hours
Designed to provide an understanding of mathematics principles, formulate electronic theories and solve problems encountered by automotive technicians. The student will learn to recognize electronic symbols used in schematic drawings and perform electronic calculations with Ohms Law. Lab exercises are designed for students to use their reasoning ability to solve problems and make decisions. (SCANS 3,6,7,9) Prerequisite: Fundamental knowledge of mathematics or consent of department chair.

AUTO 1502 Introduction to Automotive Engine Maintenance and Rebuilding
(4-4) .....5 hours
Presents theory and practice in basic principles of repair and maintenance of internal combustion engines. Includes study of engine designs and materials and proper use of hand and special tools used in the repair and maintenance of the automotive engine and its supporting systems. Students will use service manuals to organize technical information used to rebuild engines and maintain support systems. Students will use reasoning ability to recognize component failures. Students will learn to read and use precision measuring equipment and calculate clearances. the reading of technical material is required. (SCANS 1,3,4,6,7,8,9) Lab fee required. Prerequisite: None.

AUTO 1503 Transmissions and Power Trains
(4-4) .....5 hours
Provides technical studies and practice in repair and maintenance of automotive transmissions, differentials and related assemblies. Students will use service manuals to organize and diagnose transmission symptoms. Decision making and reasoning ability will be developed in lab exercises. the reading of technical materials is required. (SCANS 1,2,3,5,6,7,8,9,10) Lab fee required. Prerequisite: None.

AUTO 1504 The Automotive Chassis
(4-4) .....5 hours
Emphasizes repair procedures related to brakes, front-end alignment and suspension systems. The student will use brake lathes, computer aligning equipment as well as non-computer aligners. the student will calculate alignment measures in degrees, fractions, and metrics. Lab exercises are designed to develop reasoning and decision making ability regarding alignment problems. The reading of technical materials is required. (SCANS 6,7,9) Lab fee required. Prerequisite: None.

AUTO 1505 Automotive Diesel
(4-4) .....5 hours
Includes theory and practice in principles for repair and maintenance of the automotive diesel engine. Student will use manuals to assist in diagnosis of component failures and engine rebuilding. The use of precision measuring equipment will be used to restore engines back to specifications. Working with others, students in the lab will develop reasoning abilities, team qualities, and communication skills. The reading of technical materials is required. (SCANS 3,5,6,8,9,11) Lab fee required. Prerequisite: None.

AUTO 2377 Cooperative Work Experience
(1-20) .....3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. The reading of technical materials is required. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

AUTO 2501 Automotive Electrical Systems
(4-4) .....5 hours
Presents elementary to most advanced electrical systems. Emphasizes testing and diagnostic procedures. the student will use manuals and computer test equipment to test and diagnose electrical problems. The student will know the relation of Ohms Law as it applies to the automotive electrical system. The student will gain experience working as a team member on lab projects and develop communication skills for customer relations. The reading of technical materials is required. (SCANS 3,5,6,7,8,9) Lab fee required. Prerequisite: None.

AUTO 2502 Heating and Air Conditioning
(4-4) .....5 hours
The student will study the basic principles of climate control as related to the automobile. Topics such as heat, pressure, refrigerants, compressors, electrical control circuits, and other topics will be covered. Interpreting manifold gauges and calculating correct additions of oil and refrigerant gases will give the student a good foundation in the air conditioning service business. The reading of technical materials is required. (SCANS 3,6,7) Lab fee required. Prerequisite: None.

AUTO 2503 Automotive Fuel and Emissions
(4-4) .....5 hours
Emphasizes fuels and emissions related to tune-up procedures. The student will use computerized test equipment to evaluate emissions from exhaust systems. The student will recognize problems and devise plans for correction. Working in teams on lab exercises and using technical manuals the students will acquire new knowledge and skills. The reading of technical materials is required. (SCANS 5,6,7,8,9) Lab fee required. Prerequisite: None.

AUTO 2504 Automotive/Diesel Electronics I
(4-4) .....5 hours
Students will study Ohms Law, power law, principles of direct current, principles of alternating current, induction, capacitance, impedance, and other related electrical principles. The lab exercises will improve reasoning and decision making abilities. A scientific calculator is required. The reading of technical materials is required. (SCANS 3,6,7,8,9,10) Lab fee required. Prerequisite: Fundamental knowledge of mathematics required. College Algebra or more advanced preferred or consent of the department chair.

AUTO 2505 Automotive/Diesel Electronics II
(4-4) .....5 hours
Introduces fundamentals of solid state devices such as FET, bipolar and unijunction transistors. the student will better understand LED's solid state regulators, electronic spark control timing, amplifiers, buffers, SCRs, RAMS, PROMS, and EPROMS. The automotive computer technologies will also be introduced. Students in lab exercises, working in teams, will develop thinking and reasoning abilities useful in diagnosing automotive electronic problems. The reading of technical materials is required. (SCANS 5,6,7,8,9) Lab fee required. Prerequisite: AT 2504 or department chair consent.

Diesel Courses

DESL 1501 Principles of Diesel Engines
(4-4) .....5 hours
Students will learn principles and nomenclatures of gasoline and diesel engines. Reading and interpretation of service manuals and decisions regarding service and repair will be required. Students will use current technologies to diagnose and repair various gasoline and diesel engines. The reading of technical materials is required. (SCANS 6,8,9,11) Lab fee required. Prerequisite: None.

DESL 1503 Electrical Systems and Control Circuits
(4-4) .....5 hours
Students will learn the basic principles of electricity. Reading and interpretation of schematic diagrams, multimeters, and correct terminology will be taught. Current technology will be applied in the diagnoses and repair of various components in the automotive electrical system. (SCANS 1,3,6,8,9,11) Lab fee required. Prerequisite: None.

DESL 1504 Fuel Emissions Systems
(4-4) .....5 hours
Students will learn the purpose, theory, and terminology of modern emission control systems. Reading and interpretation of service manuals and schematic diagrams will be required. Current technologies will be utilized to diagnose, troubleshoot and repair these systems. (SCANS 6,8,9,11) Lab fee required. Prerequisite: None.

DESL 1507 The Diesel Chassis
(4-4) .....5 hours
Students will learn the theory and terminology of modern heavy truck chassis. Reading and interpretation of service manuals and bulletins will be necessary to facilitate the understanding and repair of the chassis and its various components. (SCANS 1,6,8,9) Lab fee required. Prerequisite: None.

DESL 2377 Cooperative Work Experience
(1-20) .....3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

DESL 2501 Transmissions, Power Trains and Accessories
(4-4) .....5 hours
Students will learn the purpose, theory, and terminology of modern automotive heavy truck power train components. Reading and interpretation of service manuals and bulletins will be necessary to facilitate the understanding, diagnoses, and repair of transmissions, differentials, and accessories. (SCANS 1,6,8,9) Lab fee required. Prerequisite: None.

DESL 2503 Caterpillar Diesel Engines
(4-4) .....5 hours
Students will learn the theory of operation, terminology and proper repair procedures through extensive lab and classroom instruction. Reading and interpretation of service manuals and bulletins will be necessary to facilitate understanding, diagnoses, and repair of the Caterpillar diesel engine. (SCANS 1,6,8) Lab fee required. Prerequisite: None.

DESL 2506 Cummins Diesel Engines
(4-4) .....5 hours
Students will learn the theory of operation, terminology and proper repair procedures through extensive lab and classroom instruction. Reading and interpretation of service manuals and bulletins will be necessary to facilitate understanding, diagnoses, and repair of the Cummins diesel engine. (SCANS 1,6,8) Lab fee required. Prerequisite: None.

Bible *(see Philosophy and Religion)*

Biology

Faculty: Dr. Clyde Smith, chair; Dr. Vincent Coffey, James O. Johnson, Dr. John Lesmeister, Steve Sofge.

Courses offered in the Biology Department are directed toward two objectives. First, they provide the student majoring in a biological science with a broad and sound foundation for advanced study at an upper-level institution or a professional school. The second objective provides the non-science major with information and concepts about himself and the living world around him to help him become a well-rounded citizen.

Courses of Study for Associate in Science Degree

	Semester Hrs
General Education Requirements	**56**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	3
SPCH 1311 Introduction to Speech Communication	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1314 College Algebra or More Advanced	3
MATH 1316 Plane Trigonometry or More Advanced	3
*PHED (Any two one-hour activity courses)	2
CHEM 1311/1111 General Inorganic Chemistry I/ Fundamentals of Chemistry Laboratory I	4
CHEM 1312/1112 General Inorganic Chemistry II/ Fundamentals of Chemistry Laboratory II	4
CHEM 2323/2123 Organic Chemistry I/ Organic Chemistry Lab I	4
CHEM 2325/2125 Organic Chemistry II/ Organic Chemistry Lab II	4
PHYS 1401 College Physics I	4
PHYS 1402 College Physics II	4
Elective (must be outside major area)	**3**
Major Requirements	**11-13**
BIOL 1406 General Biology I	4
BIOL 1407 General Biology II	4
**Biology Electives	3-5
Total Semester Hours	**70-72**

**PHED 1100 should be the first course taken in physical education.*
***Requirements for biology electives may be fulfilled by taking any combination of the following courses: BIOL 2306 General Ecology; BIOL 2370 Marine Ecology; BIOL 2420 Microbiology or BIOL 2428 Comparative Anatomy. Choice of an elective may depend upon students' plans for future study. Students should consult with the biology faculty for information regarding these courses.*

Biology Courses

BIOL 0371 Developmental Science
(3-3) ..... 3 hours
This is a compensatory, non-transferable science course designed to improve basic knowledge of the biological sciences, develop critical thinking skills and learn how to interpret data related to biological concepts. Students learn and use biological terminology and mathematical calculations involved in converting between the English and metric systems of measurement, basic chemical calculations. Students also learn specific information about the basic chemistry of life processes, cells, tissue, organs and systems with emphasis on human biology. Lab fee is required. (SCANS 1,3,6,9) Prerequisite: None

BIOL 1170 Medical Terminology (BIOL 1100)
(1-0) ..... 1 hour
Students planning health science careers learn to understand and interpret medical terminology. Consists of Latin and Greek roots, prefixes and suffixes, as well as proper pronunciation and correct spelling. (SCANS 1) Prerequisite: None.

BIOL 1406 General Biology I (BIOL 1401)
(3-3) ..... 4 hours
This course is a study of the organizational aspects of cells from molecular to organismic levels. Students learn to understand and interpret terms and discover principles covering cell anatomy, cell biochemistry, cellular respiration, photosynthesis, cell reproduction, genetics. A taxonomic survey of the five kingdoms is also covered. In laboratory activities students learn to perform basic mathematic calculations of converting between the metric and English systems of measurement and acquire experimental data and reason to the interpretation of principles underlying the observations including cause and effect relationships. Lab fee is required. (SCANS 1,3,6,9) Prerequisite: None.

BIOL 1407 General Biology II (BIOL 1402)
(3-3) ..... 4 hours
Students continue their understanding and interpretation of biological terms with respect to plant and animal growth, plant and animal tissues and systems, ecology, evolution and behavior. Laboratory investigations include basic mathematic calculations of ecological parameters, acquiring practical experience in the dissection of a mammal with reasoning to the relationships between form and function and make decisions relative to cause and effect relationships. Lab fee required. (SCANS 1,3,6,9) Prerequisite: None.

BIOL 1408 Principles of Biology I (BIOL 1300)
(3-3) ..... 4 hours
Students with majors requiring only one semester of biology learn to understand and interpret biological terms, especially as they apply their own bodies and the environment in which they live. Through laboratory activities that include experimentation and microscopic examination students acquire and evaluate information and formulate relationships between form and function and make decisions relative to cause and effect. (SCANS 3,6,9) Prerequisite: None.

BIOL 2306 General Ecology (BIOL 2301)
(3-0) ..... 3 hours
Students learn and interpret the concepts of plant and animal communities and population. From environmental sampling students acquire, evaluate and interpret the effects of chemicals on the biome. Field trips, group discussions and a written theme are required. (SCANS 1,6,9) Prerequisite: One semester of either biology or geology or consent of the instructor.

BIOL 2370 Marine Ecology (BIOL 2303)
(12-18) [2 weeks] ..... 3 hours
A ten-day field course offered during the Midwinter Session and between the spring semester and the first summer session at Cholla Bay, Puerto Penasco, Sonora, Mexico. Students learn principles and gain practical application in the emphasis field observation, collection and preservation techniques of shore fish, planktonic life forms and marine algae. Students also learn information and interpret principles of systemic life history and ecological parameters. Students desiring transferability of credit for this course to a senior institution should check with the senior institution. A special lab fee is required. (SCANS 1,6,9) Prerequisite: Consent of the instructor.

BIOL 2401 Anatomy & Physiology I (BIOL 1404)
(3-3) ..... 4 hours
This is the first semester of a two-semester course in which anatomy and physiology are integrally presented. Students learn anatomic and physiologic terminology, the principles of the relationships between form and function and basic mathematical calculations converting between the Metric and English systems of measurement. Students also learn specific information about and concepts of basic chemistry, cell structure and chemistry, cell reproduction and tissue structure. The anatomy and physiology of four of the body's eleven systems are also presented. In laboratory investigations students acquire knowledge about bones, muscular function and microscopic examination of tissues. Lab fee is required. Lab fee required. (SCANS 1,3,6,9) Prerequisite: Demonstration of basic competence in biology either by passing a placement exam or credit in one semester of college-level biology or consent of the instructor.

BIOL 2402 Anatomy & Physiology II (BIOL 1405)
(3-3) ..... 4 hours
This course is a continuation of BIOL 2401 and assumes foundation knowledge and skills acquired therein. Students learn specific and conceptual information about the remaining seven systems of the body, cellular metabolism and fluid and electrolytes. Practical knowledge of the information and concepts about the eleven system is further gained and reinforced in the major dissection of the cat. Lab fee required. (SCANS 1,6,9) Prerequisite: BIOL 2401 or consent of the instructor.

BIOL 2404 Human Anatomy & Physiology (BIOL 1403)
(3-3) ..... 4 hours
In this one semester course students learn scientific terminology, specific information and concepts about the anatomy and physiology of the eleven body systems. In laboratory exercises students learn mathematical calculations for conversions between the Metric and English systems of measurement, the anatomy of muscles and bones. Lab fee is required. (SCANS 1,3,6,9) Lab fee required. Prerequisite: Demonstration of basic competency in biology either by passing an exam or credit in one-semester college biology or consent of the instructor.

BIOL 2420 Microbiology (BIOL 2403)
(3-3) ..... 4 hours
Students learn specific information and concepts in the classification, structure, cultivation and ecology of microorganisms. Students learn mathematical calculations of growth parameters and the effectiveness of chemotherapeutic agents. Students learn terminology, specific information and concepts of the relationships between microorganisms and human life. Cause and effect relationships between microbial growth and human disease, interpretation of symptomatic and laboratory information in diagnosis of disease, prevention of disease and treatment of disease are stressed. Lab fee is required. (SCANS 1,3,6,9) Prerequisite: BIOL 2401 and 2402 or BIOL 2404 or consent of the instructor.

BIOL 2428 Comparative Anatomy (BIOL 2401)
(3-4) ..... 4 hours
In this course students learn the terminology, specific information relating to and concepts of comparative anatomies of type chordates. Students learn to interpret the progressive developments of organ and organ systems from information gained in the dissection of representative animals from the Vertebrata. Lab fee required. (SCANS 1,6,9) Prerequisite: BIOL 1406 and BIOL 1407 or consent of the instructor..

Building Trades

Faculty: Tom Wilburn, chair.

The building trades program at Odessa College is designed to train students for entry-level jobs in the building and construction industry. Specific areas of training include on-site experience in carpentry, concrete forming, plumbing, roofing, and exterior and interior finishing. A home is constructed from start to finish. Further instruction includes blueprint reading, study of building codes and specifications, and cabinet making.

Course of Study for Associate in Applied Science Degree
Building Trades

	Semester Hrs
General Education Requirements	**20**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government	3
MATH 1372 Technical College Algebra	3
PSYC 2302 Applied Psychology	3
PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Technical Core	**16**
BLDG 2404 Structural Repair	4
ELEC 2410 National Electrical Code	4
HVAC 1401 Refrigeration Theory	4
MAIN 1402 Plumbing Fundamentals	4
Building Maintenance Specialist Option	**27**
BLDG 1601 Construction Principles I	6
BLDG 1602 Carpentry I	6
BLDG 1603 Construction Principles II	6
BLDG 1604 Carpentry II	6
BLDG 2377 Cooperative Work Experience	3
Total Semester Hours	**66**

Building Maintenance Certificates of Technology

Certificates of Technology are available in the following job-specific fields.
See the program chairman for course requirements and Permian Basin job opportunities.

Basic Carpenter Helper

	Semester Hrs
TMATH 1370 Technical College Mathematics	3
PSYC 2302 Applied Psychology	3
BLDG 1601 Construction Principles I	6
BLDG 1602 Carpentry I	6
BLDG 1604 Carpentry II	6
Total Semester Hours	**24**

Basic Construction Technician

TMATH 1370 Technical College Mathematics	3
PSYC 2302 Applied Psychology	3
ELEC 2410 National Electrical Code	4
MAIN 1402 Plumbing Fundamentals	4
BLDG 1601 Construction Principles I	6
BLDG 1602 Carpentry I	6
BLDG 1604 Carpentry II	6
Total Semester Hours	**32**

Basic Cabinetmaker Technician

TMATH 1370 Technical College Mathematics	3
PSYC 2302 Applied Psychology	3
BLDG 2603 Cabinet Making I	6
BLDG 2607 Cabinet Making II	6
Total Semester Hours	**18**

Advanced Construction Technician

TMTH 1370 Technical College Mathematics	3
PSYC 2302 Applied Psychology	3
ELEC 2410 National Electrical Code	4
MAIN 1402 Plumbing Fundamentals	4
BLDG 1601 Construction Principles I	6
BLDG 1602 Carpentry I	6
BLDG 1603 Construction Principles II	6
BLDG 1604 Carpentry II	6
Total Semester Hours	**38**

Construction Estimator

TMTH 1370 Technical College Mathematics	3
COSC 1301 Introduction to Computer Systems	3
PSYC 2302 Applied Psychology	3
BLDG 1601 Construction Principles I	6
BLDG 1602 Carpentry I	6
BLDG 1603 Construction Principles II	6
BLDG 1604 Carpentry II	6
BLDG 2601 Construction Principles III	6
BLDG 2603 Cabinet Making I	3
Total Semester Hours	**45**

Building Trades Courses

BLDG 1601 Construction Principles I

(2-8) ..... 6 hours

Presents terminology, concepts, and techniques to begin a study in residential construction. Competencies to be addressed include interpreting basic blueprints and specifications, estimating materials, acquiring materials, working as a team member, selecting proper tools for tasks, and how to apply new knowledge and skills to actual construction projects Lab fee required. (SCANS 1,3,4,8,9) Prerequisite: None.

BLDG 1602 Carpentry I

(2-8) ..... 6 hours

A skills learning class. Competencies include learning basic use of hand tools, applying mathematical calculations, proper job and tool safety, reading of blueprints, construction of forms, walls, and ceiling joist, and learning communications skills with co-workers. Lab fee required. (SCANS 1,3,5,8,9,11) Prerequisite: None. Corequisite: BLDG 1601.

BLDG 1603 Construction Principles II

(2-8) ..... 6 hours

A continuation of BLDG 1601. Competencies emphasize roof framing, sheathing, roofing, exterior trim, and interior trim. Continues blueprint and specification understanding, material and time estimation, including a basic study of light commercial construction. Lab fee required. (SCANS 1,3,4,6,8) Prerequisite: BLDG 1601. Corequisite: BLDG 1604.

BLDG 1604 Carpentry II

(2-8) ..... 6 hours

A continuation of BLDG 1602. Competencies include study and use of a framing square, calculating and cutting rafters, installation of roof sheathing, exterior and interior trim. Working as a team member on a project house, adaptability, and politeness are emphasized. Lab fee required. (SCANS 3,5,8,10) Prerequisite: BLDG 1602 or consent of the department chair.

BLDG 2377 Cooperative Work Experience

(1-20) ..... 3 hours

A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

BLDG 2404 Structural Repair

(3-3) ..... 4 hours

Presents principles and applications of building repair. Competencies emphasize minor and major wall, floor ceiling, window and roof repair. Repair manuals and text study, proposal writing, job cost estimation, negotiating with subcontractors, organizing and scheduling work, and construction trouble shooting are covered. (SCANS 1,2,3,4,9,10) Lab fee required. Prerequisite: None.

BLDG 2601 Construction Principles III

(2-8) ..... 6 hours

Designed for the advanced student. The class will offer a brief review of the first year study in blueprint reading, proposal writing and a comprehensive study of time and material estimation. Second year students are required to work with first year students, monitoring, correcting performance, teaching new skills, exercising leadership skills and demonstrating self-management skills. Lab fee required. (SCANS 1,2,3,5,6,) Prerequisites: BLDG 1603, BLDG 1604 or consent of department chair.

BLDG 2603 Cabinet Making I
(2-8) ..... 6 hours
Includes principles of cabinet construction. Competencies include plan making, estimating, layout, wood selection, joints, machine practices, techniques and safety, door and drawer construction, sanding, and finishing. Lab fee required. (SCANS 1,2,4,8,9) Prerequisite: None.

BLDG 2607 Cabinet Making II
(2-8) ..... 6 hours
A continuation of BLDG 2603. Competencies include kitchen design and planning, material estimation, advanced machine operation and door and drawer construction. Emphasizes basic skills learning, laminate laying, and customer and co-workers' relations. Lab fee required. (SCANS 4,5,8,10) Prerequisite: BLDG 2603.

Broadcasting *(See Mass Communication)*

Business Administration

Faculty: Dr. Sue Blair, chair; Larry Duval, Jack Felts, Dan Neagle.

Business administration is a broad field of study and contains many possible majors. Courses offered include those required by senior colleges at the freshman and sophomore levels to obtain the degree of Bachelor of Science of Business Administration or a Bachelor of Business Administration (B.B.A.) in a specific undergraduate study, such as accounting. A business major should be aware of the opportunities, requirements and obligations in various majors of specialization so that a proper choice for study can be made. Students should reserve the decision of choosing an area of emphasis depending on their own abilities and interests. Suggested fields of study include accounting, advertising, banking, finance, business, teaching, various phases of management, insurance, retailing, marketing and statistical analysis.

The department also offers courses that may be directly applicable to those who already are employed but wish to upgrade their job skills or to meet certification requirements for their particular vocation.

Course of Study for Associate in Arts Degree

Business Administration

	Semester Hrs
General Education Requirements	**37**
ECON 2301 Principles of Economics I (Micro) or ECON 2302 Principles of Economics II (Macro)	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S History to 1877	3
HIST 1302 U.S. History from 1877	3
*PHED (Any two one-hour activity courses)	2
Science (Two sequential semesters of a lab science in Biology, Chemistry, Geology or Physics)	8
SPCH 1315 Public Speaking; or SPCH 1321 Business and Professional Speech	3
Elective (must be outside major area)	**3**

Major Requirements **14**
- BUSI 1301 Introduction to Business 3
- +BUSI 2301 Business Law I 3
- ACCT 2401 Principles of Accounting I 4
- ACCT 2402 Principles of Accounting II 4

Related Requirements **14**
- COSC 1301 Introduction to Computer Systems or
  BCIS 1401 Intro to Computer Information Systems or
  A more advanced BCIS course 4
- MATH 1324 Mathematical Analysis for Business I 3
- MATH 1325 Mathematical Analysis for Business II 3
- MATH 1442 Business Statistics 4

Total Semester Hours **68**

**PHED 1100 should be the first course taken in physical education.*

+May not be accepted by all four-year or upper-level institutions because of the level at which those institutions offer the course. The student and the department advisor may then agree on a substitution.

Business Administration core curriculum leading to degrees in Accounting, Finance, Personnel, Management, Marketing, etc.

Core courses leading to the degrees listed above from four-year institutions are the same as those listed for the Associate in Arts Degree (Business Administration) at Odessa College. The courses listed for the Associate in Arts Degree from Odessa College are transferable between Texas institutions of higher education, except as noted for BUSI 2301, Business Law I. SOCI 1301, Principles of Sociology and PSYC 2301, Introduction to Psychology are also core courses for business administration and may be selected electives in the Associate in Arts Degree plan.

Business Administration Courses

BUSI 1301 Introduction to Business (BA 1301)
(3-0) ..... 3 hours
Presents an overview of various components of business and industry. Emphasizes integration of text material with current and local business operations and decision-making processes. Learning activities include background reading and applications from text materials, current events, class discussions, written reports, guest speakers, and occasional work-site visits. Also aids students in career planning by emphasizing aptitudes and skills expected in various fields of business specializations. (SCANS 6,7,10,11) Prerequisite: None.

BUSI 2301 Business Law I (BA 2311)
(3-0) ..... 3 hours
Provides information about the legal system and its impact on business operations and decisions. Learning activities provide students opportunities to acquire factual information about designated topics as well as to apply and relate that knowledge to simulated and current business situations. Topics covered include the legal environment of business; the nature and source of legal systems; law of contracts; government regulation of business; and property. Ethical perspectives are integrated throughout the course. (SCANS 6,7,9,11) Prerequisite: ENGL 1301 or equivalent.

BUSI 2302 Business Law II (BA 2312)
(3-0) ..... 3 hours
A continuation of BUSI 2301. Learning activities provide opportunities for students to acquire factual information about specific areas of law as well as opportunities for students to apply and relate that knowledge to simulated and current business situations. Topics covered include legal principles of sales; commercial paper; agency; secured transactions; bankruptcy; and business organization. Ethical perspectives are integrated throughout the course. (SCANS 6,7,9,11) Prerequisite: ENGL 1301 or equivalent.

BUSI 2399 Spreadsheet Applications for Decision Making
(2-3) ..... 3 hours
Use of microcomputer spreadsheet software as a tool for analysis and decision making is introduced. Learning activities and materials provide opportunities for students to apply principles of accounting using both spreadsheets and related graphics. Applications include both pre-programmed problem solving and model-building problems for more complex cases. Lotus 1-2-3 is the primary spreadsheet utilized, but similarities to other spreadsheet programs (Quattro Pro, Microsoft Excel, etc.) are included. Specific applications incorporate budgeting, financial planning, preparation of financial statements, reports, graphs, depreciation schedules, inventory control, statistical analysis, tax planning, and performance of "what-if" analysis. (SCANS 2,3,4,6,8,9) Prerequisites: ACCT 1370 or ACCT 2401

Accounting Courses

ACCT 1370 Introduction to College Accounting (BA 1304)
(3-0) ..... 3 hours
For business and non-business majors. Designed for students with no course background or experience in bookkeeping or accounting. Introduces basic theory of double-entry accounting for sole proprietorships. Uses both manual and technological means to emphasize the complete accounting cycle, including accrual and deferral adjustments. Other topics include financial statement preparation, accounting for cash, merchandising, payroll, receivables, and payables. Practice set may be required. (SCANS 3,4,6,8,9) Prerequisite: Math competency based on TASP.

ACCT 2401 Principles of Accounting I (BA 2401)
(3-3) ..... 4 hours
Introduces terminology, concepts and procedures used in financial accounting for sole proprietorships. The accounting cycle, including activities requiring students to analyze, record, and summarize data involved in preparation of financial statements, is covered. Other activities build on the accounting cycle as other topics—internal control, cash, payroll, receivables, payables, inventories, long-term assets, and financial reporting issues—are studied. Learning activities are designed to allow students to apply acquired knowledge to lab exercises and problems. Manual and computer applications allow students to integrate factual learning into problem-solving situations. (SCANS 1,3,4,6,8,9) Prerequisite: Passed TASP English, reading and mathematics.

ACCT 2402 Principles of Accounting II (BA 2402)
(3-3) ..... 4 hours
Presents application of financial accounting concepts and principles for partnerships and corporations. Managerial and cost accounting topics are introduced: cost behavior, budgeting, responsibility accounting, cost systems and product costing, CVP, standard costs, variance analysis and incremental analysis. Learning activities are designed to allow students to apply acquired knowledge to lab exercises and problem-solving situations. Manual and computer applications allow students to integrate learned techniques and practices into problem-solving situations. (SCANS 1,3,4,6,8,9) Prerequisite: ACCT 2401

Chemistry

Faculty: Dr. E. Don Taylor, chair; Dr. Jeanne Russell.

The objectives of the Chemistry Department are to prepare pre-professional chemists, chemical engineers, and chemical education majors, and to give an effective background in chemistry for work in biology, physics, home economics, agriculture, pre-medicine, and elementary education. A co-objective is to prepare students for careers in chemical technology, where emphasis is placed on applied chemistry for modern laboratory instrumentation.

The chemistry curriculum is intended to be general enough to fulfill these objectives for the major or the non-major's requirements for the first two years of college chemistry. Students are responsible for checking the catalog of the senior college to which they plan to transfer to determine which courses are compatible with the senior college degree program.

Course of Study for Associate in Science Degree

Chemistry

	Semester Hrs
General Education Requirements	**40**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	3
SPCH 1311 Introduction to Speech Communication	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1348 Analytic Geometry	3
MATH 2313 Calculus I	3
*PHED (Any two one-hour activity courses)	2
**PHYS 2425 Engineering Physics I	4
**PHYS 2426 Engineering Physics II	4
Elective (must be outside the major area)	**3**
Major Requirements	**18**
CHEM 1311/1111 General Inorganic Chemistry I/Fundamentals of Chemistry Lab I	4
CHEM 1312/1112 General Inorganic Chemistry II/Fundamentals of Chemistry Lab II	4
CHEM 2271 Organic Nomenclature	2
CHEM 2323/2123 Organic Chemistry I/Organic Chemistry Lab I	4
CHEM 2325/2125 Organic Chemistry II/Organic Chemistry Lab II	4
***Approved Electives	3-4
Total Semester Hours	**64-65**

**PHED 1100 should be the first course taken in physical education.*

***PHYS 1401 and PHYS 1402 satisfy the Odessa College requirement for an associate's degree for premedical students, but only PHYS 2425 and PHYS 2426 will transfer to satisfy a science requirement.*

****Approved Electives: CHEM 1207, CHEM 2301, and CHEM 2101; FREN 1411 and FREN 1412; GERM 1411 and GERM 1412; MATH 2314.*

Chemistry Courses

CHEM 1105 Introductory Chemistry Laboratory (CHEM 1105)
(0-3) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 1305 by use of quantitative experiments. Emphasizes interpreting and reporting of data. Stresses facility in handling scientific equipment. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or prerequisite: CHEM 1305.

CHEM 1111 Fundamentals of Chemistry Laboratory I (CHEM 1101)
(0-3) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 1311 by use of quantitative experiments. Emphasizes interpreting and reporting of data. Stresses facility in handling scientific equipment. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or prerequisite: CHEM 1311.

CHEM 1112 Fundamentals of Chemistry Laboratory II (CHEM 1102)
(0-3) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 1312 by use of qualitative and quantitative experiments. Emphasizes interpreting and reporting of data. Stresses facility in handling scientific equipment. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or prerequisite: CHEM 1312.

CHEM 1207 Chemical Calculations (CHEM 1201)
(2-0) ..... 2 hours
A lecture course that emphasizes the problem solving techniques that are used in CHEM 1312. Involves reading problems and using critical thinking skills and mathematics to organize the information and arrive at an answer. Can be used to fulfill the 10 hour freshman chemistry course or chemical engineering calculations course taught at some senior colleges.(SCANS 1,3,6,9) Prerequisite: CHEM 1311.

CHEM 1305 Introductory Chemistry (CHEM 1305)
(3-0) ..... 3 hours
A lecture course in elementary chemistry. Primarily for non-majors or people desiring a one-semester introductory chemistry course. Includes terminology, nomenclature, stoichiometry, states of matter, solutions, equilibria, etc. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,3,6,9) Prerequisite: Passed all sections of the TASP exam. An understanding of basic mathematics, including simple algebra. (Credit probably not transferable until CHEM 1105 successfully completed.)

CHEM 1311 General Inorganic Chemistry I (CHEM 1301)
(3-0) ..... 3 hours
A lecture course designed as a first college-transfer course for students with some background in physical science. Covers such topics as chemical stoichiometry, atomic structure, bonding, formulas, equations, gas laws, solutions, etc. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,3,6,9) Prerequisite: Passed all sections of the TASP exam and be eligible to take College Algebra. (Credit probably not transferable until CHEM 1111 is successfully completed.

CHEM 1312 General Inorganic Chemistry II (CHEM 1302)
(3-0) ..... 3 hours
A lecture course that is a continuation of CHEM 1311. Includes solutions, chemical kinetics, acids and bases, equilibrium, electrochemistry, thermodynamics, coordination chemistry, nuclear chemistry, organic chemistry, etc. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,3,6,9) Prerequisite: Math 1314 and a minimum grade of "C" in CHEM 1311. (Credit probably not transferable until CHEM 1112 is successfully completed.)

CHEM 2101 Analytical Chemistry Laboratory I (CHEM 2103)
(0-4) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 2301. The course uses techniques and quantitative experiments common to analytical chemistry. Techniques include classical gravimetric and volumetric techniques, also modern instrumental techniques as electrochemical, UV/visible and AA spectroscopy, and gas chromatography. the course also requires an individual laboratory project with a formal written report over the project. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or Prerequisite: CHEM 2301.

CHEM 2123 Organic Chemistry Laboratory I (CHEM 2101)
(0-4) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 2323. The course is designed to concentrate on the techniques of preparing organic compounds, separation, purification, and identifying the prepared compound. Some of the techniques include melting points, recrystallization, extraction, distillation, and interpretation of IR, NMR, and chromatography spectra. A project will be done that includes using the library and writing a research paper. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or Prerequisite: CHEM 2323.

CHEM 2125 Organic Chemistry Laboratory II (CHEM 2102)
(0-4) ..... 1 hour
A laboratory course that illustrates and reinforces principles and concepts of CHEM 2325. The course includes organic synthesis, isolation of product, and identification of product using the techniques from CHEM 2123 and CHEM 2323. Each synthesis requires the acquisition of instrumental spectra, interpretation of the spectra, and qualitative analysis of the product. The course also requires an individual laboratory project with a formal written report over the project. Lab fee required. (SCANS 1,3,6,8,9) Corequisite or Prerequisite: CHEM 2325.

CHEM 2271 Organic Nomenclature (CHEM 2201)
(2-0) ..... 2 hours
A lecture course that presents a systematic study of rules of nomenclature for organic compounds by functional group. The course emphasizes International Union of Pure and Applied Chemistry rules but also includes some common names and structural determinations. Students should check with the senior college to determine transferability of this course. (SCANS 1,6,9) Corequisite: CHEM 2323 or consent of the instructor.

CHEM 2301 Analytical Chemistry (CHEM 2303)
(3-0) ..... 3 hours
A lecture course that is a study of fundamental principles of elementary quantitative analysis, both theoretical and practical. Includes equilibrium, gravimetric analysis, volumetric analysis and introduction to instruments (AA, GC, UV, spectroscopy, pH meters, IR and NMR). The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,3,6,9) Prerequisite or Corequisite: CHEM 1312. (Credit probably not transferable until CHEM 2101 is successfully completed.)

CHEM 2323 Organic Chemistry I (CHEM 2301)
(3-0) .....3 hours
A lecture course that presents a mechanistic approach to an integrated study of aliphatic, alicyclic and aromatic hydrocarbons. Includes an introduction to instrumental methods applicable to organic chemistry. The student will be involved in reading information or problems and using critical thinking skills to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,6,9) Prerequisite: A minimum grade of "C" in CHEM 1312. Corequisite: CHEM 2271 or consent of the instructor. (Credit probably not transferable until CHEM 2123 is successfully completed.)

CHEM 2325 Organic Chemistry II (CHEM 2302)
(3-0) .....3 hours
A lecture course that is a continuation of CHEM 2323 which is an integrated study of organic compounds by functional groups. Includes an introduction to biochemistry. The student will be involved in reading information or problems and using critical thinking skills to organize the information to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1,3,6,9) Prerequisite: A minimum grade of "C" in CHEM 2323. Corequisite: CHEM 2125 (Credit probably not transferable until CHEM 2125 is successfully completed.)

Child Development

Faculty: Maryln Hair, chair; Mary Joyce Harding.

The field of child development is a rapidly growing area with a wide range of employment possibilities. An increasing number of job opportunities are available in the community for those who work with children. Public and private schools, federal agencies, day care centers, industry and community agencies need professionally-trained people who understand children and who can give them love, guidance and leadership.

The associate's degree program in child development will provide an opportunity for an in-depth study of the whole child. In the certificate program, the specialization is in child development or child care management. In all programs, the child development lab courses will include an actual experience with the children. Students enrolled in child development lab classes must meet Texas Department of Regulatory and Protective Services staff requirements for day-care centers.

Student liability insurance is required for all child development lab classes.

See your high school counselor or the Odessa College Chairperson for information on Tech-Prep options.

Course of Study for Associate in Applied Science Degree

Child Development

	Semester Hrs
General Education Requirements	**17-18**
ENGL 1301 Composition and Rhetoric	3
MATH 1332 Structures of College Mathematics I or higher level math	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
COSC 1301 Introduction to Computer Systems	3
SPCH 1321 Business and Professional Speech	3
*PHED (Any two one-hour activity courses) or PHED 1331 Movement and Recreation	2-3

	Semester Hrs
Elective (must be outside the major area)	3
Major Requirements	37
CHLD 1302 Introduction to Child Development	3
CHLD 1304 The Abused and Neglected Child	3
CHLD 1305 Creative Activities for Children	3
CHLD 1307 Discipline and Classroom Management	3
CHLD 1308 Child Growth and Development of Infants and Toddlers	3
CHLD 1311 Child Health Care and Nutrition	3
CHLD 2301 Personal and Family Management	3
CHLD 2304 The Special Child	3
CHLD 2305 Children's Language and Literature Development	3
CHLD 2306 Science and Math Activities for Children	3
CHLD 2377 Cooperative Work Experience	3
CHLD 2403 Planning and Teaching Methods in Early Childhood	4
Related Requirements	9
PHED 1306 First Aid	3
PSYC 2308 Child Psychology	3
Approved Elective	3
Total Semester Hours	66-67

**PHED 1100 should be the first course taken in physical education.*

***Approved electives: [redacted]; CHLD 1310, CHLD 2111, CHLD 2115, CHLD 2120, CHLD 2125, CHLD 2130, CHLD 2135, CHLD 2140, CHLD 2145, [redacted]*

Certificates of Technology are available in the following fields.
See the program chairman for course requirements and Permian Basin job opportunities.

Certificate of ~~Technology~~ Completion in Child Development

General Education Requirements	12
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
TMTH 1370 Technical College Mathematics or MATH 1332 Structures of College Mathematics I or higher level math	3
PHED 1306 First Aid	3
PSYC 2308 Child Psychology	3
Major Requirements	24
CHLD 1302 Introduction to Child Development	3
CHLD 1304 The Abused and Neglected Child	3
CHLD 1305 Creative Activities for Children	3
CHLD 1307 Discipline and Classroom Management	3
CHLD 1308 Child Growth and Development of Infants and Toddlers	3
CHLD 1311 Child Health Care and Nutrition	3
CHLD 2301 Personal and Family Management	3
CHLD 2305 Children's Language and Literature Development	3
Total Semester Hours	36

Completion

Certificate of [redacted] in Child Care Management

	Semester Hrs
General Education Requirements	**12**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
TMTH 1370 Technical College Mathematics or MATH 1332 Structures of College Mathematics I or higher level math	3
COSC 1301 Introduction to Computer Systems	3
SPCH 1321 Business and Professional Speech	3
Major Requirements	**24**
CHLD 1302 Introduction to Child Development	3
CHLD 1304 The Abused and Neglected Child	3
CHLD 1305 Creative Activities for Children or CHLD 2305 Children's Language and Literature Development or CHLD 2306 Science and Math Activities for Children	3
CHLD 1307 Discipline and Classroom Management	3
CHLD 1311 Child Health Care and Nutrition	3
CHLD 2111 Legal Aspects and Minimum Standards	1
CHLD 2115 Managing Day Care Dollars	1
CHLD 2135 Program Planning and Evaluation	1
MGMT 1301 Introduction to Management	3
MGMT 2304 Personnel and Human Relations or MGMT 2330 Entrepreneurial Issues	3
Related Requirements	**6**
PHED 1306 First Aid	3
PSYC 2308 Child Psychology	3
Total Semester Hours	**42**

Child Development Courses

CHLD 1302 Introduction to Child Development
(2-3) ..... 3 hours
Introduces the profession of teaching children. Overviews the responsibilities and relationship of the staff, the types of child care programs, good environment for children, safety, health, first aid, child abuse, and nutrition with emphasis on interpreting the Texas licensing standards. Presents the development theorists, the four areas of development, the ages and stages of development as well as how to choose and implement appropriate activities. Introduces interviewing and resume writing skills needed for securing a child care career. Lab assignments are designed to allow students to use their reasoning ability to solve problems, make decisions, and interpret observational forms. (SCANS 1,4,9) Lab fee required. Prerequisite: None.

CHLD 1304 The Abused and Neglected Child
(3-0) ..... 3 hours
Designed to educate individuals in all aspects of child maltreatment including procedures for observations, documentation and interpretation of policies. Utilizes outside resource persons, as well as films, lectures, etc. Includes classroom activities to encourage problem solving and decision making techniques for situational problems. Reviews current federal, state and local child abuse laws, including Texas licensing standards. (SCANS 1,6,9,10) Prerequisite: None.

CHLD 1305 Creative Activities for Children
(2-3) .....3 hours
Emphasizes the creative process as a basis for problem-solving. Creative activities will be planned and presented for all activity areas, including art, movement, music, language, science, mathematics, social studies, in addition to holiday and seasonal activities for young children. Emphasis is placed on appropriate use of all resources, including time, materials, and facilities, as they apply to creative thinking. (SCANS 4,6,9) Lab fee required. Prerequisite: None.

CHLD 1307 Discipline and Classroom Management
(2-3) .....3 hours
Provides opportunity to evaluate and understand individuals' expectations regarding discipline and classroom management with emphasis on Texas licensing standards. Students will have the opportunity to evaluate situations based on good problem solving and decision making techniques and implementation of alternative discipline strategies. Emphasizes techniques of communication with children as well as co-workers. Offers opportunity to learn theories of behavior-shaping. Presents major theorists and theories of individual and group management. (SCANS 5,6,7,9,11) Lab fee required. Prerequisite: None.

CHLD 1308 Child Growth and Development of Infants and Toddlers
(3-2) .....3 hours
Emphasizes development processes and environmental factors that can affect physical growth, shape personality and achievement from conception to three years of age. Presents skills for group or individual care of infants or toddlers such as individual daily schedules, record keeping, food preparation, age appropriate discipline techniques and activities. Also, includes interpreting the Texas licensing standards for infants and toddlers. (SCANS 1,6,9) Lab fee required. Prerequisite: None.

CHLD 1310 Child Growth and Development from School Age Through Adolescence
(3-0) .....3 hours
Focuses on social, emotional, mental and physical development processes. Emphasizes interpreting Texas licensing standards, problem solving techniques, and personal qualities as related to guiding children, ages six to 18 years old. Designed particularly for anyone working with individuals or with groups from school age through adolescence. (SCANS 1,9,10) Prerequisite: None.

CHLD 1311 Child Health Care and Nutrition
(2-3) .....3 hours
Emphasizes appropriate health, safety and nutrition practices in children's programs as well as interpreting Texas licensing standards. Stresses effect of nutrition on growth and development. Requires assignments which train the student to utilize forms, procedures, and perform calculations required by the USDA Child Care Food Program and the Texas licensing standards for food service. Also, requires choosing, planning and implementing food, health, and safety activities with children. (SCANS 1,3) Lab fee required. Prerequisite: None.

CHLD 2111 Legal Aspects and Minimum Standards
(1-0) .....1 hour
Interprets local, state, and federal regulations. By becoming familiar with Texas state licensing standards and funding agency regulations which concern an employer in the child care program, the student will be able to locate, revise, and interpret documents, such as manuals, charts, and schedules. Emphasis is placed on making decisions concerning legal issues such as insurance liabilities, contracts with individuals and with companies for services, and on litigations. This is accomplished through the use of speakers, and by students investigating or researching topics and making reports. (SCANS 1,6,9) Prerequisite: None.

CHLD 2115 Managing Day Care Dollars
(1-0) ..... 1 hour
Presents basic concepts and strategies helpful to the director of a child care program regarding responsibilities in budgeting, record keeping, controlling costs, and ensuring a stable income. This course is designed to allow students to develop budgets, read and interpret graphs and charts, use their reasoning abilities to solve problems and make decisions related to the financial system. (SCANS 1,3,4,7,9). Prerequisite: None.

CHLD 2120 Communication and Discipline in the Child Care Program
(1-0) ..... 1 hour
Emphasizes the importance of open communication and positive relationships between the staff members and the parents. Also, concentrates on choosing strategies and techniques which can be used in guiding child behavior. (SCANS 5,9,11) Prerequisite: None.

CHLD 2125 Food and Meal Management for Child Care
(1-0) ..... 1 hour
Presents interpretation of local, state, and federal regulations regarding planning and servicing nutritious meals to the children, with sanitation and cost factors being considered. Emphasizes planning a cycle menu, evaluating nutrient content, and calculating food costs as well as listing required kitchen equipment, and outlining systems of sanitation, safety, and purchasing for food service. Also, stresses serving meals to children in order to make mealtime fun and organized. (SCANS 2,3,7) Prerequisite: None.

CHLD 2130 Staff Management
(1-0) ..... 1 hour
Presents organizational skills, such as developing and communicating, job descriptions, job qualifications, employee policies, and staff work schedules. Develops skills in hiring and dismissing employees. Staff maintenance will be covered, including staff meetings, employee records, self-analysis and improvement. Emphasizes staff training strategies, such as educational activities, planning workshops, use of consultants, and resource libraries. (SCANS 4,5,6,7,10,11) Prerequisite: None.

CHLD 2135 Program Planning and Evaluation
(1-0) ..... 1 hour
Presents facility development through interpreting local, state, and federal regulations, formulating guidelines, analyzing physical space, evaluating designs that accommodate children. Includes analyzing types of child care programs, outlining procedures for developing program plans, developing a philosophy of caregiving, summarizing state standards, analyzing group patterns, developing a comprehensive curriculum, and involving staff, parents and board members in planning a child care program. Emphasizes director/staff relationship and selection of supplies and equipment for implementing a child care program. A variety of procedures for on-going and periodic evaluation of a child care program will be presented. (SCANS 2,4,5,9) Prerequisite: None.

CHLD 2140 Leadership and Professionalism in Child Care Management
(1-0) ..... 1 hour
Presents the functions of management, such as the ability to plan, to make decisions, to organize, to evaluate, to communicate, and to manage time. Also, emphasizes characteristics of effective leadership styles, the impact of good work habits on leadership ability, the importance of a professional demeanor and appearance, and the role of the child care administrator in relation to a board of directors. (SCANS 4,5,7,9,10,11) Prerequisite: None.

CHLD 2145 Public Relations for Child Care
(1-0) ..... 1 hour
Presents ways that the child care staff can establish open communication with the parents and involve the parents in the child care program, such as a parent handbook, parent meetings, parent newsletter or bulletin boards, and parent volunteers. Also, emphasizes how to analyze multicultural influences in the market area, develop marketing and advertising strategies, create a program brochure, establish guidelines for recruiting and utilizing community volunteers. Also, identify community services and agencies, which are advocates of children and families. (SCANS 2,5,7,10,11) Prerequisite: None.

CHLD 2301 Personal and Family Management
(3-0) ..... 3 hours
Presents development and relationships between individual family members, including various decision making and problem solving techniques. Includes changing role of men and women in society and discusses stages of family cycle. Introduces management techniques applicable to the individual and the family, including time management, money management, and related topics. (SCANS 5,6,10,11) Prerequisite: None.

CHLD 2304 The Special Child
(2-3) ..... 3 hours
Presents techniques to identify and serve children with special needs. Includes studies of physical, emotional, language and/or mental disabilities. Also, presents needs of gifted and talented children. Emphasizes constructing environment to enable children with special needs to function to their maximum abilities within the group structure. Stresses ways of working with parents of special children to bring out maximum home-center coordination. (SCANS 5,6,10,11) Lab fee required. Prerequisite: None.

CHLD 2305 Children's Language and Literature Development
(2-3) ..... 3 hours
Introduces techniques for development of age appropriate language experiences in listening, speaking, reading, and writing readiness. Includes criteria for selecting and using children's literature in a school environment. Introduces methods of story telling with and without audiovisual aids such as puppets, flannel graphs and story rolls and use of media equipment such as TV/VCRs, laminators, paper copiers, and glue guns. Includes introduction to bilingual language development. (SCANS 1,2,8,11) Lab fee required. Prerequisite: None.

CHLD 2306 Science and Math Activities for Children
(2-3) ..... 3 hours
Applies scientific approach of problem solving and creative thinking to a child's world. Includes how to make or select inexpensive, simple science and/or math materials. Emphasizes how to write and present age appropriate science and/or math activities on subjects such as animals, plants, electricity, the five senses, measurements, shapes, sizes, numbers symbols, etc. Also, includes criteria for arranging a science/ discovery learning area in a classroom. (SCANS 1,3,4,9) Lab fee required. Prerequisite: None.

CHLD 2377 Cooperative Work Experience
(2-10) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences in a child care facility or early childhood educational programs. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: 21 hours of child development courses including CHLD 1302, CHLD 1307, CHLD 1308, CHLD 2403, and PSYC 2308 as well as consent of the department chair. Requires a grade of "C" or better for credit to be validated.

CHLD 2403 Planning and Teaching Methods in Early Childhood
(2-4) ..... 4 hours
Emphasizes planning and teaching curriculum for children birth to five years of age. Includes assessing children's developmental level by use of written observation techniques and planning and implementation of developmentally appropriate curricula which includes selecting appropriate equipment such as computer programs and videos. Also, presents techniques for parent involvement and interpersonal communication, creation of appropriate physical environments, and classroom management. (SCANS 5,7,9,10) Lab fee required. Prerequisite: CHLD 1302, CHLD 1307 and a minimum of two of the following courses: CHLD 1305, CHLD 1311, CHLD 2305, CHLD 2306 or consent of the department chair.

Clinical Laboratory Sciences

Faculty: Joel Smith, chair; Annette McMinn, education coordinator; Eloisa Corbell, paraprofessional; Dr. Kris Challapalli, medical advisor.

Medical Laboratory Technology

Medical laboratory technology is a special two-year program of combined academic and clinical training which prepares students with entry skills in medical laboratory techniques, completes prerequisites for certification by examination in the category of medical laboratory technician and leads to an Associate of Applied Science Degree. The Odessa College MLT program is CAHEA accredited. Laboratory practicums are under the full-time supervision of a qualified education coordinator at affiliated clinical laboratories, and the entire program is supervised by a pathologist certified by the American Society of Clinical Pathologists and the College of American Pathologists.

Because practicum space is limited, students will be admitted on a selected basis. To be admitted to the program, students must be a high school graduate or equivalent, must achieve a satisfactory score on selected college entrance examinations and must show evidence of good physical and mental health. Applicants must submit their applications and fulfill admission requirements no later than two weeks prior to the start of the second summer term.

Students must maintain an average grade of "C" or better for all courses taken and attain no grade lower than "C" in any medical laboratory technology course to continue the program.

Students seeking additional information should contact the chair, Clinical Laboratory Sciences Department. Applications for the medical laboratory technology associate's degree program may be obtained from the counseling center.

Student liability **and health insurance** are required for all laboratories and clinical practicums.

Course of Study for Associate in Applied Science Degree

Clinical Laboratory Science

First Year

Summer Session II

	Semester Hrs
CLSC 1304 Urinalysis and Body Fluids	3
MATH 1332 Structures of College Mathematics I or higher level math	3

Fall Semester

	Semester Hrs
CHEM 1305 Introductory Chemistry	3
CHEM 1105 Introductory Chemistry Laboratory	1
ENGL 1301 Composition & Rhetoric	3
CLSC 1211 Urinalysis, Hematology & Hemostasis Lab	2
CLSC 1601 Hematology & Hemostasis	6
PHED 1100 Lifestyle Assessment & Modification	1

Spring Semester

BIOL 1407 General Biology	4
SPCH 1321 Business and Professional Speech	3
CLSC 1212 Immunology & Immunohematology Lab	2
CLSC 1602 Immunology & Immunohematology	6
PHED One-hour activity course	1

Summer Session I

CLSC 1223 Clinical Practicum	2

Second Year

Summer Session II

	Semester Hrs
Elective	3

Fall Semester

CLSC 2211 Clinical Microbiology Laboratory	2
**CLSC 2221 Clinical Practicum	2
CLSC 2601 Clinical Microbiology	6
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3

Spring Semester

CLSC 2212 Clinical Chemistry Laboratory	2
**CLSC 2222 Clinical Practicum	2
CLSC 2602 Clinical Chemistry	6
HIST 1301 United States History to 1877 or HIST 1302 United States History from 1877	3

Summer Session I

CLSC 2223 Clinical Practicum	2

**PHED 1100 should be the first course taken in physical education.*

***CLSC 2424 may be substituted for CLSC 2221 and CLSC 2222.*

9421 **Phlebotomy**

Phlebotomy is a special 10-week program of combined classroom instruction and clinical experience in affiliated medical laboratories which prepares students with career entry skills in phlebotomy, completes requirements for a Certificate of Completion in Phlebotomy and completes prerequisites for certification by examination in the category of phlebotomy technician. The Odessa College Phlebotomy program is approved by the National Accrediting Agency for Clinical Laboratory Sciences. The practicums are under the full-time supervision of a certified Medical Technologist or certified Phlebotomist.

Because practicum space is limited, students will be admitted on a selected basis. To be admitted to the phlebotomy program, students must be a high school graduate or equivalent, must achieve a satisfactory score on selected entrance examinations, and must show evidence of good physical and mental health. Applications must be submitted no later than two weeks prior to the start of the published date for the start of the next class.

Students must attain no grade lower than "C" in any phlebotomy course to complete the course of study. The student must have a grade no lower than "C" in CLSC 1500 to enroll in CLSC 1220.

The phlebotomy program is offered throughout the year as applicants become sufficient for the formation of a class. Classes are tentatively scheduled for the fall, spring and summer terms. Interested parties should contact the clinical laboratory sciences department for projected class offerings. Phlebotomy courses are offered on a credit and non-credit basis.

Students seeking additional information should contact the chair, clinical laboratory sciences department. Applications for the phlebotomy program may be obtained from the counseling center.

Student liability **and health insurance** are required for all laboratories and clinical practicums.

Course Of Study For Certificate of Completion

	Semester Hrs
CLSC 1500 Phlebotomy	5
CLSC 1220 Phlebotomy Practicum	2

Clinical Laboratory Science Courses

CLSC 1211 Urinalysis, Hematology & Hemostasis Lab
(0-8) ..... 2 hours
Illustrates and reinforces content of CLSC 1304 and CLSC 1601. Emphasizes understanding of theories and principles of selected techniques used in urinalysis, hematology and hemostasis for diagnosing and/or monitoring of disease processes. Laboratory exercises are performed following written procedures and require the preparation of graphs and/or mathematical calculations on generated data; interpretation and correlation of results to normal or abnormal physiology; and submission of written or computer generated reports. Laboratory safety is stressed. (SCANS 1,2,3,6,7,8,9). Lab fee and liability insurance required. Prerequisite: CLSC 1304 and consent of the department chair. Corequisite: CLSC 1601.

CLSC 1212 Immunology and Immunohematology Lab
(0-8) ..... 2 hours
Illustrates and reinforces content of CLSC 1602. Emphasizes understanding of theories and principles of selected techniques for diagnosing and/or monitoring of disease processes using antigen–antibody reactions. Laboratory exercises are performed following written procedures and require mathematical calculations on generated data, interpretation and correlation of results to normal or abnormal physiology, and submission of written or computer generated reports. Includes procedures for donor screening, antibody identification, and crossmatching of blood for transfusion. Laboratory safety is stressed. (SCANS 1,2,3,6,7,8,9). Lab fee and liability insurance required. Prerequisite: CLSC 1211 and consent of the department chair. Corequisite: CLSC 1602.

CLSC 1220 Phlebotomy Practicum
0-15) [7 weeks] ..... 2 hours
Consists of a total of 100 hours in an affiliated laboratory performing phlebotomy procedures under the supervision of a certified Phlebotomist or Clinical Laboratory Generalist. Requires interpretation of written orders and correlation with appropriate specimen types and volumes; conveying instructions to patients; maintaining specimen acquisition records; and professional conduct. Fulfills requirements for Certificate of Completion in Phlebotomy and eligibility for certification examination as a Phlebotomy Technician. (SCANS 1,2,6,8,10,11). Liability insurance and proof of health insurance required. Prerequisites: Concurrent enrollment in CLSC 1500 and consent of the department chair.

CLSC 1223 Clinical Practicum
(0-16)[6 weeks] .....2 hours
Consists of 16 hours per week in an assigned department of an affiliated clinical laboratory performing procedures under the supervision of a Medical Technologist and a Pathologist. Requires acquisition of appropriate specimens for requested procedures; operation and maintenance of automated instruments; calculation of report values from generated date; recognition of obtained values as being expected or abnormal; correlation of obtained values with disease or pathology; and preparation of final laboratory reports for manual or computer posting. Specific procedures to be performed are a function of the assigned department(s). (SCANS 1,2,3,4,8). Liability insurance and proof of health insurance are required. Prerequisites: CLSC 1304, CLSC 1601, CLSC 1602, CLSC 1211, CLSC 1212 and consent of the department chair.

CLSC 1304 Urinalysis and Body Fluids
(8-0)[6 weeks] .....3 hours
Introduces fundamentals of Medical Laboratory Technology and professional ethics essential to the clinical laboratory. Emphasizes theory and practical application of urinalysis procedures, calculation of reportable data, their interpretation and correlation to disease processes, and the examination of body fluids by selected laboratory procedures for the diagnosis and monitoring of disease processes. (SCANS 1,3,5,6,7,9). Prerequisite: Admission to the Medical Laboratory Technology Program and consent of the department chair.

CLSC 1500 Phlebotomy
(8-0) [10 weeks] .....5 hours
Introduces fundamentals of Phlebotomy. Emphasizes theories and principles of biological specimen collection. Includes laboratory organization, anticoagulant action, specimen requirements, acquisition and reporting procedures, interpersonal relationships, professional ethics, and procedures to safeguard against the acquisition or spread of pathogenic agents. Completion of course partially fulfills requirements for Certificate of Completion in Phlebotomy and eligibility for certification by examination as a Phlebotomy Technician. (SCANS 1,2,3,5,6,7,9,10,11). Lab fee required. Prerequisite: Admission to phlebotomy program and consent of department chair. Corequisite: CLSC 1220.

CLSC 1601 Hematology and Hemostasis
(6-0) .....6 hours
Consists of study of the formed elements of blood and the cellular, vascular, and plasma components of hemostasis. Emphasizes theory and practical application of hematology and hemostasis/coagulation procedures, their selection and calculation, and their interpretation and correlation to disease processes. (SCANS 1,3,6,7,9,10,11). Prerequisite: CLSC 1304 and consent of the department chair. Corequisite: CLSC 1211.

CLSC 1602 Immunology and Immunohematology
(6-0) .....6 hours
Consists of study of immunology and immunohematology. Emphasizes study of antigen-antibody reactions and their use in serological testing and blood banking procedures. Requires ability to indicate appropriate test procedure to perform; calculation of dilutions and application to the related antigen/antibody; interpretation of laboratory data and correlation to specific disease processes; ability to indicate course of required action in blood donor selection, collection and processing; and the selection of appropriate procedures and interpretation for compatibility testing. (SCANS 1,2,3,4,6,7,8,9,11). Prerequisites: CLSC 1601 and consent of the department chair. Corequisite: CLSC 1212.

CLSC 2211 Clinical Microbiology Lab
(0-8) ..... 2 hours
Illustrates and reinforces content of CLSC 2601. Emphasizes understanding of theories, principles and procedures of selected techniques employed in clinical microbiology for the isolation and identification of microorganisms pathogenic to man. Laboratory exercises are performed following written procedures and require selection, performance and interpretation of stains and biochemical tests appropriate for the identification of a microorganism; compilation and correlation of generated data; and submission of narrative and form reports. Laboratory safety is stressed. (SCANS 1,2,3,4,6,7,8,9,10). Lab fee required. Prerequisite: Consent of department chair. Corequisite: CLSC 2601.

CLSC 2212 Clinical Chemistry Lab
(0-8) ..... 2 hours
Illustrates and reinforces content of CLSC 2602. Emphasizes understanding of theories and principles of selected techniques for diagnosing and/or monitoring of disease processes of a metabolic nature and monitoring of drug therapies. Laboratory exercises are performed following written procedures and require the preparation of reagent solutions; graphs and/or mathematical calculations on generated data; interpretation and correlation of results to normal or abnormal metabolism; determination of appropriate or inappropriate therapeutic drug concentrations; and submission of written or computer generated reports. Lab safety is stressed. (SCANS 1,2,3,6,7,8,9). Lab fee required. Prerequisite: Consent of department chair. Corequisite: CLSC 2602.

CLSC 2221 Clinical Practicum
(0-20) ..... 2 hours
Consists of 20 hours per week in an assigned department of an affiliated clinical laboratory performing procedures under the supervision of a Medical Technologist and a Pathologist. Requires acquisition of appropriate specimens for requested procedures; operation and maintenance of automated instruments; calculation of report values from generated date; recognition of obtained values as being expected or abnormal; correlation of obtained values with disease or pathology; and preparation of final laboratory reports for manual or computer posting. Specific procedures to be performed are a function of the assigned department(s). (SCANS 1,2,3,4,8). Liability insurance and proof of health insurance are required. Prerequisite: CLSC 1223 and consent of department chair. Corequisite: CLSC 2601.

CLSC 2222 Clinical Practicum
(0-20) ..... 2 hours
Consists of 20 hours per week in an assigned department of an affiliated clinical laboratory performing procedures under the supervision of a Medical Technologist and a Pathologist. Requires acquisition of appropriate specimens for requested procedures; operation and maintenance of automated instruments; calculation of report values from generated date; recognition of obtained values as being expected or abnormal; correlation of obtained values with disease or pathology; and preparation of final laboratory reports for manual or computer posting. Specific procedures to be performed are a function of the assigned department(s). (SCANS 1,2,3,4,8). Liability insurance and proof of health insurance are required. Prerequisite: CLSC 2221 and consent of department chair. Corequisite: CLSC 2602.

CLSC 2223 Clinical Practicum
(0-16) [6 weeks] ..... 2 hours
Consists of 16 hours per week in an assigned department of an affiliated clinical laboratory performing procedures under the supervision of a Medical Technologist and a Pathologist. Requires acquisition of appropriate specimens for requested procedures; operation and maintenance of automated instruments; calculation of report values from generated date; recognition of obtained values as being expected or abnormal; correlation of obtained values with disease or pathology; and preparation of final laboratory reports for manual or computer posting. Specific procedures to be performed are a function of the assigned department(s). (SCANS 1,2,3,4,8). Liability insurance and proof of health insurance are required. Prerequisites: CLSC 1304, CLSC 1601, CLSC 1602, CLSC 2601, CLSC 2602, CLSC 1211, CLSC 1212, CLSC 2211, CLSC 2212 and consent of the department chair.

CLSC 2424 Clinical Practicum
(0-36) [18 weeks] ..... 4 hours
Consists of 36 hours per week in assigned departments of affiliated clinical laboratories performing procedures under the supervision of a Medical Technologist and a Pathologist. Requires acquisition of appropriate specimens for requested procedures; operation and maintenance of automated instruments; calculation of report values from generated date; recognition of obtained values as being expected or abnormal; correlation of obtained values with disease or pathology; and preparation of final laboratory reports for manual or computer posting. Specific procedures to be performed are a function of the assigned department(s). (SCANS 1,2,3,4,8). Liability insurance and proof of health insurance are required. Course may be substituted for CLSC 2221 and CLSC 2222. Prerequisites: CLSC 1223, CLSC 1211, CLSC 1212, CLSC 1304, CLSC 1601, CLSC 1602, CLSC 2211, CLSC 2212, CLSC 2223, CLSC 2601, CLSC 2602 and consent of department chair.

CLSC 2601 Clinical Microbiology
(6-0) ..... 6 hours
Consists of study of microorganisms of medical importance to man. Includes study of bacteriology, mycology, and parasitology. Emphasizes specimen requirements, isolation and culture techniques, staining characteristics, and biochemical tests used in identifying pathogenic microorganisms; their selection and performance; and their interpretation and correlation to human infections. (SCANS 1,2,4,6,7,,9,11). Stresses safety measures to prevent spread of infection. Prerequisite: Consent of the department chair. Corequisite: CLSC 2211.

CLSC 2602 Clinical Chemistry
(6-0) ..... 6 hours
Consists of the study of clinical chemistry. Briefly reviews general chemistry, chemical calculation, and reagent preparation. Emphasizes theory and practical application of clinical chemistry procedures; the selection of appropriate tests; and the interpretation and correlation of laboratory data to disease conditions. Includes discussion and comparison of manual and automated chemistry procedures. (SCANS 1,2,3,4,6,7,8,9,11). Prerequisites: CLSC 2601 and consent of the department chair. Corequisite: CLSC 2212.

Computer Information Systems

Faculty: Mitch Slusher, chair; Ray Cone, Linda Fry, James Jordan, Dr. Ron Kern, Rochelle Mears, Willard Mears.

The computer information systems curriculum provides students with practical, job-related computer experience. Courses offered provide background terminology and concepts needed to understand and communicate; provide experience with programming languages, operating systems and software products; develop good programming and system design techniques; and encourage students to develop the ability to continue to grow and mature as knowledgeable computer professionals in a rapidly changing field.

Course of Study for Associate in Applied Science Degree

Computer Information Systems

	Semester Hrs
General Education Requirements	**23**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
MATH 1324 Mathematical Analysis for Business I	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877 or HIST 1302 U.S. History from 1877	3
SPCH 1321 Business and Professional Speech	3
PSYC 2302 Applied Psychology	3
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**39**
BCIS 1200 Programming Logic	2
BCIS 1401 Introduction to Computer Information Systems	4
BCIS 1302 PC Operating Systems	3
BCIS 2305 Systems Analysis Methods	3
BCIS 2377 Cooperative Work Experience	3
****Major Emphasis (Select either option I or II below)**	**24**
Total Semester Hours	**65**

**PHED 1100 should be the first course taken in physical education.*

****Major Emphasis Options:**

Option I - Business Programming

	Semester Hrs
ACCT 1370 Introduction to College Accounting	3
BUSI 2399 Spreadsheet Applications for Decision Making	3
BCIS 1320 AS/400 File Processing	3
BCIS 1403 COBOL Programming	4
BCIS 1419 RPG/400 Programming	4
BCIS 2419 Advanced RPG/400 Programming	4
BCIS 2320 AS/400 Operating Systems	3
Total Semester Hours	**24**

Option II - PC Support Specialist*

	Semester Hours
BCIS 1303 PC Hardware/Software	3
BCIS 1310 Database Management I	3
BCIS 1404 Programming in Pascal	4
BCIS 2215 Word Processing	2
BCIS 2220 Spreadsheets	2
BCIS 2310 Database Management Systems II	3
BCIS 2302 Network Operating Systems	3
BCIS 2415 Advanced Pascal/Data Structures	4
Total Semester Hours	**24**

**Minimal Entry Requirements: Keyboarding Skills, College Level Reading/Writing*

Course of Study for Certificate of Technology

Business Programming

	Semester Hours
General Education Requirements	**12**
ENGL 1301 Composition and Rhetoric	3
MATH 1324 Mathematical Analysis for Business I	3
SPCH 1321 Business and Professional Speech	3
ACCT 1370 Introduction to College Accounting	3
Major Requirements	**23**
BCIS 1200 Programming Logic	2
BCIS 1401 Introduction to Computer Information Systems	4
BCIS 1419 RPG/400 Programming	4
BCIS 2419 Advanced RPG/400 Programming	4
BCIS 1320 AS/400 File Processing	3
BCIS 2305 Systems Analysis Methods	3
BCIS 2320 AS/400 Operating Systems	3
Total Semester Hours	**35**

PC Support Specialist

General Education Requirements	**9**
ENGL 1301 Composition and Rhetoric	3
MATH 1324 Mathematical Analysis for Business I	3
SPCH 1321 Business and Professional Speech	3
Major Requirements	**29**
BCIS 1200 Programming Logic	2
BCIS 1302 PC Operating Systems	3
BCIS 1303 PC Hardware/Software	3
BCIS 1310 Database Management Systems I	3
BCIS 1401 Introduction to Computer Information Systems	4
BCIS 1404 Programming in Pascal	4
BCIS 2215 Word Processing	2
BCIS 2220 Spreadsheets	2
BCIS 2302 Network Operating Systems	3
BCIS 2310 Database Management Systems II	3
Total Semester Hours	**38**

Computer Information Systems Courses

BCIS 1200 Programming Logic
(2-0) ..... 2 hours
Presents the concepts and techniques needed for structured business program design and problem solving. Emphasis is placed on interpreting and using design tools and techniques for developing algorithms, interpreting program specifications and solving computer programming problems. Students will create and interpret flowcharts, develop formulas and conduct structured walk-thru's with their peers. (SCANS 1,2,3,5,6,8,9) Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

BCIS 1302 PC Operating Systems
(3-0) ..... 3 hours
A course on Microsoft's Disk Operating System for IBM and IBM-compatible microcomputers. This course will train new DOS users and improve the skills of the experienced DOS user. Students learn to take full advantage of a microcomputer's disk operating system by working with common commands and utility programs, designing a subdirectory structure, streamlining work by developing operating procedures with BATCH files, and customizing DOS sessions with AUTOEXEC.BAT and CONFIG.SYS files. Students will conduct an in-depth study of how MS-DOS manages disks, memory, and devices. Students will have an introduction to the Windows environment. (SCANS 3,4,6,7,8,9) Lab fee required. Prerequisites: BCIS 1401 or instructor approval.

BCIS 1303 Hardware and Software
(3-0) ..... 3 hours
Presents terminology, concepts, and design techniques surrounding PC hardware and software. Students will learn to choose the correct computer hardware for the appropriate task for new systems as well as to improve the design of existing systems. Hardware and software problem solving are key issues requiring creative thinking and reasoning. Interpretation of technical manuals, verbal and written communications, cost estimation, and efficient use of materials will also be covered. Fall only. (SCANS 1,2,3,4,7,8,9) Lab fee required. Prerequisite: BCIS 1401 and BCIS 1302 or instructor approval.

BCIS 1310 Database Management Systems I
(3-0) ..... 3 hours
Presents terminology, concepts, and techniques needed in database management and design methodology. Students will learn to acquire, organize, and interpret written and verbal information in a technological system using problem solving and creative thinking skills and available resources to produce new information needed for enterprise management. Spring only. (SCANS 1,2,4,6,7,9) Lab fee required. Prerequisite: BCIS 1200 and BCIS 1401 or instructor approval.

BCIS 1320 AS/400 File Processing
(2-3) ..... 3 hours
Presents file design and structure, screen design and maintenance, query mechanisms, and data file utilities. Includes hands-on applications for designing and maintaining file structures. Emphasis is placed on using system-application software packages to process information, perform mathematical as well as analytical calculations, create reports, and design and improve application software. Students will learn how to choose the correct procedures, and use their creativity/problem solving skills to create a useful and informational database system. Spring only. (SCANS 2,3,6,7,8,9) Lab Fee Required. Prerequisite: BCIS 1200 and BCIS 1401. Corequisite: BCIS 1419 or instructor approval.

BCIS 1401 Introduction to Computer Information Systems
(3-3) ..... 4 hours
Presents terminology, concepts and techniques needed to begin study of Computer Information Systems. Covers history, number systems, hardware fundamentals, software structure and design, and societal trends. Includes an introduction to modular program design with flowcharts. Emphasis is placed on using computer software packages including a word processor to process textual information, an electronic spreadsheet for numerical information, a database management system, a programming language, and MS-DOS. Using these, a student will be able to select the correct hardware/software for application to a given problem. Students will become familiar with locating and interpreting information located in the written materials, enabling them to become familiar with these packages as well as other software packages/languages. Lab exercises are designed to allow students to use reasoning abilities to solve problems and make decisions. (SCANS 1,2,3,6,8,9) Lab fee required. Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

BCIS 1403 COBOL Programming
(3-3) ..... 4 hours
This first course in COBOL covers the fundamentals of designing and developing structured programs for business applications, sequential file processing, input validation techniques, conditional branching structures, and tables. Output includes detail summary, and exception reports. Students design, write, test and document COBOL programs. Fall only. (SCANS 2,3,6,7,8,9) Lab fee required. Prerequisite: BCIS 1200, and BCIS 1401 or instructor approval.

BCIS 1404 Pascal Programming
(3-3) ..... 4 hours
Introduces programming concepts using the PASCAL language. Through structured techniques, students learn industry-based methodologies to evaluate, organize, design, create, improve, maintain, and document computer-based problems of elementary- and intermediate-level complexity. This includes beginning data structures through arrays, text files, and records. Competencies also include the interpersonal, problem-solving and advanced reasoning skills needed to apply programming principles to diverse programming needs of clients and customers in business and industry. (SCANS 5,6,7,8,9) Lab fee required. Prerequisite: BCIS 1200 and BCIS 1401 or instructor approval.

BCIS 1419 RPG/400 Programming
(3-3) ..... 4 hours
Presents the concepts and techniques needed for RPG program design and problem solving. Emphasis is placed on understanding and using RPG specifications and techniques for interpreting program specifications, creating algorithms, and coding computer programs. Students will code, test, and debug programs containing basic input/output operations, business calculations, control breaks, and arrays. Spring only. (SCANS 1,2,3,6,7,8,9) Lab fee required. Prerequisite: BCIS 1200 and BCIS 1401 or instructor approval.

BCIS 2215 Word Processing
(2-1) ..... 2 hours
Presents concepts of editors and word processors on microcomputer systems. Introduces terminology and techniques of using word processors with emphasis placed on use of Word Perfect. Lab fee required. (SCANS 1,2,6,8,9) Prerequisite: None.

BCIS 2220 Spreadsheets
(2-1) ..... 2 hours
A course that teaches all the fundamentals and many of the advanced features of Lotus 1-2-3. Topics covered include formulas, range commands, formatting, printing, proper spreadsheet design, statistical and financial functions, data management, graphs, table lookup functions, spreadsheet security, macros, and WYSIWYG. (SCANS 3,4,6,7,8,9) Lab fee required. Prerequisite: College math or instructor approval.

BCIS 2302 Network Operating Systems
(3-0) ..... 3 hours
Presents terminology, concepts, and design techniques that apply to computer networks. Students will learn how to select the correct network technology, apply this technology to task, as well as maintain and troubleshoot network equipment. Understanding systems and improving upon designs will be focal points. Students will acquire and interpret information both verbally and in written form, solve problems using creative thinking and mathematics skills, and communicate with other students their reasoning in network design technology. Spring only. (1,2,3,7,8,9,10) Lab fee required. Prerequisite: BCIS 1302 and BCIS 1303 or instructor approval.

BCIS 2305 Systems Analysis Methods
(3-0) ..... 3 hours
Students will learn how to plan, design, and construct complex technological systems utilizing Systems Development Life Cycle methodology and Rapid Development Prototyping concepts. Critical thinking, individual leadership, and personal responsibility skills will be evaluated using real-world information systems problems and a teamwork approach. Spring only. (SCANS 4,5,6,7,8,9,10,11) Lab fee required. Prerequisite: BCIS 1310 or instructor approval.

BCIS 2310 Database Management Systems II
(3-0) ..... 3 hours
A continuation of BCIS 1310. Students will engage in supervised Database Management design activities using 4GL languages. Teamwork, time management, written and verbal communications skills will be emphasized using hypothetical DBMS problems and a team approach. Fall only. (SCANS 1,2,4,5,6,9,10) Lab fee required. Prerequisite: BCIS 2310 or BCIS 2419 or instructor approval.

BCIS 2320 AS/400 Operating Systems
(2-3) ..... 3 hours
Presents operating systems, control language commands, control language programming, and security techniques. Students will learn to monitor the system and job statuses, manage input/output devices, run save/restore procedures, understand and handle messages, create control language programs, and manipulate system profiles and security. Emphasis is placed on reading and understanding technical manuals, the ability to gather and assimilate information from the computer system, the ability to prioritize and schedule jobs with existing resources, identify and solve problems with computer hardware and software, and the ability to recognize problems and implement plans of action. Fall only. (SCANS 1,4,6,8,9) Lab fee required. Prerequisite: BCIS 1401 and BCIS 1320 or instructor approval.

BCIS 2377 Cooperative Work Experience
(1-20) ..... 3 hours
A capstone course designed to integrate academic and technical course lectures and labs with on-the-job business/computer problems, modern business practices, human relations, and job-finding techniques. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem-solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

BCIS 2415 Advanced Pascal/Data Structures
(3-3) ..... 4 hours
A continuation of BCIS 1404. Emphasis is placed on dynamic data structures and advanced file handling techniques. Students will design, code, test, debug, and document programs. Programming techniques will involve arrays of record structures, both singly and doubly-linked dynamic record lists, binary tree dynamic record maintenance with recursive algorithms, and both internally and externally indexed files. (SCANS 1,6,7,8,9) Lab fee required. Prerequisite: BCIS 1404 or instructor approval.

BCIS 2419 Advanced RPG/400 Programming
(3-3) ..... 4 hours
A continuation of BCIS 1419. Emphasis is placed on advanced techniques of RPG programming. The students will design, code, test, and debug, data validation programs, programs to create and update indexed files, programs to create and update sequential files, design display files and code interactive computer programs. Throughout this course the student will develop the skills needed to read and interpret technical manuals, recognize problems, implement plans of design/recovery, working with the systems software as well as newly developed software. Fall only. (SCANS 1,6,7,8,9) Lab fee required. Prerequisite: BCIS 1419 and BCIS 1320 or instructor approval.

Computer Science

Faculty: Mitch Slusher, chair; Ray Cone, Dr. Ron Kern.

The computer science curriculum provides students with course work comparable to the first two years for a bachelor's degree in computer science. The ACM curricula recommendations for computer science (1983) serve as the basis for this area of study.

Course work introduces students to the concept of a program and techniques of good program design, to internal data representations and common data structures, to elementary mathematics associated with computer systems and to a working knowledge of Pascal, C, and assembly programming languages.

The following curriculum in computer science has been designed as a guide for those students wishing to prepare for a bachelor's degree in computer science.

Course of Study for Associate in Science Degree

Computer Science

	Semester Hrs
General Education Requirements	**44**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Any Sophomore Level Literature)	3
SPCH 1321 Business and Professional Speech	3
*MATH 1314 College Algebra	3
*MATH 1316 Trigonometry	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
Lab Science Sequence in Chemistry or Engineering Physics	8
Lab Science Elective	4
**PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**20**
COSC 1415 Introduction to Computer Science	4
COSC 1418 Programming Concepts I	4
COSC 2418 Programming Concepts II	4
COSC 2420 Programming Structures in C	4
COSC 2425 Organization and Assembly Language	4
Total Semester hours	**67**

** MATH 1348, MATH 2313 or MATH 2314 may be substituted. Because upper level institutions require advanced math courses, taking additional math courses in your degree plan is recommended.*

*** PHED 1100 should be the first course taken in physical education.*

NOTE: Computer Science majors should consult the degree requirements of the university which they plan to attend before selecting electives or specific general education courses.

Computer Science Courses

COSC 1301 Introduction to Computer Systems (CS 1300)
(3-0) ..... 3 hours
Presents terminology, concepts, and techniques needed to begin study of computers. Covers hardware/software fundamentals, history, information systems concepts, and societal trends. Emphasis is placed on using the computer to process text and numeric information. By using software packages including a word processor, electronic spreadsheet, database management system, and MS-DOS, the student is able to identify and select the correct hardware/software to apply to a given problem. Lab exercises are designed to allow students to use their reasoning ability to solve problems and make decisions. Not for computer science majors or BCIS majors. (SCANS 2,3,6,8,9) Lab Fee Required. Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

COSC 1415 Introduction to Computer Science (CS 1450)
(3-3) ..... 4 hours
A first course for computer science majors or other majors where a computer language or computer minor would be of benefit. Presents terminology, concepts, and techniques, including hardware, firmware, and software. Emphasizes the application of software, logic, and structured programming techniques. Using these, students will be able to select the correct hardware/software to apply to a given problem. Laboratory exercises focus on the use of word processing to process textual information, electronic spreadsheet for numerical information, desktop publishing, MS-DOS, and data base application software. Introduces programming logic, structure, and techniques using the Pascal language. Lab exercises are designed for students to use, follow and interpret written instructions and to use their reasoning ability to solve problems and make decisions. Lab fee required. (SCANS 1,2,3,6,8,9) Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

COSC 1418 Programming Concepts I (CS 1451)
(3-3) ..... 4 hours
Programming techniques using the Pascal language. Emphasis will be on problem analysis as well as on structured program design and production. Topics include text file processing, arrays and records. Lab fee required. (SCANS 5,6,7,8,9) Prerequisite: COSC 1415 or both BCIS 1200 and BCIS 1401 or department approval.

COSC 2418 Programming Concepts II (CS 2451)
(3-3) ..... 4 hours
A continuation of COSC 1418. Emphasis is placed on dynamic data structures and advanced file handling techniques. Students will design, code, test, debug, and document programs. Programming techniques will involve arrays of record structures, both singly and doubly-linked dynamic record lists, binary tree dynamic record maintenance with recursive algorithms, and both internally and externally indexed files. (SCANS 1,6,7,8,9) Lab fee required. Prerequisite: COSC 1418 or BCIS 1404 or instructor approval.

COSC 2420 Programming Structures in "C" (CS 2420)
(3-3) ..... 4 hours
Intermediate to advanced programming techniques and topics using the C programming language. A comparative approach relying on the student's prior knowledge of Pascal and structured programming techniques. A study of programming structures and algorithms in "C" including functions, arrays, records, files, classes, constructors, destructors and inheritance. Design and development of libraries and use of system calls. Spring only. (SCANS 1,6,7,8,9) Prerequisite: COSC ~~2418~~ or BCIS ~~2415~~.
1418 1404

COSC 2425 Computer Organization and Assembly Language (CS 2455)
(3-3) ..... 4 hours
Introduces concepts and terminology relating to the internal hardware and its operation. Includes detailed discussion of internal and external business operation, memory access, external storage media and port access. Numerous programs are written using assembly level code. Program exercises range from simple data manipulation, structured data manipulation, file I/O, to port device I/O. Students will be expected to provide all program exercises with both internal and external documentation. Fall only. (SCANS 1,6,7,8,9) Lab fee required. Prerequisite: COSC 1418 or BCIS 1404 or instructor approval.

Cosmetology

Faculty: Faye Morgan, chair; Sylvia Blain; Lou Ann Hitt; Johnnie Luttrell; Linda Sullivan.

Cosmetology courses at Odessa College seek to provide students with the skill and knowledge required to pass the Texas Cosmetology Commission examination for licensing in Texas and for successful entry into the cosmetology profession. All aspects of the beauty profession are presented, and training also is available for the cosmetologist seeking an instructor's license.

Requirements for admission to the cosmetology program, in addition to the Odessa College admission requirements, are having a personal interview with the department chair, getting a physical examination including a tuberculin test by a licensed physician and sending a $25 fee and two one and one half inch square pictures to the Texas Cosmetology Commission for a student permit. Students also are required to purchase a cosmetology kit. For admission, applicants should apply to Odessa College and to the chair of the Cosmetology Department.

The program is designed around an open-entry and -exit concept. Students may enroll in the program at any time during the year when a vacancy exists. Because of limited enrollment, students are urged to apply as early as possible before the date of proposed admission.

An advanced standing procedure is available for those individuals who hold a valid Texas cosmetology license which did not result from completion of a program at Odessa College. People in this category who wish to pursue an associate degree may satisfy cosmetology requirements outlined in the associate degree course of study in the following manner: (1) by providing proof of licensure to the college registrar and/or to the director of the cosmetology program; (2) by successfully completing COS 2601 and COS 2603 for a total of 12 semester hours credit; (3) by successfully completing a comprehensive examination for 24 of the 36 required hours of cosmetology listed in the course of study, the examination to be administered and evaluated by the Department of Cosmetology; and (4) by satisfying all other requirements in the course of study for an Associate in Applied Science degree in cosmetology. **Any deviation from these stipulations must be petitioned for in writing and approval must be received in advance from the Cosmetology Department chair and the Dean of Humanities and Communications.**

Student liability insurance is required for students enrolled in cosmetology.

Course of Study for Associate in Applied Science Degree

Cosmetology

	Semester Hrs
General Education Requirements for all Cosmetology Degrees	**20**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
GOVT 2301 U.S. and Texas Government	3
MATH 1332 Structures of College Mathematics I or higher level math	3
PSYC 2301 Introduction to Psychology	3
SPCH 1311 Introduction to Speech Communication	3
*PHED (Any two one-hour activity courses.)	2

In addition to the 20 hours listed above, students must select one of the following options.

Cosmetology Operator Option

Major Requirements (1500 Clock Hours)	**36**
(Classes meet 8 hours per day, Monday through Thursday)	
COS 2601 Orientation	6
COS 2602 Introduction to Cosmetology	6
COS 2603 Cosmetology I	6
COS 2604 Cosmetology II	6
COS 2605 Cosmetology III	6
COS 2606 Cosmetology IV	6
Elective (must be outside the major area)	**4**
Related Required Courses	**3**
MGT 2344 Fashion Promotion	3
Total Semester Hours	**63**

Note: Students successfully completing the 1500 clock hour major requirements are eligible to take the Texas Cosmetology Commission examination for licensure as a cosmetology operator.

Students not desiring the Associate of Applied Science Degree may receive a Cosmetology Operator Certificate of Completion by successfully completing COS 2601; COS 2602; COS 2603; COS 2604; COS 2605; and COS 2606.

Cosmetology Instructor Option

Major Requirements (750 Clock Hours)	**32**
COS 2811 Orientation and Lesson Plan Development	8
COS 2812 Practical Clinical Management	8
COS 2813 Classroom Teaching of Informational Theory	8
COS 2814 Preparation for State Cosmetology Commission	8
Elective (must be outside the major area)	**5**
Related Required Courses	**6**
MGT 2344 Fashion Promotion	3
PSYC 2315 Personal Applications of Psychology	3
Total Semester Hours	**63**

Note: Students successfully completing the 750 clock hours major requirements are eligible to take the Texas Cosmetology Commission examination for licensure as a cosmetology instructor.

Students not desiring the Associate of Applied Science Degree may receive a Cosmetology Instructor Certificate of Completion by successfully completing COS 2811, COS 2812, COS 2813 and COS 2814.

**PHED 1100 should be the first course taken in physical education.*

Cosmetology Courses

COS 2601 Orientation
(4-28) ..... 6 hours
Introduces field of cosmetology by presenting terminology, concepts, and techniques relevant to the industry. Emphasizes basic principles and practices involving hair-dressing, personality development, visual poise, time management, and sanitation/ safety habits.(SCANS 1,4,8,10) Prerequisite: None.

COS 2602 Introduction to Cosmetology
(4-28) ..... 6 hours
Develops fundamental knowledge and understanding of related sciences and mathematics relevant to cosmetology. Teaches time management, safety and systematic procedures. (SCANS 3,4,8) Prerequisite or corequisite: COS 2601.

COS 2603 Cosmetology I
(4-28) ..... 6 hours
Provides instruction of manipulative skills, knowledge and desirable attitudes to promote gainful employment. Emphasizes sociability, and communication skills to maintain customer relationships. Stresses rules, regulations, and preparation for the Texas Cosmetology Commission licensure test. (SCANS 5,9,10,11) Prerequisite: COS 2602.

COS 2604 Cosmetology II
(4-28) ..... 6 hours
Provides manipulative skills for rendering personal beauty services. Includes all skills pertaining to hairdressing, nail care and skin care in conjunction with a time schedule. Emphasizes select care and proper use of commercial products and equipment. (SCANS 4,8,9) Prerequisite: COS 2603.

COS 2605 Cosmetology III
(4-28) ..... 6 hours
Presents basic chemical characteristics of cosmetics used in beauty salons. Stresses basic principles of chemistry essential to straighten, curl, color and bleach hair. Teaches customer relations, time management and decision making. (SCANS 4,5,8,9) Prerequisite: COS 2604.

COS 2606 Cosmetology IV
(4-28) ..... 6 hours
Introduces principles used in planning a salon. Stresses location, space allotment and installation cost as well as financial aspects of salon operation. Includes insurance needs and legal requirements regarding wages, working hours and working conditions. (SCANS 3,4,5) Prerequisite: COS 2605.

COS 2811 Orientation and Lesson Plan Development
(8-24) ..... 8 hours
Develops teaching skills, methods and techniques. Emphasizes basic unit planning and daily lesson development. (SCANS 9,10) Prerequisite: cosmetology operator's license.

COS 2812 Practical Clinical Management
(8-24) ..... 8 hours
Develops practical clinic management techniques. Includes supervision of students in lab and classroom situations, as well as development of assessment tools. (SCANS 5,8,9). Prerequisite or corequisite: COS 2811.

COS 2813 Classroom Teaching of Informational Theory
(8-24) ..... 8 hours
Develops methods and techniques of teaching informational theory. Emphasizes self-management, oral and written communication, creative thinking, and leadership skills. (SCANS 5,9,11) Prerequisite: COS 2812.

COS 2814 Preparation for State Cosmetology Commission
(8-24) ..... 8 hours
Designed to prepare students to pass Texas Cosmetology Commission examination for licensure of cosmetology instructors. Emphasizes organization of information for developing and presenting a lesson plan. (SCANS 2,5,6,11) Prerequisite: COS 2813.

Specialization Programs

Manicurist Specialist Program

A licensed manicurist may practice manicuring and pedicuring for compensation in a licensed beauty salon or manicuring salon.

COS 1501 Manicuring Specialization
(8-24) ..... 5 hours
Emphasizes basic manicuring skills, time allotment schedules, and professional student/client relationships. Presents all aspects of manicures and pedicures. Includes artificial nail application and removal. Prepares students to test for state licensure as a manicurist upon completion of course. (SCANS 4,5,8) Prerequisite: None.

Facial Specialist Program

A licensed facial specialist is authorized to practice facials, which entail application of facial cosmetics and facial manipulations. Includes licensed salon work such as eye tabs, arches, lash and brow tints and temporary removal of facial hair.

COS 1603 Facial Specialization I
(8-22) ..... 6 hours
Prepares student to pass exam for state licensure with knowledge and skills needed as a facial specialist. Furnishes students with knowledge to allocate and follow a time schedule which coincides with the student/customer relationship. Emphasizes related technology selection necessary for application of cosmetics and facial manipulations. Includes eye tabs, arches, lash and brow tints, and temporary removal of facial hair. (SCANS 4,5,8) Prerequisite: None.

COS 1604 Facial Specialization II
(8-22) ..... 6 hours
A continuation of COS 1703. Provides student with knowledge and skills needed to pass exam for state licensure as a facial specialist. (SCANS 4,5,8) Prerequisite: COS 1703.

Shampoo-Conditioning Specialist Program

A licensed shampoo specialist is authorized to render shampoos, scalp manipulations and scalp treatments. Also authorizes the application of conditioners, rinses and shampoos in a licensed beauty salon.

COS 1302 Shampoo and Conditioning Specialist
(5-20) ..... 3 hours
Teaches shampooing and conditioning as a responsible salon team member. Emphasizes professional student/customer relationship. Includes chemistry, histology, disorders, and treatments of the skin and scalp. Completion qualifies student to test for state licensure as a shampoo-conditioning specialist. (SCANS 5,9,10) Prerequisite: None.

(The Texas Higher Education Coordinating Board is considering a Shampoo-Conditioning Specialist Certificate of Completion. See the department chair for further information.)

Criminal Justice *(see Law Enforcement/Criminal Justice)*

Culinary Arts

Faculty: Peter Lewis, chair; Jeffrey Dombeck, Terry Gouley.

Odessa College offers an Associate in Applied Science Degree program in Culinary Arts. This program trains individuals in the basic and advanced principles of food preparation and baking, with additional emphasis focusing on managerial and supervisory skills and practices. The curriculum intends to prepare individuals for entry level professional positions as cooks and bakers and would afford those individuals with sufficient thinking, reasoning and application skills to pursue and obtain advancement in their chosen profession.

Course of Study for Associate in Applied Science Degree

Culinary Arts

	Semester Hrs
General Education Requirements	**29**
ENGL 1301 Composition and Rhetoric	3
SPCH 1311 Introduction to Speech Communication	3
PSYC 2301 Introduction to Psychology	3
COSC 1301 Introduction to Computer Systems	3
SOCI 1301 Principles of Sociology	3
GOVT 2301 U.S. and Texas Government	3
ACCT 1370 Introduction to College Accounting	3
MGMT 1301 Introduction to Management	3
MATH 1332 Structures of college Mathematics or higher level math	3
*PHED (any two activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**27**
CA 1201 Food Preparation and Production	2
CA 1202 Soups and Sauces	2
CA 1203 Pantry and Short-Order Cooking	2
CA 1206 Introduction to Baking	2
CA 1207 Patisserie	2
CA 1208 Classical Desserts	2
CA 2210 A La Carte Cooking	2
CA 2211 International Cuisine	2
CA 2212 American Regional Cuisine	2
CA 2215 Food Sculpture and Design	2
CA 2216 Charcuterie	2
CA 2217 Buffet Theory and Production	2
CA 1320 Sanitation Principles and Practices	3
Related Required Courses	**12**
CA 1221 Tableservice and Mixology	2
CA 1321 Stewarding	3
CA 1322 Nutrition	3
CA 2223 Food Service Management	2
CA 2224 Menu Design and Layout	2
Total Semester Hours	**71**

**PHED 1100 should be the first course taken in physical education.*

Culinary Arts Certificate Program

This program is designed for the individual who cannot commit to two years in a formalized degree program but wishes to obtain employable skills in the food service industry as quickly as possible. Individuals who complete this program and secure employment may continue their studies toward a degree on a part-time basis without having to repeat major or related courses in the degree sequence.

Course of Study for the Culinary Arts Certificate of Completion

	Semester Hrs
General Education Requirements	**10**
ENGL 1301 Composition and Rhetoric	3
PSYC 2301 Introduction to Psychology	3
MATH 1370 Technical College Mathematics or higher level math	3
*PHED	1
Major Requirements	**15**
CA 1201 Food Preparation and Production	2
CA 1202 Soups and Sauces	2
CA 1203 Pantry and Short Order Cooking	2
CA 2210 A La Carte Cooking	2
CA 2211 International Cuisine	2
CA 2212 American Regional Cuisine	2
CA 1320 Sanitation Principles and Practices	3
Related Required Courses	**8**
CA 1222 Tableservice and Mixology	2
CA 1321 Stewarding	3
CA 1322 Nutrition	3
Total Semester Hours	**33**

**PHED 1100 should be the first course taken in physical education.*

Career Certificate Program

This program is designed for individuals employed within the food service industry who are not interested initially in the Associate in Applied Science Degree or the Culinary Arts Certificate but who wish to pursue certification in one or more courses within the culinary arts curriculum. The Career Certificate Program provides the student with several flexible options:

Option One: Earning credits and/or continuing education units in one or all of the designated major and related major culinary arts courses.

Option Two: Pursuing on a part-time basis those courses that lead towards a credential, either a certificate, diploma or associate of applied science degree.

Option Three: Completing all of the designated courses required to receive a certificate of recognition for accomplishment that could in the future be applied towards a one year diploma or associate of applied science degree.

Course of Study for Career Certificate of Completion

	Semester Hrs
CA 1201 Food Preparation and Production	2
CA 1202 Soups and Sauces	2
CA 1203 Pantry and Short Order Cooking	2
CA 1206 Introduction to Baking	2
CA 1207 Patisserie	2
CA 1208 Classical Desserts	2
CA 2210 A La Carte Cooking	2
CA 2211 International Cuisine	2
CA 2212 American Regional Cuisine	2
CA 1320 Sanitation Principles and Practices	3
Total Semester Hours	**21**

Student Equipment Requirements for Major Courses

CA 1201, 1202 and 1203
Two Chef's uniforms consisting of long-sleeved jackets, checkered pants and aprons.
Basic Chef's Tool Kit consisting of the following:

A. French Knife 8" or 10" blade
B. Paring Knife 3 1/2" blade
C. Vegetable Peeler
D. Cook's Fork
E. Boning Knife—5 1/2" rigid blade
F. Metal Measuring Spoons
G. French Whip

CA 1206, 1207 and 1208
Two Chef's uniforms consisting of long-sleeved jackets, checkered pants and aprons.
Basic Tool Kit consisting of the following:

A. French Knife 8" or 10" blade
B. Paring Knife 3 1/2" blade
C. Vegetable Peeler
D. French Whip
E. Two Icing Spatulas 8" or 10"
F. One Wilton Decorating Kit
G. One Serrated Meat Slicer

CA 2210, 2211 and 2212
Uniforms and tool kit identified in CA 1201, 1202 and 1203.

CA 2215, 2216 and 2217
Uniforms and tool kit identified in CA 1201, 1202 and 1203

1 Set of 1/2" Aspic Cutters
1 Exacto Knife
1 Set of Butter Sculpture Tools

Culinary Arts Courses

CA 1201 Food Preparation and Production
(3-9) [5 weeks] ..... 2 hours
Introduces the basic principles, concepts and production systems associated with basic food preparation. The student will be able to read and interpret menus, perform basic calculations to obtain desired food quantities, and select the prescribed procedures, tools, equipment and food supplies to produce specific menu items. The student will also be able to apply the principles of food technology to the production systems and understand the interrelation between food preparation and the importance of food quality, with emphasis on employing the correct sanitation procedures. (SCANS 1,3,7,8). Lab fee required. Prerequisite: None. Corequisite: CA 1202 and CA 1203 or permission of the instructor.

CA 1202 Soups and Sauces
(3-9) [5 weeks] ..... 2 hours
Introduces the basic concepts for the construction, production, holding for service and storage of stocks, soups and sauces. The student will be able to interpret recipes, calculate basic recipe conversions, select and acquire materials for the creation of specific food items. The student will also be able to use the basic technologies of stocks, soups and sauces to develop complex soups and short-sauces. The student will acquire and evaluate their proficiency in the holding for service, cooling, storage and reheating of specific food items. (SCANS 1,3,4,6,7,8). Lab fee required. Prerequisite: CA 1201. Corequisite: CA 1201 and CA 1203 or permission of the instructor.

CA 1203 Pantry and Short-Order Cooking
(3-9) [5 weeks] ..... 2 hours
Introduces the basic principles of pantry and short-order service with emphasis on the construction and production of salads, salad dressings, breakfast and short-order food items. The student will be able to interpret recipes, perform basic recipe conversions, select materials necessary to perform specific tasks and understand the basic production technologies associated with specific food items. The student will also participate as a team member and be able to understand how the various production systems are inter-related. (SCANS 1,3,4,5,7,8). Lab fee required. Prerequisite: CA 1201 and CA 1202. Corequisite: CA 1201 and 1202 or permission of the instructor.

CA 1206 Introduction to Baking
(3-9) [5 weeks] ..... 2 hours
Introduces the basic principles associated with the construction and presentation of basic breads and rolls, pies, cookies and cakes. The student will be able to interpret recipes, perform basic conversions to obtain desired quantities, acquire food supplies, tools and equipment necessary to produce baked goods. The student will also understand the principles of food technology and apply these principles to the various production systems for specific bakery items. (SCANS 1,3,4,7,8). Lab fee required. Prerequisite: None. Corequisite: CA 1207 and 1208 or permission of the instructor.

CA 1207 Patisserie
(3-9) [5 weeks] ..... 2 hours
Introduces pastry-based desserts with emphasis on the construction and presentation of "complex" pastries and desserts. The student will be able to interpret recipes, perform basic conversions and select the procedures, tools and equipment required to produce dessert items. The student will also understand the inter-relationship between production technologies and solve problems associated with production strategies. (SCANS 1,3,4,8,9). Lab fee required. Prerequisite: CA 1206. Corequisite: CA 1206 and CA 1208 or permission of the instructor.

CA 1208 Classical Desserts
(3-9) [5 weeks] ..... 2 hours
Introduces the classical desserts developed by Careme and Escoffier with emphasis on gateauxs, meringues, tortes, mousses and gelatin-based desserts. The student will be able to understand the bakery systems applied to classical desserts, apply the specific technologies to specific tasks and solve or prevent problems. The student will also develop new ideas on the production and service of classical desserts and develop templates and marketing strategies. (SCANS 1,2,3,4,7,8,9). Lab fee required. Prerequisite: CA 1206 and CA 1207. Corequisite: CA 1206 and CA 1207 or permission of the instructor.

CA 1221 Tableservice and Mixology (CA 1222)
(2-0) ..... 2 hours
Introduces the principles, concepts and systems of professional tableservice and mixology. The student will be able to interpret the guest's orders, write guest checks, tabulate the guest's charges and serve the customer to their expectations. The student will also understand the basic systems associated with guest service, function individually and as a member of a team, and be aware of the legal strictures to prevent problems. The student must demonstrate the ability to listen and speak well to promote the guest's comfort and enjoyment. (SCANS 1,2,3,5,7,9,11). Prerequisite: None.

CA 1320 Sanitation Principles and Practices
(3-0) ..... 3 hours
Introduces the causes and prevention strategies for food-borne illnesses and diseases; the methods employed for food protection, the principles of personal grooming and food handling practices. The student will be able to understand and interpret written information, communicate both verbally and in writing the visible and non-visible sanitation problems, exercise leadership to resolve sanitation issues and demonstrate an understanding of the preferred sanitation systems and suggest improvements for existing systems. The student will also select the appropriate chemicals, maintain kitchens in a safe and sanitary fashion and monitor the progress of the sanitation system. (SCANS 1,2,4,5,7,8,9,10) Prerequisite: None.

CA 1321 Stewarding
(3-0) ..... 3 hours
Introduces the basic purchasing, storage, issuing and accounting principles employed in the food service industry. The student will be able to write and interpret food specifications, develop quotation sheets, select food and equipment merchandise, compute invoices and requisitions, select appropriate storage procedures, issue requested items and account for storeroom practices. The student will also communicate with co-workers to resolve conflicts and concerns, serve as a member of the management team and employ an honest and ethical course of action. (SCANS 2,3,5,10). Prerequisite: None.

CA 1322 Nutrition
(3-0) [5 weeks] ..... 3 hours
Introduces the concepts and principles of normal nutrition, with emphasis on the importance of nutrients, their roles and functions within the body and throughout one's life. The student will be able to understand and interpret nutritional concepts and issues, through case analysis develop written thoughts and solutions to nutritional issues, determine and estimate the nutritional value of specific food groups within one's diet. The student will also acquire and evaluate new concepts, resolve nutritional issues and exert a high level of effort to maintain a nutritionally sound lifestyle. (SCANS 1,2,3,4,6,9). Prerequisite: None.

CA 2210 A La Carte Cooking
(3-9) [5 weeks] ..... 2 hours
Introduces advanced theories and production systems associated with a la carte or "cooking to order" concepts. The student will be able to interpret menus and recipes, calculate quantities, assemble food and equipment materials and employ appropriate cooking, plating and saucing principles. The student will also be able to identify and correct cooking errors, organize work stations for productive performance and serve as a member of a team. (SCANS 1,3,4,5,7,8). Lab fee required. Prerequisite: CA 1201, 1202 and 1203. Corequisite: CA 2211 and CA 2212 or permission of the instructor.

CA 2211 International Cuisine
(3-9) [5 weeks] .....2 hours
Introduces the classical cooking skills associated with the preparation and service of international and ethnic specific cuisines. The student will be able to understand the similarities between current food production systems in the United States and those in other regions of the world. The student will also be adaptable to various deviations in cooking strategies, develop an understanding of food sources and the availability of these item, making substitutions where warranted. International Cuisine also focuses on the heritage of the Culinary Arts as an art and the student acquires in-depth artistic appreciation for their chosen profession. (SCANS 4,6,8,9). Lab fee required. Prerequisite: CA 2210. Corequisite: CA 2210 and 2212 or permission of the instructor.

CA 2212 American Regional Cuisine
(3-9) [5 weeks} .....2 hours
Introduces the development of regional cuisines in the United States with emphasis placed on the similarities in production and service systems. The student will be able to adapt regional recipes to standard systems of production, calculate quantities for production, organize team members for production and service and be able to anticipate the desired outcomes. The student will also be able to develop, organize and build a portfolio of recipe strategies and production systems. Lab fee required. (SCANS 1,2,3,4,6,8,9) Prerequisite: CA 2210 and CA 2211 Corequisite: CA 2210 and CA 2211 or permission of the instructor.

CA 2215 Food Sculpture and Design
(3-9) [5 weeks] .....2 hours
Introduces the garde manger arts with emphasis on the construction and presentation of canapés, hors d'oeuvres, aspics and chaud-froid display pieces. The student will be able to read and interpret recipes, organize and write production activities, design templates, calculate food and labor costs, construct a variety of hot and cold canapés and hors d'oeuvres based on a systems concept, and understand the basic construction and assembly processes for aspic and hot/cold food displays. The student will also solve assembly and production problems, organize a teamwork process for the garde manger arts and critically evaluate the finished products. Lab fee required. (SCANS 1,2,3,5,8,9). Prerequisite: CA 1201, 1202, 1203 Corequisite: CA 1216 and CA 2217 or permission of the instructor.

CA 2216 Charcuterie
(3-9) [5 weeks] .....2 hours
Introduces the student to complex garde manger skills associated with the construction of pates, galantines, terrines, meat mousses, timbales and gross display pieces. The student will be able to read, write and convert recipes, calculate quantities to be prepared, determine food and labor costs, organize the work area, acquire unique food items and tools, and know how to assemble unique food items. The student will also function as a member of a team and suggest new or alternative methods for the construction of charcuterie based items. Lab fee required. (SCANS 1,2,3,5,7,8,9). Prerequisite: CA 2215. Corequisite: CA 2215 and CA 2217 or permission of the instructor.

CA 2217 Buffet Theory
(3-9) [5 weeks] .....2 hours
Introduces the student to the construction of non-edible display items such as ice carvings, butter and tallow displays, pastillage and flower arranging; the development of buffet themes, the layout of tables and the production and service of buffet food items. The student will be able to read, write and calculate recipes, develop and implement work schedules for the production of display pieces, acquire specialized foods and equipment, demonstrate an understanding of basic production systems and correlate with the production of buffet items, and organize buffet tables for presentation and service. (SCANS 1,2,3,5,7,8) Lab fee required. Prerequisite: CA 2216. Corequisite: CA 2216 AND CA 2217 or permission of the instructor.

CA 2223 Food Service Management
(2-0) ..... 2 hours
Introduces the student to the principle concepts and topics of food service management and examines the issues, concerns and systems employed to ensure a successful food service operation. The student will be able to interpret policy manuals and procedures, communicate with others, both verbally and in writing, the policies and procedures, project income, expenditures and profits, prioritize activities, acquire and evaluate information and monitor and correct the performance of other employees. The student will also understand the importance of a team strategy, generate new ideas, project a professional work ethic and be able to listen and respond effectively. (SCANS 1,2,3,4,5,6,7,9,10,11). Prerequisite: None. Corequisite: None.

CA 2224 Menu Design and Layout
(2-0) ..... 2 hours
Introduces a variety of menu strategies which are employed in the construction of menus. The student will be able to select and develop four types of menu strategies, develop a menu layout using printing technology and write copy, calculate menu selling prices, reconcile the fixed and variable costs with profit margins and expectations, and acquire, interpret and evaluate menu sales. The student will also understand the importance of a menu in relationship to the organization of the kitchen and dining room, service to patrons and the skills required of a professional staff. (SCANS 1,2,3,4,5,6,8,9). Prerequisite: None. Corequisite: None.

Developmental Studies

Faculty: Ned Pilcher, director; Gregory D. Williams, tutoring services coordinator.

Odessa College offers a developmental studies program for those students who need further development in or who wish to review fundamentals of mathematics, reading, writing and speech. All courses described below in greater detail are elements of the developmental studies program.

These courses are designed to help students achieve fundamental skills that they may not have gained before entering Odessa College and to prepare students for college-level course work. The recommendation to enroll in one, some or all of the developmental courses is made on the basis of diagnostic testing, which can be administered prior to enrollment.

Courses listed below do not satisfy requirements for any degree at Odessa College. Students who intend to transfer to another community college, senior college or university should check with that institution to determine whether the hours earned in developmental studies will transfer for degree credit.

Developmental Science Course

BIOL 0371 Developmental Science
(3-3) ..... 3 hours
This is a compensatory, non-transferable science course designed to improve basic knowledge of the biological sciences, develop critical thinking skills and learn how to interpret data related to biological concepts. Students learn and use biological terminology, mathematical calculations involved in converting between the English and metric systems of measurement, and basic chemical calculations. Students also learn specific information about the basic chemistry of life processes, cells, tissue, organs and systems with emphasis on human biology. Lab fee is required. (SCANS 1,3,6,9) Prerequisite: None.

Courses and Services Available in Developmental Studies

English Courses and the Writing Lab

ENGL 0371, Basic English, and the four one-hour lab courses — ENGL 0171, ENGL 0172, ENGL 0173 and ENGL 0174 — are designed to help students become more successful in using grammar and writing skills. The Basic English course covers a wide variety of English fundamentals and is specifically designed to prepare students for ENGL 1301, Composition and Rhetoric. Students may enroll in self-paced or classroom instruction for institutional credit, but none of the English courses listed below satisfy requirements for any degree plan at Odessa College.

ENGL 0370 Basic English (ENGL 1300)
(3-0) ..... 3 hours
A compensatory course designed to improve basic thinking and writing skills. Emphasizes essay development and use of conventional English. Requires essays composed in response to various prompts. Prepares student for ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. The student must attain a "C" or better before enrolling in ENGL 1301. (SCANS 2,9) Lab fee required for ENGL 0370 WP (Word Processing). Prerequisite: None. Corequisite: Students who have not taken and passed the reading section of TASP must enroll in a reading class.

The lab courses, ENGL 0171 through 0174, provide practical help in selected areas of English. They focus specifically on principles of the simple sentence, focus and unity, organization and usage. Students are guided into these courses according to their performance on the TASP test and on placement tests administered in the testing center, located on the second floor of the Student Union Building.

ENGL 0171 Sentence Structure (ENGL 1101)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes techniques for creating concise and effective sentence structures. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9) Prerequisite: Consent of the instructor.

ENGL 0172 Focus and Unity (ENGL 1102)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes recognition of purpose and audience and techniques of maintaining unity in a piece of writing as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9) Prerequisite: Consent of the instructor.

ENGL 0173 Organization and Development (ENGL 1103)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes paragraph organization, cohesion and sequencing of ideas as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9) Prerequisite: Consent of the instructor.

ENGL 0174 Usage (ENGL 1104)
(0-1) .....1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes recognition and incorporation of standard usage in sentence composition, focusing on verb and pronoun usage, standard punctuation, modifier usage, plural and possessive conventions, and precise and appropriate word choice as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Prerequisite: Consent of the instructor.

The Tutoring Center, located in the Electronics Technology Building, Room 120, and the writing lab, located in Wilkerson Hall, Room 206, offer supplemental, individualized assistance in grammar, spelling, composition and techniques of research to any student who needs improvement in writing ability or skill in literary analysis. Assistance is provided to both walk-in students and students referred by an instructor or by a counselor. Assistance is free of charge.

Math Courses and the Tutoring Lab

MATH 0371, Basic Mathematics, addresses the four fundamental operations of mathematics and additional topics. The course is designed to prepare students for MATH 0372, Introductory Algebra, and should be taken as a preparatory course only. MATH 0372, Introductory Algebra, continues the review of the basic functions in mathematics and introduces elementary algebra concepts. MATH 0375, Intermediate Algebra, completes the review of elementary algebra concepts and prepares the student for entry into College Algebra. Four one-hour lab courses — MATH 0171, MATH 0172, MATH 0173 and MATH 0174 — provide review of mathematics fundamentals, graphing and equations, algebraic operations and quadratics, and geometry and reasoning. None of these courses satisfies the requirements for any degree plan at Odessa College, and they will not be accepted in transfer to other colleges and universities. Students are guided into the courses on the basis of diagnostic pre-tests that are available in the testing center on the second floor of the Student Union Building.

MATH 0371 Basic Mathematics (MATH 1311)
(3-0) .....3 hours
Presents four fundamental operations of addition, subtraction, multiplication and division of whole numbers, common fractions, decimal fractions and signed numbers. Includes percentages, metric system and geometric measurements. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: None.

MATH 0372 Introductory Algebra (MATH 1313)
(3-0) .....3 hours
Introduces elementary algebra with some arithmetic review. Includes signed numbers, polynomial multiplication and division, factoring, linear and quadratic functions and word problems. Includes percentages, metric system and geometric measurements. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: MATH 0371 or satisfactory placement score.

MATH 0373 Elementary Mathematics of Finance (MATH 1315/1321)
(3-0) ..... 3 hours
Develops skills in real number and algebraic operations with particular application to business and accounting problems. Includes percent, interest, annuities, insurance, payroll, taxes, depreciation, financial statements, profit distribution, graphs and basic statistics. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course may not be accepted for credit by all senior colleges. (SCANS 3,8,9) Prerequisite: MATH 0372 or equivalent placement score.

MATH 0375 Intermediate Algebra (MATH 1335)
(3-0) ..... 3 hours
A study of real number operations, linear and quadratic inequalities, exponents and radicals, rational expressions, the straight line and linear equations. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course may not be accepted for credit by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: MATH 0372, satisfactory placement score or passing score on TASP.

The Tutoring Center, located in Room 120 of the Electronics Technology Building, offers tutoring to Odessa College students and has extensive supplemental materials that parallel the developmental mathematics courses. Audio-tutorial and computer programs demonstrate the relationships between mathematics and everyday situations involving mathematics, in addition to presenting materials on the four basic mathematical operations. Materials and assistance also are available to students wishing to review mathematical concepts related to vocational course work.

The four one-hour lab courses follow. Students are guided into these courses according to their performance on the TASP test and on placement tests administered in the testing center, located on the second floor of the Student Union Building.

MATH 0171 Fundamental Math
(0-1) ..... 1 hour
Provides a review of fundamental mathematics. Presents the use of number concepts and computation skills. Includes solving word problems using integers, fractions and decimals as well as percents, ratios and proportions. Includes how to interpret information from a graph, table or chart, use measure of central tendency, and variability. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0172 Algebra — Graphing and Equations
(0-1) ..... 1 hour
Provides a review of algebra — graphing and equations. Presents graphs of numbers and number relationships. Introduces how to solve one- and two-variable equations including word problems. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0173 Algebra — Operations and Quadratics
(0-1) ..... 1 hour
Provides a review of algebra — operations and quadratics. Presents operations with algebraic expressions. Investigates problems involving quadratic equations, inequalities and their graphs. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0174 Geometry and Problem Solving
(0-1) ..... 1 hour
Provides a review of geometry and reasoning. Presents problems involving geometric figures and investigates how to apply reasoning skills, apply combinations of mathematical skills to solve problems. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

Reading Courses and the Reading Lab

An effective citizen must read well, and reading courses help to develop efficient tools to use in today's society. These courses implement the philosophy that the ultimate in reading ability is never reached and that good study skills are predominantly good reading skills. Time spent in a program is an investment in self. All people, regardless of their reading ability or what kind of grades they make, can improve their reading skills.

Courses listed below do not satisfy requirements for any degree at Odessa College. Students who intend to transfer to another community college, senior college or university should check with that institution to determine whether hours earned in reading will transfer for degree credit.

READ 0371 Basic Reading (READ 1300)
(3-0) ..... 3 hours
Initiates instruction in developmental reading with emphasis on building vocabulary, increasing reading rate, and improving comprehension. Aims to empower students with independent learning techniques and effective study skills to enhance self esteem and reaffirm the belief in self as a successful learner. Includes individual diagnosis of reading strengths and weaknesses for placement in multi-leveled materials. Lab fee required. (SCANS 1,9,10) Prerequisite: None or placement by counselors.

READ 0372 College Reading (READ 1301)
(3-0) ..... 3 hours
Stresses efficient learning techniques and application of reading and study skills. Students are encouraged to establish habits that result in increased success in learning in both the classroom and job environments. Includes diagnosis of reading strengths and weaknesses for placement in computer exercises, timed reading practices and vocabulary study. (SCANS 1,9,10). Lab fee required. Prerequisite: Read 0371 passed with a "C" or better or satisfactory placement score.

READ 0373 Advanced College Reading (READ 1302)
(3-0) ..... 3 hours
Continues independent work to maintain improved critical reasoning skills designed to meet specific needs in comprehension, vocabulary, rate, and study skills. The student monitors and corrects ineffective behavior as he assesses self accurately, sets personal goals, and monitors progress. (SCANS 1,7,9,10) Lab fee required. Prerequisite: Read 0372 passed with a "C" or better or satisfactory placement score.

College Reading Techniques

The college reading techniques courses taught in the Electronics Technology Building, Room 110, provide an alternative reading program with structured, individualized, self-paced instruction.

Registration is open to everyone, and anyone may enroll for non-credit or for one, two or three semester hours of credit. Non-credit enrollment also is available for junior and senior high school students. Standardized tests are given to determine beginning reading performance levels and specific areas of need. Through student-teacher conferences, a self-paced plan of action is developed to set immediate and long-range goals. Pre-tests are scheduled by appointment with the instructor in the Electronics Technology Building, Room 123.

Students enrolling in any of the three lab courses should consult with the lab instructor as early in the semester as possible to arrange a meeting time. Materials covered and skills learned in the three one-hour reading lab courses — READ 0171, READ 0172 and READ 0173 — are equal to one three-hour college reading course.

READ 0171 Improving Reading Skills (READ 1101)
(0-24) ..... 1 hour
Introduces a self-paced individualized instruction in a multi-media environment which is designed to teach the student efficient reading techniques. Students establish habits that result in increased success in learning in both the classroom and job environments, resulting in higher self esteem. Through independent learning activities, the student learns to validate his understanding of reading materials. Student's vocabulary is increased with various written activities. To increase individual reading rate, students utilize computers and other pacing media. (SCANS 1,4,7,10) Lab fee required. Prerequisite: None.

READ 0172 Improving Reading Flexibility (READ 1102)
(0-12) ..... 1 hour
Aims to make student aware of importance of vocabulary and degree of comprehension expected when reading in a variety of materials at a variety of speeds. As the student becomes a more independent learner, he uses new techniques to acquire and apply information to more complex reading material. Lab fee required. (SCANS 1,9,10) Prerequisite: READ 0171.

READ 0173 Improving Reading Rate and Comprehension (READ 1103)
(0-12) ..... 1 hour
Provides opportunity to become a trained, successful reader able to handle large amounts of written materials by emphasizing purpose, concentration, recall, increased vocabulary, and rapid reading. Lab fee required. (SCANS 1,9,10) Prerequisite: READ 0171 or READ 0172.

Speech Communication

Speech 0300 is designed to help students develop skills in various areas of oral communication. This institutional-credit course should be taken for personal growth in communication skills and as a preparatory course for other college courses; it does not satisfy requirements for any degree plan at Odessa College. SPCH 0300 explores communication with self, one-to-one, small groups and one-to-many by examining self-concept, non-verbal communication, listening skills, perception, use of language and the organization and presentation of speeches.

SPCH 0300 Basic Speech Communication Skills (SPCH 1300)
(3-0) ..... 3 hours
A preparatory course in speech communication. Emphasizes interpersonal and small group communication. Offers opportunity to build critical thinking and communication skills. This course is developmental in nature and may not satisfy requirements toward a specific degree. (SCANS 5,9,10,11) Prerequisite: None.

Diesel Mechanics *(see Automotive Technology and Diesel Mechanics)*

Drafting Technology

Faculty: James McPherson, chair.

Drafters make working plans and detailed drawings for engineering construction or manufacturing purposes. They usually work from sketches, specifications or field notes furnished by an engineer, architect or designer. The drafting program is designed to provide basic preparation for entry-level employment.

Course of Study for Associate in Applied Science Degree

	Semester Hrs
General Education Requirements	17
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
MATH 1314 College Algebra [redacted] or MATH 137[redacted] College Algebra for Business	3
MATH 1316 Plane Trigonometry	3
GOVT 2301 U.S. and Texas Government	3
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	3
Major Requirements	31
DRAF 1401 Technical Drafting	4
DRAF 2401 Architectural Drafting	4
DRAF 2402 Machine Drafting	4
DRAF 2404 Piping Drafting	4
DRAF 2406 Structural Drafting	4
DRAF 2408 Computer Aided Drafting	4
DRAF 2418 Advanced Computer Aided Drafting	4
DRAF 2377 Cooperative Work Experience	3
Related Requirements	14
PETR 1300 Petroleum Overview	3
WELD 1401 General Welding	4
MACH 1401 Basic Machine Shop Fundamentals	4
OSHA 2395 Industrial Safety	3
Total Semester Hours	65

Certificates of Technology

Architectural Detailer

General Education Core	
ENGL 1301 Composition & Rhetoric or ENGL 1312 Report Writing	3
MATH 1314 College Algebra or MATH 1372 Technical College Algebra	3
Technical Core	
OSHA 2395 Industrial Safety	3
DRAF 1401 Technical Drafting	4
DRAF 2401 Architectural Drafting	4
DRAF 2406 Structural Drafting	4

DRAF 2408 Computer Aided Drafting 4
DRAF 2411 Advanced Architectural Drafting 4
DRAF 2418 Advanced Computer Aided Drafting 4

Total Semester Hours 33

Machine Drafting Detailer

General Education Core
ENGL 1301 Composition & Rhetoric
or ENGL 1312 Report Writing 3
MATH 1316 Plane Trigonometry 3

Technical Core
MACH 1401 Basic Machine Shop Fundamentals 4
DRAF 1401 Technical Drafting 4
DRAF 2402 Machine Drafting 4
DRAF 2403 Technical Illustration 4
DRAF 2408 Computer Aided Drafting 4
DRAF 2412 Advanced Machine Drafting 4
DRAF 2418 Advanced Computer Aided Drafting 4

Total Semester Hours 34

Structural Drafting Detailer

General Education Core
ENGL 1301 Composition & Rhetoric
or ENGL 1312 Report Writing 3
MATH 1316 Plane Trigonometry 3

Technical Core
WELD 1401 General Welding 4
OSHA 2395 Industrial Safety 3
DRAF 1401 Technical Drafting 4
DRAF 2406 Structural Drafting 4
DRAF 2408 Computer Aided Drafting 4
DRAF 2418 Advanced Computer Aided Drafting 4

Total Semester Hours 29

Pipe Drafting Detailer

General Education Core
ENGL 1312 Report Writing 3
MATH 1316 Plane Trigonometry 3

Technical Core
OSHA 2395 Industrial Safety 3
DRAF 1401 Technical Drafting 4
DRAF 2404 Pipe Drafting 4
DRAF 2408 Computer Aided Drafting 4
DRAF 2418 Advanced Computer Aided Drafting 4

Total Semester Hours 25

Drafting Technology Courses

DRAF 1401 Technical Drafting
(2-4) ..... 4 hour
Presents fundamental concepts, terminology, techniques and procedures of drafting for the technical student. Competencies include lettering, scale reading, geometric construction, sketching and shape description, multi-views and the interpretation of industrial sketches. Emphasizes skills development as well as theory. SCANS (1,3,8) Prerequisite: None.

DRAF 2377 Cooperative Work Experience
(1-20) ..... 3 hour
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

DRAF 2401 Architectural Drafting
(2-4) ..... 4 hour
Presents the fundamental concepts, terminology and procedures of residential architecture. Competencies include lettering, interpreting information, procedures and communication of written thoughts through cost estimation. (SCANS 1,2,3,8) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2402 Machine Drafting
(2-4) ..... 4 hour
Competencies include the skills needed to create engineering sketches, conventional practices, detail and assembly drawings and fasteners. Emphasis is placed on the use of common reference manuals to locate and interpret information, performing mathematical calculations, teamwork, drafting procedures and problem solving. (SCANS 1,3,5,8,9) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2403 Technical Illustration
(2-4) ..... 4 hour
Competencies include skills needed to produce pictorial drawings used in industrial catalogs, training aids, engineering designs, assembly sheets and promotional literature. Emphasis is placed on interpreting drawings, using appropriate procedures and problem solving. SCANS (1,8,9) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2404 Piping Drafting
(2-4) ..... 4 hour
Study of pipes and pipe fittings, symbols and specifications of process systems. Competencies emphasize the drawing of flow diagrams, pumps, compressors and various other mechanical equipment. Emphasis is placed on interpreting data from manuals, performing appropriate mathematical calculations, interpreting information, choosing appropriate procedures and problem solving. (SCANS 1,3,6,8,9) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2406 Structural Drafting
(2-4) ..... 4 hour
Competencies include the design and development of details and specifications for industrial structures. Emphasizes structural steel, pipe, reinforced concrete, interpreting technical data, appropriate mathematical calculations, information evaluation and problem solving. (SCANS 1,3,6,9) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2408 Computer-Aided Drafting
(2-4) ..... 4 hour
An introductory course; Competencies cover basic commands and functions utilized to produce drawings using the computer terminal, menu tablet, printer and/or plotter. Emphasizes learning and applying system functions to basic problems, interpreting instructions, problem solving, organizing drawing files and problem solving. (SCANS 1,3,8,9) Lab fee required. Prerequisite: DRAF 1401 or ENGR 1304.

DRAF 2411 Advanced Architectural Drafting
(2-4) ..... 4 hour
A continuation of DRAF 2401. Competencies include commercial and industrial construction. Emphasis is placed on interpreting information, appropriate mathematical calculations, communicating ideas, interpreting information, creative thinking and communication procedures. (SCANS 3,6,9,11) Lab fee required. Prerequisite: DRAF 2401.

DRAF 2412 Advanced Machine Drafting
(2-4) ..... 4 hour
A continuation of DRAF 2402. Competencies include a thorough study of position geometric dimensioning and tolerancing. Emphasizes interpretation of information, creating documents, performing mathematical calculation, working as a team, evaluating information, using correct procedures, and problem solving. (SCANS 2,3,5,6,8,9) Lab fee required. Prerequisite: DRAF 2402.

DRAF 2413 Advanced Technical Illustration
(2-4) ..... 4 hour
A continuation of DRAF 2403. Competencies include inking, shading, and airbrush rendering. Emphasizes the use of correct procedure, creative thinking and self management. (SCANS 8,9,10) Lab fee required. Prerequisite: DRAF 2403.

DRAF 2418 Advanced Computer-Aided Drafting
(2-4) ..... 4 hour
A continuation of DRAF 2408. Competencies include skills applied to advanced CAD drafting assignments by using more complex capabilities of the equipment to produce customized menus, libraries, reports and graphic presentations. The use of advanced editing techniques, report generation, drawing interchange files and configuration changes are also discussed and practiced. Emphasizes interpreting written material, information processing by the computer, applying CAD technology and problem solving. (SCANS 2,6,8,9) Lab fee required. Prerequisite: DRAF 2408.

Economics *(see Social Sciences)*

Education

Course of Study for Associate in Arts Degree

Education Majors

	Semester Hrs
General Education Requirements	**63**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	3
MATH 1314 College Algebra or	
MATH 1332 Structures of College Mathematics or	
higher level math	3
Any four hour laboratory science	4
**An additional college level math or laboratory science	3-4
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 United States History to 1877	3
HIST 1302 United States History from 1877	3

COSC 1301 Introduction to Computer Systems 3
PSYC 2308 Child Psychology 3
Any three hour fine arts course 3
*PHED (any two one-hour activity courses) 2

Elective (must be outside the major area) 3

Elementary Education

Electives (Should be selected from social science, natural science, mathematics, foreign languages, fine arts, and humanities) **18-17**

Secondary Education

Electives (Should be selected from freshman and sophomore courses which will count toward a specialized teaching field. This teaching field must be in a discipline which is taught in the secondary schools. Before elective courses are selected, education students are strongly encouraged to consult with the catalog of senior institution to which they intend to transfer) **18-17**

Total Semester Hours **63**

**PHED 1100 should be the first course taken in physical education.*
***These will meet the six to eight hours required in either Math or Science for an Associate of Arts Degree.*

Educational Aide

Faculty: Maryln Hair, chair; Mary Joyce Harding.

With increased need for individualized instruction of children beginning with preschool, school districts are hiring more educational aides. Other aides may be hired in the clerical and media area. The educational aide program provides training in basic educational skills, understanding of how children develop and learn and an understanding of how the school system operates in addition to reading, writing, bilingual and media skills. Emphasis will be placed on practical experience, human development, development of skills and the interpersonal relations needed for working with students and staff.

For students employed as educational aides, all lab activities and requirements can be met at their places of employment.

Student liability insurance is required for all educational aide and child development lab classes.

Course of Study for Associate in Applied Science Degree

Educational Aide

Semester Hrs

General Education Requirements **23-24**
ENGL 1301 Composition and Rhetoric 3
GOVT 2301 U.S. and Texas Government or
GOVT 2302 American National Government 3
MATH 1314 College Algebra or
MATH 1371 College Algebra for Business 3
COSC 1301 Introduction to Computer Systems 3
SPCH 1321 Business and Professional Speech or
SPCH 1315 Public Speaking 3
PHED 1306 First Aid 3

SOCI 2319 American Minorities 3
*PHED 1331 Movement and Recreation or
any two one-hour activity courses 2-3

Elective (must be outside the major area) 3

Major Requirements 42
EA 1300 School Procedure 3
EA 2300 Media 3
EA 2301 Teaching Skills 3
EA 2302 Special Child 3
EA 2303 Bilingual Teaching Skills 3
EA 2600 Application of Learning Theories 6
CHLD 1304 The Abused and Neglected Child 3
CHLD 1305 Creative Activities for Children or
CD 2305 Children's Language and Literature Development 3
CHLD 2306 Science and Math Activities for Children 3
CHLD 1307 Discipline and Classroom Management 3
CHLD 1310 Child Growth and Development from School Age through Adolescence or
PSYC 2308 Child Psychology 3
CHLD 2301 Personal and Family Management 3
CHLD 2304 The Special Child 3

Total Semester Hours 68-69

**PHED 1100 should be the first course taken in physical education.*

Educational Aide Courses

EA 1300 School Procedure
(3-0) ..... 3 hours
An orientation course covering school organization, procedures, general practices, individual instruction and staff utilization. Explores and emphasizes teacher's and assistant teacher's roles. (SCANS 5,7,10) Prerequisite: None.

EA 2300 Media
(2-3) ..... 3 hours
Introduces instructional media, including practical uses of the microcomputer used in public schools. Includes preparation and application of visual materials such as transparency processing, lettering and duplicating. Requires students to demonstrate competency in operating all audiovisual classroom equipment and microcomputers. (SCANS 8) Prerequisite: None.

EA 2301 Teaching Skills
(2-3) ..... 3 hours
Includes techniques of assisting the teacher in teaching-interest areas such as math, reading, reading readiness, phonics, science, writing and spelling. Components include individualized instruction and classroom management. (SCANS 1,2,3) Prerequisite: None.

EA 2302 Special Child
(2-3) ..... 3 hours
A continuation of CD 2304. Requires students to identify disability areas in which to concentrate studies. Studies conducted at lab site, primarily by individualized instruction. (SCANS 6,9) Prerequisite: CD 2304 or consent of the department chair.

EA 2303 Bilingual Teaching Skills
(2-3) ..... 3 hours
Includes strategies for instructing language arts skills (listening, speaking, reading and writing) in languages other than English and English as a second language. Includes cultural learning styles as well as descriptive characteristics of English and other languages. (SCANS 1,2,11) Prerequisite: EA 2301 or consent of the department chair.

EA 2600 Application of Learning Theories
(1-17) ..... 6 hours
Requires working with children under supervision of experienced teacher. Also requires evidence of teacher-aide competency in the areas of personal, interpersonal, and thinking skills, as well as competency in instructing reading, writing, and math. (SCANS 1,2,3,5,9,10) Lab fee required. Prerequisite: 24 hours of EA and CHLD, including EA 1300 and EA 2301, and/or consent of the department chair. Requires a grade of "C" or better for credit to be validated.

Electrical/Electronics Technology

Faculty: Danny Bailey, chair.

The electrical/electronics technology curriculum is designed to prepare individuals for technical careers in the industrial electrical field. Students may follow a plan leading toward an associate in applied science degree or follow a plan leading toward a certificate. Individuals currently employed in the field can increase or update their technical knowledge and skills by enrolling in specialized electrical/electronics courses (note prerequisites). While the overall program is broad based, some specialization is possible in motors, controls, and programmable controllers in electrical technology and communication and computer repair in electronics technology.

Course of Study for Associate in Applied Science Degree

Electrical Technology

	Semester Hrs
General Education Requirements	**20**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government	3
MATH 1372 Technical College Algebra or MATH 1314 College Algebra or MATH 1371 College Algebra for Business	3
PSYC 2302 Applied Psychology	3
*PHED (any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**

**PHED 1100 should be the first course taken in physical education.*

Technical Core	**16**
ELEC 2410 National Electrical Code	4
MAIN 1402 Plumbing	4
BLDG 2404 Structural Repair	4
HVAC 1401 Refrigeration Theory	4
Major Requirements	**26**
ELEC 1401 D.C. Circuits	4
ELEC 1404 Electronics I	4
ELEC 2302 Electrical Power Technology	3
ELEC 2400 Electronics II	4
ELEC 2404 Electrical Machinery and Controls	4

ELEC 2411 Programmable Logic Controllers 4
ELEC 2377 Cooperative Work Experience 3

Total Semester Hours 65

Credit for ELEC courses may be awarded by passing an advanced standing examination. Students with prior training or experience who wish to apply for advanced standing should contact the department chair.

Certificates in Electrical Technology

Electrical Technician

General Education Core
TMTH 1370 Technical College Mathematics
or higher math 3
PSYC 2302 Applied Psychology 3

Technical Core
ELEC 1401 DC Circuits 4
ELEC 2404 Electrical Machinery and Controls 4
ELEC 2410 National Electrical Code 4
Total Hours 18

Advanced Electrical Technician

General Education Core
TMTH 1370 Technical College Mathematics
or higher math 3
COSC 1301 Intro to Computer Systems 3
PSYC 2302 Applied Psychology 3

Technical Core
ELEC 1401 DC Circuits 4
ELEC 1404 Electronics I 4
ELEC 2205 Electronic Instruments 2
ELEC 2302 Electrical Power Technology 3
ELEC 2305 Electrical Business Operations 3
ELEC 2377 Cooperative Work Experience 3
(May be substituted with department chair's approval)
ELEC 2400 Electronics II 4
ELEC 2404 Electrical Machinery and Controls 4
ELEC 2410 National Electrical Code 4
ELEC 2411 Programmable Logic Controllers 4
Total Hours 44

Course of Study for Associate in Applied Science Degree

Electronics Technology

Semester Hrs

General Education Requirements 20
ENGL 1301 Composition and Rhetoric
or ENGL 1312 Report Writing 3
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech 3
COSC 1301 Introduction to Computer Systems 3
GOVT 2301 U.S. and Texas Government 3
MATH 1372 Technical College Algebra or
MATH 1314 College Algebra or
MATH 1371 College Algebra for Business 3
PSYC 2302 Applied Psychology 3

*PHED (any two one-hour activity courses) 2

Elective (must be outside the major area) **3**

**PHED 1100 should be the first course taken in physical education.*

Major Requirements **39**
- ELEC 1401 D.C. Circuits 4
- ELEC 1402 Computer Circuits I 4
- ELEC 1403 A.C. Circuits 4
- ELEC 1404 Electronics I 4
- ELEC 1408 Computer Circuits II 4
- ELEC 2400 Electronics II 4
- ELEC 2401 Two Way Radio 4
- ELEC 2408 Computer Circuits III 4
- ELEC 2414 Circuit Analysis 4
- ELEC 2377 Cooperative Work Experience 3

Related Requirements **4**
- DRAF 1401 Technical Drafting 4

Total Semester Hours **66**

Credit for ELEC courses may be awarded by passing an advanced standing examination. Students with prior training or experience who wish to apply for advanced standing should contact the department chair.

Certificates in Electronics Technology

Certificate for Electronics Technician

Semester Hrs

General Education Core
- TMTH 1370 Technical College Math
  or [redacted] Math 1372 Technical College Algebra 3

Technical Core
- ELEC 1401 D.C. Circuits 4
- ELEC 1402 Computer Circuits I 4
- ELEC 1403 A.C. Circuits 4
- ELEC 1404 Electronics I 4
- ELEC 1408 Computer Circuits II 4

Total Semester Hours **23**

Certificate for Advanced Electronics Technician

General Education Core
- TMTH 1370 Technical College Math
  or [redacted] Math 1372 Technical College Algebra 3
- COSC 1301 Intro to Computer Systems 3
- ENGL 1312 Report Writing 3

Technical Core
- ELEC 1401 DC Circuits 4
- ELEC 1402 Computer Circuits I 4
- ELEC 1403 A.C. Circuits 4
- ELEC 1404 Electronics I 4
- ELEC 1408 Computer Circuits II 4
- ELEC 2400 Electronics II 4
- ELEC 2401 Two Way Radio 4
- ELEC 2408 Computer Circuits III 4
- ELEC 2414 Circuit Analysis 4

Total Semester Hours **45**

Electronics Technology Courses

ELEC 1401 D. C. Circuits

(3-3) ..... 4 hours

Presents principles and applications of direct current circuitry. Includes Ohm's Law, series-parallel circuits, batteries, meters, conductors, insulators and basic circuitry. Emphasis is placed on solving practical electrical problems by choosing appropriate math techniques. The electronics lab will enable the student, along with a lab partner, to choose the materials, tools, equipment, and procedures necessary to identify, construct and troubleshoot basic circuitry. (SCANS 3,5,8,9) Lab fee required. Prerequisite: None.

ELEC 1402 Computer Circuits I

(3-3) ..... 4 hours

Presents principles and applications of logic circuitry basic to computers, telemetry and automation. Includes gates; counters; adders; I/O, D/A, and A/D converters; storage devices; binary, octal, BCD, and hexadecimal systems. Emphasis is placed on designing, identifying, and constructing logic circuitry. The electronics lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot digital circuitry. (SCANS 5,7,8,9) Lab fee required. Prerequisite: None.

ELEC 1403 A.C. Circuits

(3-3) ..... 4 hours

Presents principles and applications of alternating current circuitry. Includes basic formulas pertaining to induction, capacitance, reactance, impedance and resonance. Emphasis is placed on solving practical problems by choosing appropriate math techniques. The electronics lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot alternating current circuitry. (SCANS 3,5,8,9) Requires a scientific calculator. Lab fee required. Prerequisite: ELEC 1401 or consent of the department chair.

ELEC 1404 Electronics I

(3-3) ..... 4 hours

Presents the fundamentals of solid state devices. Includes basic devices such as diodes, bipolar transistors, and field effect transistors. Emphasis is placed on designing and troubleshooting solid state systems such as power supplies, amplifiers, regulators and linear integrated circuits. The electronics lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot solid state circuitry. (SCANS 5,7,8,9) Lab fee required. Prerequisite: ELEC 1401 or consent of the department chair.

ELEC 1408 Computer Circuits II

(3-3) ..... 4 hours

Presents terminology, principles and applications of microprocessors and associated peripheral circuitry such as EEPROMs, RAMs, and ROMs. Includes programming; machine and assembly languages; octal binary and hexadecimal systems. The student will construct a microprocessor trainer. By constructing a microprocessor trainer, the student is able, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot microprocessor systems. The student will also be able to identify design techniques used in microprocessor systems. (SCANS 3,7,8,9) Lab fee required. Prerequisite: ELEC 1402 or the consent of the department chair.

ELEC 2205 Electronic Instruments
(2-0) ..... 2 hours
Presents the principles in the operation of electronic instruments. Introduces methods used in instruments such as meters, oscilloscopes, power supplies, generators, counters, and controls. By interpreting schematics and technical catalogs, the student is able to identify circuitry used in electronic instruments. The student is also able to identify common problems and solve common problems in the instrumentation field. (SCANS 1,9) Prerequisite: ELEC 1404 or the consent of the department chair.

ELEC 2302 Electrical Power Technology
(3-0) ..... 3 hours
Presents methods and equipment for generation, transmission and distribution of electrical power. Emphasis is placed on the past, present, and future of electrical power technology including power consumption, power supplies, and alternative power supplies. The student is able to identify electrical power techniques by researching and presenting a written report on a related subject. (SCANS 6,10,11) Prerequisite: None.

ELEC 2305 Electrical/Electronics Business Operations
(3-0) ..... 3 hours
Introduces basic understanding of setting up and operating a small business. By designing a small business and preparing a budget for that business, the student is able to identify: types of ownership, types of loans, accounting techniques, marketing techniques, cash flow, legal aspects, material control, and equipment control. (SCANS 3,4,6,7,9,10) Prerequisite: None.

ELEC 2377 Cooperative Work Experience
(1-20) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

ELEC 2400 Electronics II
(3-3) ..... 4 hours
A continuation of ELEC 1404. Includes devices such as operational amplifiers, oscillators, multivibrators, UJTs, SCRs, Diacs, Triacs, varactors and RF amplifiers. Emphasis is placed on designing and troubleshooting solid state systems such as oscillators, filters, solid state motor controls, and comparators. The electronics lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct, and troubleshoot solid state circuitry. (SCANS 5,7,8,9) Lab fee required. Prerequisite: ELEC 1404 or consent of the department chair.

ELEC 2401 Two-way Radio
(3-3) ..... 4 hours
Presents principles of amplitude and frequency modulation, antennas and RF detection. Includes single sideband, automatic frequency and gain devices, as well as noise suppression, RF frequency, power measurements and adjustments. Emphasis is placed on services and troubleshooting communication equipment such as two-way radios. The electronics lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot communication systems. (SCANS 5,7,8,9) Lab fee required. Prerequisite: ELEC 2400 or consent of the department chair.

ELEC 2404 Electrical Machinery and Controls
(3-3) ..... 4 hours
Presents principles, applications and peripherals of control circuitry. Includes electrical motors transformers, relays, contactors, starters, and ladder logic. Emphasis is placed on designing, constructing, and troubleshooting motor control systems. The electrical lab will enable the student, along with a lab partner, to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot electrical control circuitry. (SCANS 5,8,9) Lab fee required. Prerequisite: None.

ELEC 2408 Computer Circuits III
(3-3) ..... 4 hours
Presents terminology and principles of computer repair. Includes topics on operating systems, bus structures, disk drives, monitors, modems, and printers. The computer lab will enable the student to choose the procedure and equipment necessary to troubleshoot and repair modern computers and their peripheral devices. (SCANS 5,8,9) Lab fee required. Prerequisite: ELEC 1408.

ELEC 2410 National Electrical Code
(3-3) ..... 4 hours
Presents applications of the National Electrical code for industrial, commercial, and residential wiring. Emphasis is placed on designing, constructing, and troubleshooting electrical systems. The electrical lab will enable the student, along with a lab partner to choose the material, tools, equipment, and procedures necessary to identify, construct and troubleshoot electrical circuitry. (SCANS 5,8,9) Lab fee required. Prerequisite: None.

ELEC 2411 Programmable Logic Controllers
(3-3) ..... 4 hours
Introduces the use of programmable controllers and their related industrial and commercial uses. Emphasis is placed on methods and techniques used in programming control circuits. Students will learn programming techniques by using the latest models of programmable controllers. The electrical lab will enable the student, along with a lab partner, to design and program ladder logic circuitry using devices such as shift registers, counters, sequences and timers. (SCANS 5,8,9) Lab fee required. Prerequisite: ELEC 2404 or consent of the department chair.

ELEC 2414 Circuit Analysis
(4-0) ..... 4 hours
Introduces students to computer analysis of electronic circuits. PSPICE, GENESIS, and other computer software will be used. Emphasis is placed on student designing and evaluating analog circuitry with the computer. The lab will enable students to write programs for diagnosis. The student will design and analyze resistive, reactive, transistor, and other circuits. (SCANS 2,6,7,8,9) Lab fee required. Prerequisite: ELEC 1403 and ELEC 1404 or consent of the department chair.

Emergency Medical Technology

Faculty: Lee Don Martin, chair; Phyllis Howard, Dr. Weldon Butler, medical director.

Odessa College offers a cooperative program with a local hospital and an ambulance service designed to provide understanding, proficiency and skill in emergency medical care and transportation of the sick and injured.

The curriculum is primarily designed for ambulance personnel, safety engineers, rescue squad workers, policemen, firemen, employees of public or private health agencies, and civil defense workers. Completion of the courses will qualify the individual to write the examination for registry with the Texas Department of Health, Emergency Medical Services Division.

Objectives are to include all techniques of emergency medical care presently considered within the responsibilities of the emergency medical technician, as well as the operational aspects of the job in which he is expected to perform. Specific contents of the courses are based on guidelines from the Texas Department of Health, Division of Emergency Medical Services, and the U.S. Department of Transportation. The training includes both theoretical and practical applications of emergency medical care.

Enrollment in EMED 2801 and EMED 2802 is limited, and students are urged to contact the department chair early to ensure acceptance to the program. Applicants or those seeking additional information should contact the emergency medical technology director or counseling center.

Enrollment in EMED 1301, 2401, 2801 and 2802 requires student liability insurance.

Course of Study for Associate in Applied Science Degree

Emergency Medical Technology

First Year

First Semester

	Semester Hrs
BIOL 1170 Medical Terminology	1
BIOL 2401 Anatomy and Physiology I	4
ENGL 1301 Composition and Rhetoric	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
MATH 1332 Structures of College Mathematics or higher level math	3
*PHED [redacted] One-hour activity course	1

Second Semester

BIOL 2402 Anatomy and Physiology II	4
EMED 1301 Clinical Practicum	3
EMED 1501 Emergency Care of Sick and Injured	5
ENGL 1302 Composition and Literature	3
PHED One-hour activity course	1

First Summer Session

EMED 2201 Basic Electrocardiography and Introduction to Emergency Pharmacology	2

Second Year

Third Semester

COSC 1301 Introduction to Computer Science	3
EMED 2801 Advanced Emergency Care of Sick and Injured	8
NURS 1201 Pharmacology	2
Elective	3-4

Fourth Semester

EMED 2802 Advanced Emergency Care of Sick and Injured	8
PSYC 2301 Introduction to Psychology	3
SPCH 1321 Business and Professional Speech	3

Total Semester Hours **63-64**

Course of Study for Certificate of Completion

Basic Emergency Medical Technician

First Semester
- EMED 1301 Clinical Practicum 3
- EMED 1501 Emergency Care of Sick and Injured 5
- *PHED One-hour activity course 1

Second Semester
- SPCH 1321 Business and Professional Speech 3
- COSC 1301 Introduction to Computer Science 3

Total Semester Hours 15

Intermediate Emergency Medical Technician

First Semester
- EMED 1301 Clinical Practicum 3
- EMED 1501 Emergency Care of Sick and Injured 5
- SPCH 1321 Business and Professional Speech 3

Second Semester
- EMED 2401 Intermediate Practicum 4
- EMED 2601 Intermediate Care of the Sick and Injured 6
- COSC 1301 Introduction to Computer Science 3
- *PHED One-hour activity course 1

Total Semester Hours 25

Advanced Emergency Medical Technician

First Semester
- EMED 1301 Clinical Practicum 3
- EMED 1501 Emergency Care of Sick and Injured 5

Second Semester
- SPCH 1321 Business and Professional Speech 3
- COSC 1301 Introduction to Computer Science 3
- *PHED One-hour activity course 1
- EMED 2201 Basic Electrocardiography and Introduction to Emergency Pharmacology 2

Third Semester
- EMED 2801 Advanced Emergency Care of the Sick or Injured 8
- EMED 2802 Advanced Emergency Care of the Sick or Injured 8

Total Semester Hours 33

**PHED 1100 should be the first course taken in physical education.*

Emergency Medical Technology Course

EMED 1301 Clinical Practicum

(0-9) ..... 3 hours

Introduction to emergency patient care. Designed to complement EMED 1501 and required of students wishing to write the exam, for emergency medical technician. Includes students writing and interpreting patient records and relevant reports. Students learn to prioritize care, participate as part of the ambulance and hospital team, and perform skills to their level of knowledge and ability. Students will be exposed to the pre-hospital setting and hospital setting, and learn how to apply and use their knowledge and skills. The student will be responsible for achieving their EMED clinical goals and learn to communicate with instructors, hospital, and ambulance staff and patients. (SCANS 1,2,4,5,8,9,10,11) Corequisite: 18 years of age, EMED 1501.

EMED 1501 Emergency Care of the Sick and Injured
(4-4) ..... 5 hours
Introduction to roles and responsibilities of the emergency medical technician by presenting terminology, concepts and techniques of pre-hospital patient care. Students learn to prioritize emergency care, medical-legal aspects, functional anatomy, cardiac and pulmonary problems, wounds and fractures, medical and environmental emergencies, extrication, rescue and ambulance operations. Students will function as part of the pre-hospital team and learn how to control an emergency and apply their new knowledge and skills and achieve the goal of communicating with medical personnel and patients. Prepares student to write the basic EMED state certification. Students must complete EMED 1201 as corequisite: Lab fee required. State certification fee required. (SCANS 1,2,4,5,7,8,9,10) Prerequisite: Must be 18 years of age.

EMED 2200 Emergency Medical Review
(2-0) ..... 2 hours
Presents periodic review of terminology, concepts and techniques needed to meet the continuing education needs of the EMT. Students learn methods of prioritizing tasks and skills as well as improved communication skills as well as the latest techniques and theories of emergency medicine. Lab fee required. (SCANS 1,2,4,8,9,11) Prerequisite: Basic EMT Certification.

EMED 2201 Basic Electrocardiography and Introduction to Emergency Pharmacology
(4-0) [6 weeks] ..... 2 hours
Presents terminology, concepts and techniques needed to begin a study of paramedic level training. Covers cardiac fundamentals, cardiac monitoring and basic concepts of the electrical system of the heart. Presents emergency cardiac pharmacology concepts to students. Requires ability to perform basic drug calculations. (SCANS 1,3,6,9) *This course will be a prerequisite to EMED 2801 starting in the fall 1995 semester.

EMED 2400 Advanced Paramedic Review
(4-0) ..... 4 hours
Presents students with terminology, concepts, new technology of emergency medicine and team approach concepts. Allows students to learn new techniques and skills. (SCANS 1,2,5,8,9) Prerequisite: Current EMT-Paramedic Certification.

EMED 2401 Intermediate Practicum
(0-10) ..... 4 hours
Designed to complement EMED 2604. Presents clinical opportunities for the student to meet the competencies required on an EMT-I. Students work in various hospital departments and on an MICU ambulance, where they provide patient care. Students must be able to communicate with multiple agencies, have leadership qualities, be able to perform treatments. Students must be professional, and have high medical ethic standards. (SCANS 1,2,5,8,9,10,11) Corequisite: EMED 2601.

EMED 2601 Intermediate Care of the Sick and Injured
(4-2) ..... 6 hours
Students will be introduced to intermediate level of emergency care of sick and injured patients. Students must be able to communicate with a medical director, medical facilities and mobile intensive care ambulance units. Students must be able to perform at a higher level than the EMT by mastering the intermediate skills of advanced airway procedures, IV therapy, advanced patient assessment and MAST pants therapy. Students must understand the anatomy and physiology in greater depth, and learn to assess patients to a higher degree who may require the advanced emergency care. Critical workplace competencies include leadership, decision making ability, team work with various other agencies. Personal qualities must include responsibility, sociability, self-motivation, self-management and good medical ethics to ensure safe and efficient patient care. Lab fee required. (SCANS 1,2,3,4,5,7,8,9,11) Prerequisites: Current Texas EMT certification, and be 18 years of age. Corequisite: EMED 2401.

EMED 2801 Advanced Emergency Care of the Sick or Injured
(4-12) ..... 8 hours
Presents terminology, concepts, and techniques needed to care for the acutely ill. Students learn to read, write and interpret data and learn basic drug calculations, as well as learn to prioritize time and tasks and enhance their interpersonal team communications. Students learn advance skill techniques, and how to become part of the ambulance and hospital systems. Lab fee required. (SCANS 1,2,3,4,5,7,8,9,11) Prerequisite: EMED 2201 and EMT Certification and consent of the department chair.

EMED 2802 Advanced Emergency Care of the Sick or Injured
(4-12) ..... 8 hours
A continuation of EMED 2801 which emphasizes advanced emergency care of the acutely ill. Students will learn to read, write and interpret medical data concerning basic electrocardiology, obstetrics, pediatrics, rescue techniques, communication and management of emotionally disturbed. Students will be part of the ambulance and hospital teams and will be responsible for total patient care decisions. Students will learn independent thinking and decision-making techniques. At the completion of the course, students may take the EMT-Paramedic state certification examination. Lab fee required. State exam fee required. (SCANS 1,2,3,5,8,9,10,11) Prerequisite: EMED 2801 and consent of the department chair.

Engineering

Faculty: George Brewer, chair; Delmos Hickmott, Robert Keating.

The curriculum in engineering has been designed for those students who wish to prepare for professional engineering degrees. Students should be aware of specific requirements of the college or university to which they may ultimately transfer. The program below is a suggested one and may be modified to conform to requirements of the students' chosen transfer institution.

Course of Study for Pre-Engineering

	Semester Hrs
General Education Requirements	**34**
ENGL 1301 Composition and Rhetoric	3
SPCH 1321 Business and Professional Speech	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
MATH 1348 Analytic Geometry	3
MATH 2313 Calculus I	3
PHYS 2425 Engineering Physics I	4
PHYS 2426 Engineering Physics II	4
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**21**
ENGR 1370 Engineering Analysis	3
ENGR 1304 Engineering Drawing	3
ENGR 2301 Mechanics I	3
ENGR 2302 Mechanics II	3
MATH 2314 Calculus II	3
MATH 2315 Calculus III	3
MATH 2320 Differential Equations	3

Related Requirements 12
- CHEM 1111 Fundamentals of Chemistry Lab I 1
- CHEM 1311 General Inorganic Chemistry I 3
- CHEM 1112 Fundamentals of Chemistry Lab II 1
- CHEM 1312 General Inorganic Chemistry II 3
- COSC 1415 Introduction to Computer Science 3

Total Semester Hours 70

**PHED 1100 should be the first course taken in physical education.*
Chemical engineering majors should take Chemistry 2323, 2123, 2125 and 2325.
It is recommended that all engineering majors take MATH 2318 (Linear Algebra) if time permits.

Students pursuing engineering as a career who desire an associate degree are advised to follow the curriculum for an associate in science degree.

Engineering Courses

ENGR 1304 Engineering Drawing (ENGR 1301)
(2-4) ..... 3 hours
Presents care and use of drawing instruments, free-hand lettering, geometric construction, general drafting principles, multiview projection, revolutions and sections. Includes isometric and cabinet projection, threads, bolts, rivets, helices, dimensioning, principles of working drawings, oblique drawing and fundamentals of computer graphics. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing and planning actions necessary to solve problems. Students will further develop and/or discover mathematical relationships and acquire skills in gathering, organizing and evaluating information. (SCANS 3,6,9) Prerequisite: None.

ENGR 1370 Engineering Analysis (ENGR 1300)
(3-0) ..... 3 hours
Introduces the profession of engineering. Presents an overview of various disciplines within the engineering field. Includes methods of analyzing and solving engineering problems. Includes an introduction to FORTRAN. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing and planning actions necessary to solve problems. Students will further develop and/or discover mathematical relationships and acquire skills in gathering, organizing and evaluating information. (SCANS 3,6,9) Lab fee required. Prerequisite: None; however, algebra, trigonometry and physics backgrounds are recommended.

ENGR 1305 Descriptive Geometry (ENGR 1303)
(2-4) ..... 3 hours
Introduces principles of descriptive geometry, auxiliary views, developments, intersections, double-curved and warped surfaces, point, line and plane problems, and their applications to problems of engineering and architecture. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing and planning actions necessary to solve problems. Students will further develop and/or discover mathematical relationships and acquire skills in gathering, organizing and evaluating information. (SCANS 3,6,9) Prerequisite: ENGR 1304 or DT 1401.

ENGR 2301 Mechanics I (ENGR 2303)
(3-0) ..... 3 hours
A basic mechanics course utilizing vectors and tensors. Introduces statics, including concepts of free-body diagrams, friction forces and virtual-work as well as motion of particles, including momenta, energy and work concepts. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing and planning actions necessary to solve problems. Students will further develop and/or discover mathematical relationships and acquire skills in gathering, organizing and evaluating information. (SCANS 3,6,9) Prerequisite or corequisite: MATH 2314.

ENGR 2302 Mechanics II (ENGR 2304)
(3-0) ..... 3 hours
Dynamics of particles, including harmonic motion, motion of a particle in a central force field, momentum and work methods, theory of rigid body motion, work and energy methods, and relative motion in rigid bodies. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing and planning actions necessary to solve problems. Students will further develop and/or discover mathematical relationships and acquire skills in gathering, organizing and evaluating information. (SCANS 3,6,9) Prerequisite: ENGR 2301.

English and Foreign Languages

Faculty: Imogene Pilcher, chair; Dr. Joe C. Buice (ret.), Dr. Judith Cornes, Dr. Elizabeth Gillette (ret.), Dr. Aija Hoover, Larry Hoover, Wayne Johnson, Mark Jordan, Ulrike Kalt, Dr. Daryl Lane, Ned Pilcher, Ivan Reyez, Donna Smith, Dr. Michael White, Lynn Whitson, Stanley Williams.

Language defines us as human; without language we would never have evolved from a mere animal-like existence. Not only is language the means by which we communicate with others and thus create societies and culture, it also is the sole means we have of shaping and controlling our thought. Indeed, without language, we would have no science, no religion, no technology, no civilization. Abilities to communicate and think with precision and flexibility are more than just useful skills; they are fundamental to our survival and to our progress as humankind.

Further, without the power to read intelligently, we would be spiritually diminished; the full richness of our cultural heritage would be inaccessible to us. In great literature, civilizations have recorded not only their exploits, but also psychological and cultural truths that unfold in archetype and myth. Literature is both the magnifying glass and the mirror through which we learn of others' cultural experiences and see our own more clearly.

Students in literature and languages study the structure, the resources, the nuances of languages, and they read many of the world's literary masterpieces. They pursue the skills necessary for clear, effective, forceful communication and intelligent, perceptive, analytical reading.

The Tutorial Lab

The Writing Lab is located in the Electronics Technology Building, Room 120. An additional writing Word Processing Lab is located in Wilkerson Hall, Room 206. These labs offer supplemental, individual instruction in grammar, spelling, composition and techniques of research to any student who needs improvement in writing ability or skill in literary analysis. Assistance is provided to both walk-in students and students referred by any instructor. All assistance is free of charge.

Course of Study for Associate in Arts Degree

English Major

	Semester Hrs
General Education Requirements	**31**
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
**MATH 1314 College Algebra or	
MATH 1332 Structures of College Mathematics I	3

**MATH 1316 Plane Trigonometry or
MATH 1333 Structures of College Mathematics II or
MATH 1342 Mathematical Statistics 3
*PHED (Any two one-hour activity courses) 2
Science (Two sequential laboratory courses) 8
SPCH 1315 Public Speaking 3

Elective (must be outside the major area) **3**

Major Requirements **26**
ENGL 1301 Composition and Rhetoric 3
ENGL 1302 Composition and Literature 3
ENGL 2322 Survey of British Literature I 3
ENGL 2323 Survey of British Literature II 3
Foreign Language (French, German or Spanish 1411 and 1412) 8
Foreign Language (Sophomore Level) 6

Approved Electives **6**

Total Semester Hours **66**

**PHED 1100 should be the first course taken in physical education.*
Students who have some knowledge of a foreign language are advised to consider the advanced standing examination program for credit by examination.

*** Students should check math requirement of designated senior institution.*

English Courses

ENGL 0171 Sentence Structure (ENGL 1101)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes techniques for creating concise and effective sentence structures. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9). Lab fee required. Prerequisite: Consent of the instructor.

ENGL 0172 Focus and Unity (ENGL 1102)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes recognition of purpose and audience and techniques of maintaining unity in a piece of writing as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9). Lab fee required. Prerequisite: Consent of the instructor.

ENGL 0173 Organization and Development (ENGL 1103)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes paragraph organization, cohesion and sequencing of ideas as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9). Lab fee required. Prerequisite: Consent of the instructor.

ENGL 0174 Usage (ENGL 1104)
(0-1) ..... 1 hour
A compensatory self-paced lab course designed to improve basic thinking and writing skills. Emphasizes recognition and incorporation of standard usage in sentence composition, focusing on verb and pronoun usage, standard punctuation, modifier usage, plural and possessive conventions, and precise and appropriate word choice as well as composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 2,9). Lab fee required. Prerequisite: Consent of the instructor.

ENGL 0370 Basic English (ENGL 1300)
(3-0) ..... 3 hours
A compensatory course designed to improve basic thinking and writing skills. Emphasizes essay development and use of conventional English. Requires essays composed in response to various prompts. Prepares student for ENGL 1301. Credit probably not transferable. This course does not satisfy requirements for any degree plan at Odessa College. The student must attain a "C" or better before enrolling in ENGL 1301. (SCANS 2,9). Lab fee required for ENGL 0370 WP (Word Processing). Prerequisite: None. Corequisite: Students who have not taken and passed the reading section of TASP must enroll in a reading class.

ENGL 1301 Composition and Rhetoric (ENGL 1311)
(3-0) ..... 3 hours
Consists of essentials of correctness and effectiveness in writing skills. Emphasizes reading and writing expository prose. Requires expository essays and collateral readings. (SCANS 1,2,9). Lab fee required for ENGL 1301 (Word Processing). Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

ENGL 1302 Composition and Literature (ENGL 1312)
(3-0) ..... 3 hours
Consists of reading and analyzing selected works from the principle genres of literature and introduces research techniques. Requires analytical papers on literature, research exercises, supplemental readings and examinations. (SCANS 1,2,9). Prerequisite: ENGL 1301.

ENGL 1309 Advanced Composition and Rhetoric (ENGL 2305)
(3-0) ..... 3 hours
An advanced course in English composition for students who want to polish their writing skills and to gain experience with a wide variety of expository methods. Requires writing clear, thoughtful prose with substantial content. Also requires at least one longer paper and some research. (SCANS 2,9). Prerequisite: ENGL 1301.

ENGL 1312 Report Writing (ENGL 1321)
(3-0) ..... 3 hours
Consists of reading and writing directions, proposals, abstracts, summaries, letters and other report forms commonly used in business and industry. Gives attention to style, paragraphing, organization, mechanics, and usage as they apply to technical writing. Students should check with senior college regarding course transferability. (SCANS 2). Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

ENGL 2307 Creative Writing (ENGL 2340)
(3-0) ..... 3 hours
Introduces the study and writing of fiction and poetry. Presents contemporary writers, market analysis and preparation and submission of manuscripts for publication. An elective course that will not substitute for any required English course in any associate degree program. May be repeated for credit. Will transfer, perhaps, in selected majors at senior institutions. (SCANS 2,9). Prerequisite: ENGL 1302 or consent of the instructor.

ENGL 2311 Technical and Report Writing (ENGL 2330; 2314)
(3-0) ..... 3 hours
Consists of reading and writing technical documents used in business and industry. Offers practical experience in the use of technical terms and in the processes of collection, interpretation, organization, and textual presentation of data. Students should check with universities regarding course transferability. (SCANS 2,6,9). Prerequisite: ENGL 1302.

ENGL 2322 Survey of British Literature I (ENGL 2350)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of British literature from the Old English period through the Neoclassical period. Requires research paper or several short analytical papers. Required of all English majors. (SCANS 1,2,9). Prerequisite: ENGL 1302.

ENGL 2323 Survey of British Literature II (ENGL 2360)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of British literature from the Romantic period to the present day. Requires research paper or several short analytical papers. Required of all English majors. (SCANS 1,2,9). Prerequisite: ENGL 1302.

ENGL 2327 Survey of American Literature I (ENGL 2380)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of American literature from the Colonial period through the Romantic period. Requires research paper or several short analytical papers. (SCANS 1,2,9). Prerequisite: ENGL 1302.

ENGL 2328 Survey of American Literature II (ENGL 2390)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of American literature from the Realistic period to the present day. Requires research paper or several short analytical papers. (SCANS 1,2,9). Prerequisite: ENGL 1302.

ENGL 2332 Survey of World Literature I (ENGL 2310)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of literature of the western world from the Classical period through the Renaissance. Requires research paper or several short analytical papers. (SCANS 1,2,9). Prerequisite: ENGL 1302.

ENGL 2333 Survey of World Literature II (ENGL 2320)
(3-0) ..... 3 hours
Consists of reading and analyzing significant works of literature of the western world from the Neoclassical period through the present day. Requires research paper or several short analytical papers. (SCANS 1,2,9). Prerequisite: ENGL 1302.

Options

Students who enroll in ENGL 0370-Word Processing or ENGL 1301-Word Processing and who lack keyboarding skills should also enroll in OE 1100 Basic Keyboarding Skills, a one-hour, four-week course that develops touch-method skills on the alpha-numeric keyboard.

Students have two alternatives to regular ENGL 1302 courses listed above. The first is ENGL 1302-Film, which substitutes movies for written literature. The second is ENGL 1302-Science Fiction, which is based on science fiction and fantasy novels, stories and movies.

On the sophomore level, the department offers an alternate method for completing ENGL 2327 and ENGL 2328. In addition to the regularly scheduled three-hour per week sections of each class, a special six-hour time block is set aside each semester so that students can complete both courses in a single semester. During the first half of the semester, students complete ENGL 2327. At this point, they may or may not choose to continue with ENGL 2328, which will be completed in the second half of the semester.

Foreign Languages

Most four-year colleges and universities require one or two years of a foreign language for a bachelor's degree in arts and sciences. The foreign language program at Odessa College can satisfy the needs of most students whose prospective major requires a foreign language. Students should consult carefully the catalog of the senior college or university they plan to attend.

Many students who major in foreign languages become language teachers. Others use their foreign language capabilities in law, business, sales, foreign service, travel for professional reasons or for pleasure, politics, social work, elementary education and sociability. For still other students, their language skill becomes a springboard to more alert citizenship through increased understanding of and interest in the world at large.

In the classroom, concentration is on the immediate and practical. The courses consist of vocabulary and drills most needed for communication, with ample opportunity for students to practice speaking the language. With the aid of well-equipped labs and teachers well qualified to teach the spoken language, students are expected to be able to speak, read and write the language by the time they have completed their second year of study. From the first day, class is carried on primarily in the language being studied.

Course of Study for Associate in Arts Degree

Foreign Language Major

	Semester Hrs
General Education Requirements	**43**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1314 College Algebra	3
MATH 1316 Plane Trigonometry or MATH 1342 Mathematical Statistics	3
*PHED (Any two one-hour activity courses)	2
Science (Two sequential laboratory courses)	8
SPCH 1315 Public Speaking	3
Elective (must be outside the major area)	**3**
Major Requirements	**22**
Foreign Language 1411 and 1412	8
Foreign Language 1411 and 1412 (2nd language)	8
Foreign Language (Sophomore Level)	6
Approved Elective	**3**
Total Semester Hours	**71**

**PHED 1100 should be the first course taken in physical education.*

Students who have some knowledge of a foreign language are advised to consider the advanced standing examination program for credit by examination.

French

FREN 1411 First Year French I (FR 1411)
(3-2) ..... 4 hours
A basic course conducted in French for students with no previous experience in French. Emphasizes simple conversation: pronunciation, fluency and vocabulary. Also presents basic grammar and composition. May require up to two hours per week of individual practice in the language lab. Individual help available as needed. (SCANS 2,9). Lab fee required. Prerequisite: None.

FREN 1412 First Year French II (FR 1412)
(3-2) ..... 4 hours
A continuation of FREN 1411. Has same purposes and uses same techniques. (SCANS 2,9). Lab fee required. Prerequisite: FREN 1411 or its equivalent.

FREN 2311 Second Year French I (FR 2311)
(3-0) ..... 3 hours
A continuation of FREN 1411 and FREN 1412. Conducted in French. Emphasizes conversation based on reading assignments. Includes grammar and composition. Individual help available. (SCANS 2,9). Prerequisite: FREN 1412 or its equivalent.

FREN 2312 Second Year French II (FR 2312)
(3-0) ..... 3 hours
A continuation of FREN 2311. Has same purposes and uses same techniques. (SCANS 2,9). Prerequisite: FREN 2311 or its equivalent.

German

GERM 1411 First Year German I (GERM 1411)
(3-2) ..... 4 hours
A basic course conducted in German for students without previous experience in the German language. Emphasizes simple conversation: pronunciation, fluency and vocabulary. Presents basic grammar and composition. May require up to two hours per week of individual practice in the language lab. Individual help available. (SCANS 2,9). Lab fee required. Prerequisite: None.

GERM 1412 First Year German II (GERM 1412)
(3-2) ..... 4 hours
A continuation of GERM 1411. Has same purposes and uses same techniques. Lab fee required. (SCANS 2,9). Prerequisite: GERM 1411 or its equivalent.

GERM 2311 Second Year German I (GERM 2311)
(3-0) ..... 3 hours
A sequential continuation of GERM 1411 and 1412. Conducted in German. Emphasizes conversation based on reading assignments. Includes grammar and composition. Many course elements self-paced. Individual help available. (SCANS 2,9). Prerequisite: GERM 1412 or its equivalent.

GERM 2312 Second Year German II (GERM 2312)
(3-0) ..... 3 hours
A continuation of GERM 2311. Has same purposes and uses same techniques. (SCANS 2,9). Prerequisite: GERM 2311 or its equivalent.

Latin

LATI 1411 First Year Latin I (LAT 1411)
(3-2) ..... 4 hours
An introductory study of Latin for those students with little or no previous knowledge of the language. Includes grammar, syntax and vocabulary with the aim of achieving a reading knowledge of the language. Requires selected readings from Roman authors. (SCANS 2,9). Lab fee required. Prerequisite: None.

LATI 1412 First Year Latin II (LAT 1412)
(3-2) ..... 4 hours
A continuation of LATI 1411. Has same purposes and techniques, but goes further with vocabulary building and more advanced readings. (SCANS 2,9). Lab fee required. Prerequisite: LATI 1411 or its equivalent and consent of the instructor.

Spanish

SPAN 1300 Conversational Spanish I (SPAN 1311)
(3-0) ..... 3 hours
Conducted in basic, everyday conversation in simple social contexts. Introduces sound sentence structure but emphasizes basic vocabulary, idiomatic expressions and daily speech. (SCANS 2,9). Prerequisite: None.

SPAN 1310 Conversational Spanish II (SPAN 1312, 1301)
(3-0) ..... 3 hours
A continuation of SPAN 1300. Increases conversational ability and structural knowledge of Spanish. (SCANS 2,9). Prerequisite: SPAN 1300, its equivalent or consent of the instructor.

SPAN 1370 Intensive Spanish Practicum (SPAN 1320)
(8-16)[2 weeks] ..... 3 hours
A two-week course of intensive verbal practice in Spanish. Consists of six hours of classes daily with side trips to cultural points of interest. Students will live with local families who speak little or no English. Cost includes round-trip airfare, room and board, institutional tuition and books. Odessa College fees not included. No previous knowledge of Spanish required. Students should check with senior college regarding course transferability. (SCANS 2,9). Prerequisite: None.

SPAN 1371 Spanish for Native Speakers of Spanish I (SPAN 1321)
(3-0) ..... 3 hours
Gives special attention to pronunciation, writing, reading and usage for students whose native language is Spanish. Emphasizes structure of the language, generating basic sentence patterns and reading and analyzing brief passages of prose. (SCANS 2,9). Prerequisite: None.

SPAN 1372 Spanish for Native Speakers of Spanish II (SPAN 1322)
(3-0) ..... 3 hours
A continuation of SPAN 1371. Examines structure of the language and uses advanced material for reading and writing. (SCANS 2,9). Prerequisite: SPAN 1371 or consent of the instructor.

SPAN 1411 First Year Spanish I (SPAN 1411)
(3-2) ..... 4 hours
A basic course conducted in Spanish for students without previous experience in Spanish. Emphasizes simple conversation: pronunciation, fluency and vocabulary. Presents basic grammar and composition. May require up to two hours per week of individual practice in the language lab. Individual help available. Many course elements self-paced. (SCANS 2,9). Lab fee required. Prerequisite: None.

SPAN 1412 First Year Spanish II (SPAN 1412)
(3-2) ..... 4 hours
A continuation of SPAN 1411. (SCANS 2,9). Lab fee required. Prerequisite: SPAN 1411 or its equivalent.

SPAN 2311 Second Year Spanish I (SPAN 2311)
(3-0) ..... 3 hours
Conducted in Spanish, a continuation of SPAN 1411 and SPAN 1412. Emphasizes conversation based on reading assignments. Includes grammar and composition. Many elements self-paced. (SCANS 2,9). Prerequisite: SPAN 1412 or its equivalent.

SPAN 2312 Second Year Spanish II (SPAN 2312)
(3-0) ..... 3 hours
A continuation of SPAN 2311. (SCANS 2,9). Prerequisite: SPAN 2311 or its equivalent.

SPAN 2321 Spanish Literature I (SPAN 2341)
(3-0) ..... 3 hours
A survey course in Spanish and Latin American literature and culture. Includes reading of short prose and poetry selections for students new to Spanish literature. Includes conversation, writing and grammar review. (SCANS 2,9). Prerequisite: SPAN 2312, its equivalent or consent of the instructor.

SPAN 2322 Spanish Literature II (SPAN 2342)
(3-0) ..... 3 hours
A continuation of SPAN 2321. Conducted in Spanish. Includes a further study of Spanish and Latin American literature and culture, along with conversation, writing and grammar review. (SCANS 2,9). Prerequisite: SPAN 2312, its equivalent or consent of the instructor.

Fire Technology

Faculty: Jack Culberson, chair.

The Fire Technology Program assists in the development of meaningful educational experiences for pre-service and in-service fire fighters. The program emphasizes the principles of fire protection, fire prevention and fire suppression.

Courses stress practical application in understanding building designs, classification of fires, exposure protection, toxic fumes, arson investigation, hazardous materials, fire fighting techniques and standards. The course surveys fire administration with special interest in recruiting, organization, budget, legal aspects, employee effectiveness, evaluation and related problems. The program is planned to develop specific abilities and knowledge for entry-level employment and to provide the necessary educational background for advancing into a highly responsible position in the profession.

All courses are structured to coincide with the requirements set forth by the State Commission on Fire Protection and the State Firemen's and Fire Marshals' Association.

Course of Study for Associate in Applied Science Degree

Fire Technology

	Semester Hrs
General Education Requirements	**15**
ENGL 1301 Composition and Rhetoric	
or ENGL 1312 Report Writing	3
ENGL 1302 Composition and Literature	3
GOVT 2301 U.S. and Texas Government	3
MATH 1372 Technical College Algebra or	
MATH 1341 College Algebra or	
MATH 1371 College Algebra for Business	3
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	3
Elective (must be outside the major area)	**3**
Major Requirements	**33**
FIRE 1301 Fundamentals of Fire Protection	3
FIRE 1302 Industrial Fire Protection I	3
FIRE 1305 Fire Prevention	3
FIRE 1306 Chemistry for Fire Fighters	3

FIRE 2301 Fire and Arson Investigation 3
FIRE 2302 Building Codes and Construction 3
FIRE 2303 Fire Administration 3
FIRE 2306 Hazardous Materials I 3
FIRE 2307 Fire Safety Education 3
FIRE 2315 Fire Fighting Tactics and Strategy 3
FIRE 2316 Fire Ground Command 3

Related Requirements **10**
EMED 1201 Clinical Practicum 2
EMED 1501 Emergency Care of the Sick and Injured 5
COSC 1301 Introduction to Computer Systems 3

Approved Elective **3**
FIRE 1303 Industrial Fire Protection II or
FIRE 1304 Fire Protection Systems or
FIRE 2310 Fire Hydraulics and Equipment or
FIRE 2314 Hazardous Materials II 3

Total Semester Hours **64**

A Certificate of Technology may be earned by those who do not wish to pursue an associate's degree by completing the course of study listed below.

Fire Technology Certificate

Semester Hrs

Related Requirements **23**
EMED 1201 Clinical Practaicum 2
EMED 1501 Emergency Care of the Sick and Injured 5
EMED 2801 Advanced Emergency Care of the Sick and Injured 8
EMED 2802 Advanced Emergency Care of the Sick and Injured 8

Total Semester Hrs **44**

Major Requirements **21**
FIRE 1301 Fundamentals of Fire Protection 3
FIRE 2307 Fire Safety Education 3
FIRE 1305 Fire Prevention 3
FIRE 2315 Firefighting Tactics and Strategy 3
FIRE 2306 Hazardous Materials 3
FIRE 2316 Fire Ground Command 3
FIRE Elective

Total Semester Hours **44**

Fire Technology Courses

FIRE 1301 Fundamentals of Fire Protection
(3-0) ..... 3 hours
Presents history and philosophy of fire protection and evaluates the loss of life and property by fire. Introduces and locates the different agencies involved in fire protection. Students will select the proper technology to suppress and extinguish fires. Participants will catalogue, list, classify, and justify the specific requirements which must be considered in order to gain career employment at the local, state, and national level. Gives overview of the fire protection system including: Suppression, Arson Investigation, Fire Prevention, Hazardous Materials, and Emergency Medical Service. (SCANS 1,2,6,7,8,9) Prerequisite: None.

FIRE 1302 Industrial Fire Protection I

(3-0) ..... 3 hours

Students will interpret specific concerns and understand safeguards related to business and industrial organizations. Will understand the impact of industrial fire brigade organization and development, plant layout, fire prevention programs, extinguishing factors and techniques, hazardous situations, and fire prevention methods. Stresses negotiation between the public and private fire department organizations. Interprets the elementary fire hazards in manufacturing plants and businesses. (SCANS 1,5,6,7,9) Prerequisite: None.

FIRE 1303 Industrial Fire Protection II

(3-0) ..... 3 hours

Participant will interpret and communicate the development of fire and safety organizations in industry. Will understand the relation between private and public fire prevention organizations. Select the correct technology to deal with current trends, deficiencies, and possible solutions for industrial fire problems. Interpret the role of insurance and other special organizations. Select the correct technology for specific industrial processes, equipment, facilities and work practices to accomplish extinguishment and control for potential hazards and techniques. Requires field trips to selected plants for demonstration of new techniques, equipment and other innovations. (SCANS 6,7,8,9) Prerequisite: FIRE 1302 or permission of department chairman.

FIRE 1304 Fire Protection Systems

(3-0) ..... 3 hours

Will understand the required standards for water supply, special hazards, automatic signaling, detection, and protective systems as well as automatic sprinklers and extinguishing systems. Interprets the role of rating organizations and underwriting agencies. Project the required water flow to accomplish extinguishment. (SCANS 3,6,7,9) Prerequisite: None.

FIRE 1305 Fire Prevention

(3-0) ..... 3 hours

Students will understand the recognition of fire hazards and the objectives and views of inspections, fundamental principles, methods, techniques, and procedures of fire prevention administration. Will project the estimated expenditures and/or budget needs of fire prevention. Includes interpretation of fire prevention organization, their public image and cooperation with the public. Considers legal aspects and insurance problems. Emphasizes development and implementation of a systematic and deliberate inspection program and the relative relationship between building inspection agencies and fire prevention organizations. Surveys local, state, and national codes pertaining to fire prevention and related technology. Offers engineering as a solution to fire hazards. (SCANS 3,7,8,9,10) Prerequisite: None.

FIRE 1306 Chemistry for Fire Fighters

(3-0) ..... 3 hours

The student will understand and deal with the principles of fire protection chemistry. Will deal with the study of the effects of fire on combustible and noncombustible materials and will understand the role of chemistry in the fire service. Will perform the basic calculations required to convert chemical equations. (SCANS 3,6,8,9) Prerequisite: None.

FIRE 2301 Fire and Arson Investigation
(3-0) ..... 3 hours
Deals with the problem of fire and arson in today's society. Introduces investigative theory, collection and preservation of evidence and sources of information. Students will be able to observe documents and other tangible items and determine their evidence quality, write reports on investigative findings, and learn to allocate resources, exercise leadership over activities, evaluate information and use creative thinking and deductive reasoning in the process of fire scene investigation. Students will become familiar with forensic sciences and processes for case preparation and trial procedures. (SCANS 2,4,5,6,7,9) Prerequisite: None.

FIRE 2302 Building Codes and Construction
(3-0) ..... 3 hours
Considers and interprets fundamentals of building construction and design. Emphasizes fire resistance of building materials and assemblies, exposures and related data focused on fire protection concerns. Student will select the correct technology for fire suppression, ventilation, and forcible entry. Reviews related statutory and suggested guidelines, both local and national. Reviews Model Building Codes and Life Safety Code. (SCANS 6,8,9) Prerequisite: None.

FIRE 2303 Fire Administration
(3-0) ..... 3 hours
Presents organization and management of fire departments. Includes budgeting, maintaining records and reports, and managing personnel. Also includes relation of various governmental agencies to fire protection areas. Views fire service leadership from the administrative position. (SCANS 6,7,9,10) Prerequisite: None.

FIRE 2306 Hazardous Materials I
(3-0) ..... 3 hours
Student will understand and interpret the different chemical characteristics and behavior of various hazardous materials, including flammable liquids, combustible gases and solids. Emphasizes emergency situations and the most favorable methods of extinguishing, controlling, and handling such substances. (SCANS 6,8,9) Prerequisite: None.

FIRE 2307 Fire Safety Education
(3-0) ..... 3 hours
Evaluates the many different physical, chemical, and electrical hazards encountered by fire protection personnel. Students will interpret their relationship to loss of property and/or life. Presents detailed examination and study of the physical and psychological variables related to the occurrence of casualties. Stresses safety techniques while on the fire ground, at the fire station, and while driving emergency vehicles. (SCANS 6,7,8,9) Prerequisite: None.

FIRE 2310 Fire Hydraulics and Equipment
(3-0) ..... 3 hours
Interprets the laws of mathematics and physics to properties of fluid states, force pressure, and flow velocities. Students will perform basic calculations applying principles of hydraulics to fire fighting problems. Will select technology to evaluate water supply, flow requirements of standpipes, sprinklers, appliances and methods of determining available quantities of water for fire protection purposes. (SCANS 3,6,8,9) Prerequisite: FIRE 1301 or permission of department chair.

FIRE 2314 Hazardous Materials II
(3-0) ..... 3 hours
Evaluates hazardous material storage, handling, laws, standards and fire fighting techniques associated with chemicals, gases, and other exotic fuels and mixtures. Student will understand formation of toxic fumes and other related health hazards. Will interpret and acquire ignition and combustion characteristics of gases, liquids, and solids related to free-burning fire and explosion phenomena. Will choose the correct technology for dealing with radiation. (SCANS 6,7,8,9) Prerequisite: FIRE 2306 or permission of department chair.

FIRE 2315 Fire Fighting Tactics and Strategy
(3-0) ..... 3 hours
Participants will cover the essential elements in analyzing the nature of fire and determining the requirements for extinguishment. Will select the correct technology to produce efficient and effective utilization of manpower and equipment. Emphasizes pre-planning, study of conflagration phenomena, fire ground organization and problem solving related to decision making and attack strategy and tactics. Includes use of mutual aid and large scale command problems. (SCANS 6,7,8,9) Prerequisite: FIRE 1301 or permission of department chair.

FIRE 2316 Fire Ground Command
(3-0) ..... 3 hours
Student will understand and demonstrate, in practice, the techniques for properly managing the fire or emergency scene. Fire scene operations will maintain the initial goal of safety and fire extinguishment. These technologies include assuming command, evaluating the situation, communicating, identifying strategies and developing plans, changes in command and total implementation. Emphasizes all aspects of the incident command system. (SCANS 6,8,9) Prerequisite: None.

Basic Fire Fighter Academy - OCFA

The basic course for fire fighters is designed for people interested in pursuing fire technology and fire fighting as a career. The training curriculum mandated by the Texas Commission on Fire Protection Personnel Standards and Education has been equated to six courses — 21 semester hours — in the fire technology curriculum. College credit for six academic courses will be awarded for successful completion of the academy and will be recorded in the registrar's office at Odessa College.

Consultation with the director is required before registration. Upon satisfactory completion of the entire academy, the following credits will be awarded:

Course	Semester Hrs
OCFA 1305 Fire Prevention	3
OCFA 2306 Hazardous Materials	3
OCFA 2307 Fire Safety Education	3
OCFA 2401 Fundamentals of Fire Protection	4
OCFA 2402 Fire Hydraulics and Equipment	4
OCFA 2403 Fire Fighting Tactics and Strategy	4

A Certificate of Technology may be earned by those who do not wish to pursue an associate's degree. Students must complete the 21 semester hours in OCFA courses with a minimum grade of "C" in each class.

OCFA 1305 Fire Prevention
(3-0) .....3 hours
Students will understand the recognition of fire hazards and the objectives and views of administration. Will project the estimated expenditures and/or budget needs of fire prevention. Includes interpretation of the fire prevention organization, their public image and cooperation with the public. Considers legal aspects and insurance problems. Emphasizes development and implementation of a systematic and deliberate inspection program and the relative relationship between building inspection agencies and fire prevention organizations. Surveys local, state, and national codes pertaining to fire prevention and related technology. Offers engineering as a solution to fire hazards. (SCANS 7,8,9,10) Prerequisite: None.

OCFA 2306 Hazardous Materials
(3-0) .....3 hours
Student will understand and interpret the different chemical characteristics and behavior of various hazardous materials, including flammable liquids, combustible gases and solids. Emphasizes emergency situations and the most favorable methods of extinguishing, controlling, and handling such substances. (SCANS 6,8,9) Prerequisite: None.

OCFA 2307 Fire Safety Education
(3-0) .....3 hours
Evaluates the many different physical, chemical, and electrical hazards encountered by fire protection personnel. Student will interpret their relationship to loss of property and/ or life. Presents detailed examination and study of the physical and psychological variables related to the occurrence of casualties. Stresses safety techniques while on the fire ground, at the fire station, and while driving emergency vehicles. (SCANS 6,7,8,9) Prerequisite: None.

OCFA 2401 Fundamentals of Fire Protection
(3-3) .....4 hours
Presents history and philosophy of fire protection and reviews statistics of loss of life and property by fire. Introduces and locates the different agencies involved in fire protection. Students will select the proper technology to suppress and extinguish fires. Participants will catalogue, list, classify, and justify the specific requirements which must be considered in order to gain career employment at the local, state, and national level. Gives overview of the fire protection system including: Suppression, Arson Investigation, Fire Prevention, Hazardous Materials, and Emergency Medical Service. Lab fee required. (SCANS 1,2,6,7,8,9) Prerequisite: None.

OCFA 2402 Fire Hydraulics and Equipment
(3-2) .....4 hours
Interprets the laws of mathematics and physics to properties of fluid states, force pressure, and flow velocities. Students will perform basic calculations applying principles of hydraulics to fire fighting problems. Will select technology to evaluate water supply, flow requirements of standpipes, sprinklers, appliances and methods of determining available quantities of water for fire protection purposes. Lab fee required. (SCANS 3) Prerequisite: None.

OCFA 2403 Fire Fighting Tactics and Strategy
(3-2) .....4 hours
Participants will cover essential elements in analyzing the nature of fire and determining the requirements for extinguishment and will select the correct technology to produce efficient and effective utilization of manpower and equipment. Stresses efficient and effective utilization of manpower and equipment. Emphasizes pre-planning, study of conflagration phenomena, fire ground organization and problem solving related to decision making and attack strategy and tactics. Includes use of mutual aid and large scale command problems. Lab fee required. (SCANS 4,7,8,9) Prerequisite: None.

French *(see English and Foreign Languages)*

Geography *(see Geology, Anthropology and Geography)*

Geology, Anthropology and Geography

Faculty: G. Brent McAfee, chair.

Geology

Geology is a study of the earth, its history, materials, changing life, and the processes that have resulted in its present form. For students who do not wish more than a year of geology, the principal value will be primarily on an increased interest in and understanding of their environment. However, for those majoring in geology, petroleum or civil engineering, and ecological or environmental studies, the first year of geology courses provides necessary background for further study. GEOL 1403 and GEOL 1404 will serve as a required physical and/or natural science for non-science majors at most universities.

Course of Study for Associate in Science Degree

Geology

	Semester Hrs
General Education Requirement	**54**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	3
SPCH 1311 Introduction to Speech	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1314 College Algebra or More Advanced	3
MATH 1316 Plane Trigonometry or More Advanced	3
MATH 1348 Analytic Geometry or More Advanced	3
MATH 2313 Calculus I or More Advanced	3
*PHED (Any two one-hour activity courses)	2
CHEM 1311 General Inorganic Chemistry I and CHEM 1111 Fundamentals of Chemistry Laboratory I	4
CHEM 1312 General Inorganic Chemistry II and CHEM 1112 Fundamentals of Chemistry Laboratory II	4
PHYS 1401 College Physics I or PHYS 2426 Engineering Physics II	4
PHYS 1402 College Physics II or PHYS 2427 Engineering Physics III	4
Elective (must be outside the major area)	**3**
Major Requirements	**11**
GEOL 1403 Physical Geology	4
GEOL 1404 Historical Geology	4
BIOL 2370 Marine Ecology	3
Total Semester Hours	**68**

**PHED 1100 should be the first course taken in physical education.*

GEOL 1403 Physical Geology (GEOL 1401)
(3-3) .....4 hours
This course is a study of the physical aspects of the Earth's crust. Students will study the origin, occurrence, and classification of minerals, rocks, structures and landforms. Laboratory activities involve the students in organizing and processing data related to the classification of minerals and rocks and principles underlying the relationships between topographic maps and geological processes. Lab fee required. (SCANS 6,9) Prerequisite: None.

GEOL 1404 Historical Geology (GEOL 1402)
(3-3) .....4 hours
Students study the chronological sequence of events in the physical history of the Earth and its life forms. Laboratory activities involve the students in acquiring and evaluating data related to fossils and their relationship to ancient environments. Students also organize and process data related to the classification of fossils and principles underlying the relationships between lithology, age, structure and geological map interpretation. Lab fee required. (SCANS 6,9) Prerequisite: None.

Anthropology

Anthropology is a comprehensive study of man and his works. The discipline includes human origin and development, variation in physical types, and aspects of human culture such as family patterns and customs, economics, religions, languages, and handicrafts and technology. ANTH 2301 and ANTH 2351 will fulfill social science requirements at many universities.

ANTH 2301 Physical Anthropology (ANTH 2301)
(3-0) .....3 hours
This course is a study of the physical characteristics of man. Students will interpret data related to modern man, fossil man, and higher primates. Students organize and process data related to physical characteristics of modern man and analyze principles underlying the relationships between modern man and prehistoric man. (SCANS 6,9) Prerequisite: GEOL 1403 or consent of the department chair.

ANTH 2351 Cultural Anthropology (ANTH 2302)
(3-0) .....3 hours
Students will study human culture in the historical perspective. Students also organize and process data related to the development of culture as well as comparing principles and relationships of present cultures. (SCANS 6,9) Prerequisite: None.

Geography

Courses in geography are designed to acquaint students with the world and its peoples. Major aspects of both physical and cultural geography are studied in an integrated manner in order to provide a greater understanding of world conditions. GEOG 1301 and GEOG 1302 will fulfill social science requirements at many colleges.

GEOG 1301 Principles of Geography I (GEOG 2301)
(3-0) .....3 hours
Students are taught to understand and interpret physical and cultural geography of North and South American countries. Students also organize and process data related to geographic maps of the various countries. (SCANS 6) Prerequisite: None.

GEOG 1302 Principles of Geography II (GEOG 2302)
(3-0) .....3 hours
Students study the physical and cultural geography of Europe, Asia, Africa, Australia, and the more important island groups. Students also organize and process data related to geographic maps of the countries and island groups. (SCANS 6) Prerequisite: None.

German *(see English and Foreign Languages)*

Government *(see Social Sciences)*

Heating, Ventilation, Air Conditioning Technology

Faculty: James Bates, chair.

Heating, ventilation and air conditioning is one of the fastest growing industries in the world today. Food preparation and storage, personal comfort, medical procedures and industrial processes have been radically changed and improved by refrigeration. At present, the demand for trained personnel has far exceeded the supply and every new phase of the industry creates greater demands.

Course of Study for Associate in Applied Science Degree
Heating, Ventilation, Air Conditioning

	Semester Hrs
General Education Requirements	**20**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or MATH 1372 Technical College Algebra or MATH 1371 College Algebra for Business	3
PSYC 2302 Applied Psychology	3
PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Technical Core	**16**
ELEC 2410 National Electrical Code	4
MAIN 1402 Plumbing Fundamentals	4
BLDG 2404 Structural Repair	4
HVAC 1401 Refrigeration Theory	4
Major Requirements	**26**
HVAC 1400 Basic Control Theory	4
HVAC 1403 Commercial Refrigeration	4
HVAC 1404 Heating	4
HVAC 2302 Air Conditioning Design	3
HVAC 2377 Cooperative Work Experience	3
ELEC 2404 Electrical Machinery and Controls	4
WELD1401 General Welding	4
Total Semester Hours	**65**

Certificate of Technology in Heating, Ventilation, Air Conditioning

Certificates of Technology are available in the following job-specific fields.

Basic HVAC Technician Option

	Semester Hrs
TMTH 1370 Technical College Mathematics or higher level math	3
PSYC 2302 Applied Psychology or ENGL 1312 Report Writing	3
HVAC 1400 Basic Control Theory	4
HVAC 1401 Refrigeration Theory	4
HVAC 1404 Heating	4
Total Semester Hours	**18**

Advanced HVAC Technician Option

COSC 1301 Intro to Computer Systems	3
TMTH 1370 Technical College Mathematics or higher level math	3
PSYC 2302 Applied Psychology or ENGL 1312 Report Writing	3
ELEC 2410 National Electrical Code	4
HVAC 1400 Basic Control Theory	4
HVAC 1401 Refrigeration Theory	4
HVAC 1403 Commercial Refrigeration	4
HVAC 1404 Heating	4
HVAC 2302 Air Conditioning Design	3
HVAC 2305 Refrigeration and Air Conditioning Business Operations	3
HVAC 2205 Mechanical Code	2
HVAC 2409 Building Energy Audit Training	4
Total Semester Hours	**41**

Commercial Refrigeration Maintenance Technician Option

COSC 1301 Intro to Computer Systems	3
TMTH 1370 Technical College Mathematics	3
PSYC 2302 Applied Psychology or ENGL 1312 Report Writing	3
MAIN 1402 Plumbing Fundamentals	4
ELEC 2410 National Electrical Code	4
HVAC 1400 Basic Control Theory	4
HVAC 1401 Refrigeration Theory	4
HVAC 1403 Commercial Refrigeration	4
Total Semester Hours	**29**

Heating, Ventilation, Air Conditioning Technology Courses

HVAC 1400 Basic Control Theory (R/AC 1400)
(3-3) ..... 4 hours
Course includes the understanding and interpretation of schematic diagrams and basic electricity technology and progresses to electric motors, design and function of starters, contactors, relays, capacitors, overloads and control circuits applicable to the refrigeration and air conditioning industry. Students will perform mathematical calculations pertaining to OHMS Law and learn to deal with customer expectations. Lab fee required. (SCANS 1,3,5,8) Prerequisite: None. Corequisite: HVAC 1401.

HVAC 1401 Refrigeration Theory (R/AC 1401)
(3-3) ..... 4 hours
Competencies include the technology of heat transfer, behavior of gases, refrigeration cycle, component parts of the compression refrigeration machine and its accessories. Students will learn to understand and interpret charging charts in order to charge systems, recover refrigerant using UL and EPA approved recovery systems. Students will be exposed to customer relations and troubleshooting techniques. (SCANS 1,5,8,9) Lab fee required. Prerequisite: None.

HVAC 1403 Commercial Refrigeration (R/AC 1403)
(3-3) ..... 4 hours
Focuses on commercial refrigeration component technology. Designed for competency in theory and application of metering devices, evaporators, compressors, condensers, driers, sight glasses, system accessories, sizing of walk-in and reach-in boxes and line sizing. Customer relations and responsibility are stressed. (SCANS 3,5,8,9) Lab fee required. Prerequisite: HVAC 1401.

HVAC 1404 Heating (R/AC 1404)
(3-3) ..... 4 hours
Competencies include gas controls, properties of gas and gas piping, gas combustion, burners, troubleshooting, venting of heating systems and electrical strip heat. Presents theories of control and principles of heat pumps, sizing, installing, servicing, troubleshooting, and customer relations. (SCANS 5,8,9) Lab fee required. Prerequisite: HVAC 1400.

HVAC 2204 Refrigeration and Air Conditioning System Troubleshooting (R/AC 2204)
(2-0) ..... 2 hours
Competencies prepare students to troubleshoot refrigeration and air conditioning systems and troubleshooting charts as well as dealing with customer's expectations. Emphasizes the mechanical refrigeration system. (SCANS 1,5,7,8,9) Prerequisite: HVAC 1400 and HVAC 1401.

HVAC 2205 Mechanical Code (R/AC 2205)
(2-0) ..... 2 hours
Presents an overview of all HVAC courses and Electrical systems as related to HVAC, theories and concepts with special emphasis on the understanding, interpretation and documentation of the mechanical code and requirements for the State mechanical contractors license. (SCANS 1,2,7,8) Prerequisite: HVAC 1401 or consent of the department chair.

HVAC 2302 Air Conditioning Design (R/AC 2302)
(3-0) ..... 3 hours
Competencies include sizing and selecting air conditioning equipment and designing air distribution systems. Emphasizes estimating loads of residential and commercial applications. Students will learn to interpret blueprints and properly fill out heat load forms. (SCANS 1,3,8) Lab fee required. Prerequisite: None.

HVAC 2305 Refrigeration and Air Conditioning Business Operations (R/AC 2305)
(3-0) ..... 3 hours
Competencies include the basic understanding of set up and operating procedures of a small HVAC business. Topics include types of ownership, types of loans, accounting, marketing, taxation, cash flow, legal aspects and equipment and material control. (SCANS 3,7,10) Prerequisite: None.

HVAC 2377 Cooperative Work Experience
(3-0) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

HVAC 2409 Building Energy Audit Training (R/AC 2409)
(3-3) ..... 4 hours
Competencies include methods of performing a building energy audit. Students will identify and evaluate available energy conservation options and evaluate differing air conditioning, lighting and refrigeration systems in order to help customers make the best selection. (SCANS 3,5,6,8) Lab fee required. Prerequisite: None.

History *(see Social Sciences)*

Human Development *(see Orientation)*

Human Services

Faculty: James Jordan, chair.

Odessa College offers a program in human services (alcohol and drug abuse) for those students who wish to be licensed by the Texas Commission on Alcohol and Drug Abuse (TCADA) in order to accept employment relating to victims of alcohol and drug abuse. The core curriculum in human services, which meets the requirements of the Texas Commission on Alcohol and Drug Abuse, can lead to an Associate in Applied Science Degree or a Certificate of Completion in Human Services. The human services program also is approved by the Texas Association of Alcohol and Drug Abuse Counselors (TAADAC).

Course of Study for Associate in Applied Science Degree
Alcohol and Drug Abuse

	Semester Hrs
General Education Requirements	**41**
CHLD 1304 The Abused and Neglected Child	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3

GOVT 2301 U.S. and Texas Government or
GOVT 2302 American National Government 3
COSC 1301 Introduction to Computer Systems 3
MATH 1332 Structures of College Mathematics I or
higher level math 3
*PHED (Any two one-hour activity courses) 2
PSYC 2301 Introduction to Psychology 3
PSYC 2302 Applied Psychology 3
SOCI 1301 Principles of Sociology 3
SOCI 1306 Social Problems 3
SOCI 2301 Sociology of the Family 3
SPCH 1321 Business and Professional Speech 3

Elective (must be outside the major area) **3**

Major Requirements **22**
HUMS 1301 Introduction to Chemical Dependency 3
HUMS 1302 Issues in Chemical Dependency 3
HUMS 1306 Basic Counseling Skills I 3
HUMS 1308 Basic Counseling Skills II 3
HUMS 2310 Special Studies in Chemical Dependency 1
HUMS 2401 Counseling Skills III 4
HUMS 2350 Clinical Practicum 5

Total Semester Hours **63**

**PHED 1100 should be the first course taken in physical education.*

Students who wish only to qualify to take the TCADA licensure or TAADAC licensure examination may do so by successfully completing 22 semester hours of Human Services courses.

Students who wish to transfer to an upper-level institution should check requirements of that institution.

Human Services Certificate Program

This program is designed for the individual who cannot commit to two years in a formalized degree program but wishes to obtain employable skills in the human services field as quickly as possible. Individuals who complete this program secure employment and may continue their studies toward a degree on a part-time basis without having to repeat major or related courses in the degree sequence.

Course of Study for Certificate of Completion

Alcohol and Drug Abuse

Semester Hrs

General Education Requirement **12**
ENGL 1301 Composition and Rhetoric 3
COSC 1301 Introduction to Computer Systems 3
MATH 1332 Structures of College Mathematics I or higher level math 3
SPCH 1321 Business and Professional Speech 3

Major Requirements **22**
HUMS 1301 Introduction to Chemical Dependency 3
HUMS 1302 Issues in Chemical Dependency 3
HUMS 1306 Basic Counseling Skills I 3
HUMS 1308 Basic Counseling Skills II 3
HUMS 2310Special Studies in Chemical Dependency 1
HUMS 2401 Counseling Skills III 4
HUMS 2350 Clinical Practicum 5

Total Semester Hours **34**

Human Services Courses

HUMS 1301 Introduction to Chemical Dependency
(3-0) ..... 3 hours
Presents an overview of chemical dependency, including concepts of addiction, the family, and the recovery process. Students will learn the complex inter-relationships associated with addiction, the value of self-esteem, honesty, and integrity, and problem resolution involving divergent interests. Written and verbal communications will be highlighted as will interpretational skills. (SCANS 5,7,9,10) Prerequisite: None.

HUMS 1302 Issues in Chemical Dependency
(3-0) ..... 3 hours
Presents a detailed study of interpersonal behavior patterns, lifestyles, and social relationships associated with chemical dependency. Students will acquire and evaluate technical information pertaining to all major drug groups and be able to relate this information using didactic methods. Responsibility, self-esteem, integrity and honesty will be re-emphasized. (SCANS 5,6,10,11) Prerequisite: None.

HUMS 1306 Basic Counseling Skills I
(3-0) ..... 3 hours
Introduces the basic model of chemical dependency counseling therapy. Includes concepts of active listening, empathy, challenging and goal setting. Teaching others new skills, interpreting verbal and non-verbal ques, and monitoring client outcomes will be discussed. (SCANS 5,6,9,11) Prerequisite: None.

HUMS 1308 Basic Counseling Skills II
(3-0) ..... 3 hours
Introduces various chemical dependency counseling theories and provides a basis for developing individual counseling styles. Problem solving using probing, confrontation, and goal setting will be practiced in class using the methods discussed. Listening, communicating, and teaching individually and in groups will be focal points. (SCANS 5,6,9,10,11) Prerequisite: None.

HUMS 2310 Special Studies in Chemical Dependency
(3-0) ..... 3 hours
Introduces the student to the practical aspects of chemical dependency counseling. Interviewing techniques, case history preparation, treatment planning, assessment interpretation, group dynamics, and discharge summary analysis will be performed. Students will use individual and team approaches to manage resources, evaluate information, and propose creative ideas regarding client management. Oral presentations will be emphasized as well as listening skills. (SCANS 5,6,9,11) Prerequisite: HUMS 1301, HUMS 1302, HUMS 1306, and HUMS 1308, or department chair approval.

HUMS 2350 Clinical Practicum
(1-20) ..... 3 hours
Presents the 12 Core Functions of Chemical Dependency Counseling in a clinical setting. Students will be required to work in a local Substance Abuse Treatment Center for a minimum of 300 hours during the semester fulfilling the Texas Commission on Alcohol and Drug Abuse practicum license requirement. Students will demonstrate their knowledge and understanding of resource management, interpersonal skills, information acquisition and interpretation, thinking, and personal listening and speaking skills. (SCANS 4,5,6,9,10,11) Prerequisites: Must be eligible to apply for Counselor Intern (CI) status through TCADA and/or Counselor-in-Training (CIT) status through TAADAC; a "B" average for all prior HUMS coursework; and department chair approval.

HUMS 2401 Counseling Skills III
(4-0) ..... 4 hours
Emphasis will be placed on the 12 Core Functions of Chemical Dependency counseling, including practical experience in utilizing counseling skills using micro-counseling techniques. Counseling ethics, AIDS, Gambling Addiction and Sexual Abuse will be discussed. Individual student personal qualities, creative thinking, listening and speaking skills, resource management, writing and interpersonal skills will be emphasized and sharpened. (SCANS 4,5,7,9,10,11) Prerequisites: HUMS 1301, HUMS 1302, HUMS 1306, and HUMS 1308.

Humanities

Faculty: Delmos Hickmott, chair; Barry Phillips, Barry Phillips III.

Humanities students have the opportunity to pursue an interdisciplinary arts program with an emphasis in one major area which culminates in an Associate in Arts Degree. This program is designed to prepare individuals for paraprofessional arts occupations, leadership and involvement in the development of community arts activities. It allows the student to explore the arts areas of visual art, music, and photography. The interdisciplinary nature of the program gives breadth to the student's arts involvement.

Course of Study for Associate in Arts Degree*

Art Option

The suggested course of study is designed for the Associate in Arts Degree in the Humanities with a concentration in art. Similar plans can be designed for music and photography.

	Semester Hrs
General Education Requirements	**37**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
**Language, Math or Science	6-8
*PHED (Any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Elective (must be outside the major area)	**3**
Major Requirements	**24**
ARTS 1316 Drawing I	3
ARTS 1311 Design I	3
Any two sophomore arts courses	6
ARTS 1304 Art History Survey II	3
HUMA 1315 Introduction to The Fine Arts (Self-Paced)	3
MUSI 1306 Music Appreciation	3
PHOT 2370 History of Photography	3
Total Semester Hours	**64**

**PHED 1100 should be the first course taken in physical education.*
***Six to eight semester hours in same discipline.*

Humanities Courses

HUMA 1315 Introduction to the Fine Arts (Self-Paced) (HUM 1310)
(3-0) ..... 3 hours
Develops the sensibility to value the cultural contributions of past and present global civilizations, to enjoy cultural diversity, to welcome and adapt to cultural change, and to contribute to the well-being of the global community. Encourages a belief in the worth, dignity, and potential of all individuals, races, and cultures. Specialized courses in Introduction to the Arts and Introduction to World Mythology are offered on a rotating basis. (SCANS 9,10) Prerequisite: None.

Latin *(see English and Foreign Languages)*

Law Enforcement/Criminal Justice

Faculty: Sidney Lyle, chair; Annie Littlefield, paraprofessional; George Baucum, Jim McKown.

The field of law enforcement/criminal justice presents a challenging field of study for people interested in public service. The ever increasing problem of crime, as well as continued population growth provides many opportunities to those who have prepared themselves through education and training. This program offers students the opportunity to attend an approved Texas Peace Officer Academy and meet the requirements of licensure to be a Texas law enforcement officer. It also provides an avenue to obtain an Associate in Applied Science Degree in Law Enforcement/Criminal Justice. The associate degree program consists of both law enforcement and academic courses. It serves as the first two years of study for the baccalaureate degree in criminal justice or law enforcement in many senior colleges and universities.

Those students who are enrolled in the academic program and who wish to be licensed must first complete the designated seven transfer courses. The student may then enroll in the academy and complete that portion of the academy that the Texas Commission on Law Enforcement Officer Standards and Education has designated as the Texas Peace Officer Sequence courses. These courses will be offered as open entry credit courses and are a part of the basic academy requirements. For further information, contact the department chair.

Course of Study for Associate in Applied Science Degree

Law Enforcement/Criminal Justice

	Semester Hrs
General Education Requirements	**17**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
SPCH 1321 Business and Professional Speech	3
GOVT 2301 U.S. and Texas Government	3
MATH 1332 Structures of College Mathematics I or higher level math	3
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**

	Semester Hrs
Major Requirements	**33**
CRIJ 1301 Introduction to Criminal Justice	3
CRIJ 1306 The Courts and Criminal Procedure	3
CRIJ 1307 Crime In America	3
CRIJ 1310 Fundamentals of Criminal Law	3
CRIJ 1318 Patrol Administration	3
CRIJ 1322 Traffic Law	3
CRIJ 2314 Criminal Investigation	3
CRIJ 2322 Juvenile Procedures	3
CRIJ 2323 Legal Aspects of Law Enforcement	3
CRIJ 2328 Police Systems and Practices	3
CRIJ 2331 Traffic Management and Supervision	3
****Approved Electives**	**13**
Total Semester Hours	**66**

**PHED 1100 should be the first course taken in physical education. PHED 1118 and PHED 1119 are recommended for those individuals pursuing a career as a peace officer. Those students attending the law enforcement academy may substitute the Texas Peace Officer Sequence courses, LEA 2414, LEA 2415 and LEA 2416 for CRIJ 1322, CRIJ 1310 and CRIJ 2471. Other credits awarded for the degree through the academy are CRIJ 2314, CRIJ 2323, CRIJ 2374 and CRIJ 1306.*

***Approved Electives: PSYC 2315, SOCI 1301, SPAN 1300, SPAN 1411, PHED 1149, CRIJ 1321, CRIJ 1379, CRIJ 2320, CRIJ 2370, CRIJ 2471, CRIJ 2374, CRIJ 2572, CRIJ 2578, LEA 2414, LEA 2415, LEA 2416, OFST 1401, HIST 1301, HIST 1302, ENGL 1312, BCIS 1401, CHLD 1304, FIRE 2301 and FIRE 2306.*

Students must complete 66 hours as approved by the department chair to meet degree requirements. Any variance from prerequisites or any substitution of courses must have prior, written approval.

Students not desiring the A.A.S. degree may receive a certificate of technology by completing a minimum of 33 semester hours in major law enforcement courses.

Texas accrediting agencies have designated seven law enforcement courses as transfer courses creditable and transferable toward any law enforcement/criminal justice degree offered in Texas. Those courses are as follows: CRIJ 1301, CRIJ 1306, CRIJ 1307, CRIJ 1310, CRIJ 2314, CRIJ 2323 and CRIJ 2328. Students should receive written confirmation from the college or university to which they intend to transfer regarding the scope and extent of acceptance of these courses.

All persons who apply for a peace officer's position with any law enforcement agency in Texas must first have completed all mandated training and education prior to being employed. The two methods of achieving Texas peace officer licensure are as follows:

1. Successful completion of that portion of the academy designated as LEA 2414, LEA 2415 and LEA 2416 (TCLEOSE sequence courses) plus the seven transfer courses, or
2. Successful completion of the Law Enforcement Academy.

Law Enforcement/Criminal Justice Courses

CRIJ 1301 Introduction to Criminal Justice (LE 1301)
(3-0) .....3 hours
Presents history and philosophy of criminal justice and its ethical considerations. Students will use terms, concepts, and applications to identify and explain the relationships between the three branches of government, prepare written reports and charts explaining the flow of investigative information to, and jurisdiction of, the various court systems. Participants will catalogue, list, classify, and justify the specific requirements which must be met in order to gain career employment at the local, state, and national level. Recognize crime problems and its nature and impact on society. Gives overview of the criminal justice system: law enforcement, the courts, prosecution and defense, the trial process, and corrections. (SCANS 1,2,5,6,9,11) Prerequisite: None.

CRIJ 1306 The Courts and Criminal Procedure (LE 2313)
(3-0) .....3 hours
Students will learn, understand, and be able to explain the functions of the judiciary in the criminal justice system. Class participants will write quality reports dealing with probable cause, the exclusionary rule and other vital subjects related to the judiciary. Team projects and assignments will include the analysis of written and spoken words that capture the essence of the Supreme Court, and demonstrate an understanding of the management of rules of evidence and sentencing, right to counsel, pretrial release, grand juries, and the adjudication process. (SCANS 1,2,5,6,7,9,11). Prerequisite: CRIJ 1301.

CRIJ 1307 Crime in America (LE 1302)
(3-0) .....3 hours
Presents in historical perspective the problems of crime in America, and requires the student to interpret data and relate that data to current crime impact on society. Determine the allocation of resources needed to affect crime, explain the part one and part two crime reports, sociological, cultural, and financial status as a contributor to the overall crime picture. Students will recognize and list the various theories which attempt to explain why crime occurs. A systems approach to crime prevention will be explored and the student will develop and prepare a list of suggestions based on the course content which may reduce criminal conduct in specific crimes, and improve the techniques of overall crime prevention. (SCANS 1,2,6,7,9,11) Prerequisite: None.

CRIJ 1310 Fundamentals of Criminal Law (LE 1307)
(3-0) .....3 hours
Students will understand and be able to apply the principles of law as it applies to the maintenance of order in a civilized society and list the penalties associated with the various offenses. The student will acquire the skills needed to determine specific offenses based upon the recognition of the classifications, and elements of crime and criminal responsibility, and will be able to identify specific chargeable offenses embodied in crime scene scenarios. (SCANS 1,6,7,9,11) Prerequisite: CRIJ 1301.

CRIJ 1318 Patrol Administration (LE 1303)
(3-0) .....3 hours
Introduces an overview of administration of the police patrol. Students will study distribution charts and graphs in order to determine what is required in an adequate patrol function from the point of view of the patrol officer, first line supervisor, and the administration, supervisory and management responsibilities, and learn to apply primary thinking skills to problem solving. Students will demonstrate their ability to evaluate and defend their own concept of management skills and learn to integrate new found principles into their own operational format and communicate to others the most appropriate options in the administration of the patrol function. (SCANS 1,4,5,6,9,10,11) Prerequisite: None.

CRIJ 1321 Probation and Parole (LE 2307)
(3-0) ..... 3 hours
The history and evolution of the probation and parole function will be analyzed and evaluated on a cost basis, both to the individual and to society. The student will submit written reports documenting the successes and failures of the probation and parole system, and will theorize about the future of such activities. The student will be able to relate to the needs and duties of probation and parole and apply problem solving techniques to overcome short term and long term difficulties. (SCANS 2,7,9,11) Prerequisite: None.

CRIJ 1322 Traffic Law (LE 1306)
(3-0) ..... 3 hours
This class presents the basic principles of traffic control, traffic law enforcement, and traffic court procedure in context of Texas traffic laws. Students will read and interpret traffic laws as prescribed by the legislature and the courts, reconcile differences between strict enforcement and discretionary enforcement of state traffic laws, apply problem solving skills to traffic direction and control, and anticipate future changes. (SCANS 6,9,11) Prerequisite: None.

CRIJ 1379 Law Enforcement Telecommunications (LE 1309)
(3-0) ..... 3 hours
This class requires the student to interpret concepts of telecommunication and develop a flow-chart of interactive responses between various criminal justice agencies. The student will exercise leadership and communication in stressful situations, select procedures, equipment and specific technologies for modern communication techniques. The student will understand and relate to laws and regulations concerning public safety communication. Instruction will include field trips and hands-on instruction. (SCANS 1,2,5,6,8,9,10) Prerequisite: None.

CRIJ 2314 Criminal Investigation (LE 2304)
(3-0) ..... 3 hours
Introduces investigative theory, collection and preservation of evidence, sources of information. Students will be able to observe documents and other tangible items and determine their evidencuary quality, write extensive reports on investigative findings, and learn to allocate resources, exercise leadership over the collection of evidence activities, evaluate information, and use creative thinking and deductive reasoning in the process of crime scene investigation. Each student will be required to justify their problem solving techniques and offer alternatives to improve the information gathering processes. Students will become familiar with forensic sciences and develop processes for case preparation and trial procedure. (SCANS 2,6,9,10,11) Prerequisite: CRIJ 1301.

CRIJ 2320 County Corrections (Jail Operation & Management) (LE 1308)
(3-0) ..... 3 hours
Presents the basic county corrections course as required for certification by the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE). The student will learn to file, record, catalog and document inmate records entries, submit written documentation concerning prisoner conduct, medication distribution, work schedules and other forms, function under adverse situations involving stress, learn to think critically, and develop good listening and speaking skills. Successful completion admits qualified students to licensure examination for county corrections officer. (SCANS 2,7,9,11) Prerequisite: None.

CRIJ 2322 Juvenile Procedures (LE 2306)
(3-0) .....3 hours
Provides the student with a foundation of history and philosophy of court procedures related to the handling of juveniles as opposed to adults. The student will be able to discern the differences in the legal system as they relate to juveniles, learn how to research juvenile law, write critical reports and prepare documents for court, acquire an understanding of the juvenile court process, and justify why most juvenile officers must process the case from the initial call all the way through the court process and into the adjudication phase. (SCANS 2,6,9) Prerequisite: None.

CRIJ 2323 Legal Aspects of Law Enforcement (LE 2312)
(3-0) .....3 hours
This course presents police authority, responsibility and constitutional constraints on the criminal justice system. The student will learn how to read and understand the content of laws and be able to interpret and explain the rule of law dealing with arrest, search and seizure. The criminal justice system in light of constitutional liability requires the student to apply decision making skills and written reports which analyze the courts decision on specific topics. (SCANS 1,2,6,7,9,10) Prerequisite: CRIJ 1301.

CRIJ 2328 Police Systems and Practices (LE 2305)
(3-0) .....3 hours
Students will demonstrate a high degree of understanding of the police profession by developing reports, charts and comparative data on law enforcement systems to include the role of police in society, police discretion, and criminal justice ethics. Students will select current topics from the press for analysis and problem solving action. Develop budget needs for operational conduct, and be able to develop schedules and justify the generation of new ideas associated with community relations, and current and future issues. (SCANS 2,4,6,7,9,10,11) Prerequisite: CRIJ 1301 and CRIJ 1307.

CRIJ 2331 Traffic Management and Supervision (LE 2303)
(3-0) .....3 hours
Students will examine police responsibilities in traffic planning, and will interpret written information, charts, and graphs in order to project the cost of traffic flow maintenance. Students will write proposals to allocate manpower and equipment on a cost effective basis in order to solve or reduce engineering problems associated with the enforcement of traffic laws. Students will make comprehensive investigative reports of vehicle accidents and demonstrate an understanding of state reporting procedure for accidents involving casualties. (SCANS 1,2,4,5,6,7,9,10,11) Prerequisite: CRIJ 1322.

CRIJ 2370 Physical Evidence and Investigation Techniques (LE 23100)
(2-1) .....3 hours
Presents scientific methods of investigation. Students will learn and be able to demonstrate proficiency in raising latent fingerprints using the latest technologies, classify and file prints, collect and preserve physical evidence, and prepare documentation for court testimony. Emphasizes fingerprinting, police photography and crime scene technology. Techniques will be stressed in which students will evaluate and employ common methods to obtain uncommon results by practicing the art of improvising. Lab fee required. (SCANS 4,6,7,8,9) Prerequisite: CRIJ 2314 or consent of the department chair.

CRIJ 2374 Fundamentals of Interviewing (LE 2364)
(3-0) .....3 hours
The student will become familiar with the behavioral reactions and interactions in a face-to-face interview with suspects, witnesses, and other third parties who may have information concerning criminal offenses. Students will learn how to "read" the suspect and follow the suspect's body language, improve communication techniques, and the application of real life evidence to crime scene technology dealing with interrogation. (SCANS 5,6,7,9,10,11) Prerequisite: Sophomore level or consent of the department chair.

CRIJ 2471 Firearms Proficiency (LE 2411)
(2-3) .....4 hours
Students will become proficient in the use of the handgun and shotgun. Safety procedures and liability risks will be integrated into skills application. Students will learn how to disassemble and make minor adjustments to the weapon. Live firing on the range is required. Proper method of cleaning the weapons will be stressed. Lab fee required. Lab fee does not include ammunition. (SCANS 6,7,8,11) Prerequisite: Be a declared LE major, be enrolled in other LE courses or consent of the department chair.

CRIJ 2572 Introduction to Pre-Trial Release Services (LE 2562)
(3-5) .....5 hours
Fundamentals of pre-trail release will require the student to become familiar with the different kinds of bonding available to persons charged with certain alleged crimes. Students will demonstrate a working knowledge of the techniques, reports, and justifications for decisions which the student will make to the presiding judge concerning personal recognizance release. (SCANS 6,7,11) Prerequisite: Sophomore level, third semester in Law Enforcement/Criminal Justice or a related field and consent of the department chair. Corequisite: CRIJ 2374.

CRIJ 2578 Human Behavior Patterns (LE 2568)
(3-5) .....5 hours
Presents the dynamics of human behavior as it affects criminal activity. Students will list, catalog and be able to explain biological factors, the mentally disordered offender, human aggression and violence, juvenile delinquency and motives behind some types of behaviors and crimes. Students will be required to participate in lab time in a criminal justice agency. Lab is designed to provide students with an opportunity to apply academic training in practical situations. (SCANS 6,7,9,10,11) Prerequisite: CRIJ 2572, CRIJ 2374 or consent of the department chair.

Odessa College Basic Law Enforcement Academy

OCLEA

The basic course for peace officers is designed for persons interested in obtaining a peace officer's license and pursuing law enforcement as a career. The training curriculum segments mandated by the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE) have been equated to seven courses (24 semester hours) in the law enforcement curriculum. College credit for the seven academic courses will be awarded for successful completion of the academy and will be recorded in the registrar's office at Odessa College.

Prior to admission to the academy program, applicants must complete the following:

1. ASSET Test, and
2. A sworn personal history statement with all required attachments.

Individuals who want to take the peace officer sequence (LEA 2414, LEA 2415 and LEA 2416) must first show proof of having successfully completed the seven transfer courses as identified in the Associate in Applied Science Degree for Law Enforcement/ Criminal Justice.

Upon satisfactory completion of the entire academy, the following credits will be awarded:

	Semester Hrs
CRIJ 1306 The Courts and Criminal Procedure	3
CRIJ 2314 Criminal Investigation	3
CRIJ 2323 Legal Aspects of Law Enforcement	3
CRIJ 2374 Fundamentals of Interviewing	3
LEA 2414 Texas Peace Officer Law	4
LEA 2415 Texas Peace Officer Procedures	4
LEA 2416 Texas Peace Officer Skills	4
PHED 1118 Defensive Tactics (Optional)	1
PHED 1119 Advanced Defensive Tactics (Optional)	1

Students successfully completing the 24 semester hours in academy courses with a minimum average of "C" (2.0) in all work will be issued a certificate of technology.

CRIJ 1306 The Courts and Criminal Procedure (LE 2313)
(3-0) ..... 3 hours
Students will learn, understand, and be able to explain the functions of the judiciary in the criminal justice system. Class participants will write quality reports dealing with probable cause, the exclusionary rule and other vital subjects related to the judiciary. Team projects and assignments will include the analysis of written and spoken words that capture the essence of the Supreme Court, and demonstrate an understanding of the management of rules of evidence and sentencing, right to counsel, pretrial release, grand juries, and the adjudication process. (SCANS 1,2,5,6,7,9,11). Prerequisite: CRIJ 1301 or approval by Departmental Faculty.

CRIJ 2314 Criminal Investigation (LE 2304)
(3-0) ..... 3 hours
Introduces investigative theory, collection and preservation of evidence, sources of information. Students will be able to observe documents and other tangible items and determine their evidencuary quality, write extensive reports on investigative findings, and learn to allocate resources, exercise leadership over the collection of evidence activities, evaluate information, and use creative thinking and deductive reasoning in the process of crime scene investigation. Each student will be required to justify their problem solving techniques and offer alternatives to improve the information gathering processes. Students will become familiar with forensic sciences and develop processes for case preparation and trial procedure. (SCANS 2,6,9,10,11)

CRIJ 2323 Legal Aspects of Law Enforcement (LE 2312)
(3-0) ..... 3 hours
This course presents police authority, responsibility and constitutional constraints on the criminal justice system. The student will learn how to read and understand the content of laws and be able to interpret and explain the rule of law dealing with arrest, search and seizure. The criminal justice system in light of constitutional liability requires the student to apply decision making skills and written reports which analyze the courts decision on specific topics. (SCANS 1,2,6,7,9,10) Prerequisite: CRIJ 1301.

CRIJ 2374 Fundamentals of Interviewing (LE 2364)
(3-0) ..... 3 hours
The student will become familiar with the behavioral reactions and interactions in a face-to-face interview with suspects, witnesses, and other third parties who may have information concerning criminal offenses. Students will learn how to "read" the suspect and follow the suspect's body language, improve communication techniques, and the application of real life evidence to crime scene technology dealing with interrogation. (SCANS 5,6,7,9,10,11) Prerequisite: Sophomore level or consent of the department chair.

LEA 2414 Texas Peace Officer Law
(3-3) ..... 4 hours
A study of laws that are directly related to police field work including traffic law, intoxicated drivers, penal codes, elements of crime, the family code, alcoholic beverage code, and civil liability. (SCANS 6,7,9,10,11) Prerequisite: approval by department faculty. (Course restricted to law enforcement academy students).

LEA 2415 Texas Peace Officer Procedures
(3-2) ..... 4 hours
A study of the techniques and procedures used by police officers on patrol including controlled substance identification, handling abnormal persons, traffic collision, traffic direction, crowd control and jail operations. Lab fee required. (SCANS 2,5,6,7,9,10,11) Prerequisite: approval by department faculty. (Course restricted to law enforcement academy students).

LEA 2416 Texas Peace Officer Skills
(3-2) ..... 4 hours
Demonstration and practice of the skills expected of a law enforcement officer including patrol, traffic stops, use of force, mechanics of arrest, firearms safety and emergency medical care. Lab fee required. (SCANS 6,7,9,10,11) Prerequisite: Approval by department faculty. (Course restricted to law enforcement academy students).

Machine Technology *(see Metal Trades Technology)*

Maintenance Technology

Faculty: James Bates, chair; Danny Bailey, Duane Nobles, Tom Wilburn.

The maintenance technology program is designed to train maintenance workers for general maintenance duties. Opportunities for skilled maintenance workers exist in virtually every segment of society. Facility maintenance includes schools, public and private buildings, apartment complexes and condominiums.

Course of Study for Associate in Applied Science Degree

Maintenance Technology

	Semester Hrs
General Education Requirements	**20**
ENGL 1301 Composition and Rhetoric or	
ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	3
COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government	3
MATH 1372 Technical College Algebra or	
MATH 1313 College Algebra or	
MATH 1371 College Algebra for Business	3
PSYC 2302 Applied Psychology	3
PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Technical Core	**16**
ELEC 2410 National Electrical Code	4
MAIN 1402 Plumbing Fundamentals	4
BLDG 2404 Structural Repair	4
HVAC 1401 Refrigeration Theory	4

General Maintenance **27**
- BLDG 1602 Carpentry I 6
- BLDG 1604 Carpentry II 6
- HVAC 1404 Heating 4
- MAIN 2377 Cooperative Work Experience 3
- ELEC 1401 D.C. Circuits 4
- WELD 1401 General Welding 4

Total Semester Hours **66**

A Certificate of Technology may be earned by those who do not wish to pursue an associate's degree. See the department chair for further details. See BCT page 25

Maintenance Technology Courses

MAIN 1402 Plumbing Fundamentals
(2-4) ..... 4 hours
Presents theory and application of basic plumbing technology. Involves practical instruction in both new construction and repair work. Students learn blueprint interpretation, basic calculations, and customer relations. Students will size D.W.V. and water systems. Includes preparation for students interested in obtaining a state plumbing license. Lab fee required. (SCANS 1,3,5,8) Prerequisite: None.

MAIN 2377 Cooperative Work Experience
(1-20) ..... 3 hours
A capstone course designed to interrelate academic and vocational course lectures and labs with business and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem-solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 4,7,9,10,11) Prerequisite: Sophomore standing and consent of department chair.

ELEC 2410 National Electrical Code
(3-3) ..... 4 hours
Presents applications of the National Electrical Code for industrial, commercial, and residential wiring. Emphasis is placed on designing, constructing, and troubleshooting electrical systems. The electrical lab will enable the student, along with a lab partner, to choose the materials, tools, equipment, and procedures necessary to identify, construct and troubleshoot electrical circuitry. (SCANS 5,8,9) Lab fee required. Prerequisite: None.

HVAC 1400 Basic Control Theory (R/AC 1400)
(3-3) ..... 4 hours
Course includes the understanding and interpretation of schematic diagrams and basic electricity technology and progresses to electric motors, design and function of starters, contactors, relays, capacitors, overloads and control circuits applicable to the refrigeration and air conditioning industry. Students will perform mathematical calculations pertaining to OHMS Law and learn to deal with customer expectations. Lab fee required. (SCANS 1,3,5,8) Prerequisite: None. Corequisite: HVAC 1401.

HVAC 1401 Refrigeration Theory (R/AC 1401)
(3-3) ..... 4 hours
Competencies include the technology of heat transfer, behavior of gases, refrigeration cycle, component parts of the compression refrigeration machine and its accessories. Students will learn to understand and interpret charging charts in order to charge systems, recover refrigerant using UL and EPA approved recovery systems. Students will be exposed to customer relations and troubleshooting techniques. Lab fee required. (SCANS 1,5,8,9) Prerequisite: None.

HVAC 1404 Heating (R/AC 1404)
(3-3) ..... 4 hours
Competencies include gas controls, properties of gas and gas piping, gas combustion, burners, troubleshooting, venting of heating systems and electrical strip heat. Presents theories of control and principles of heat pumps, sizing, installing, servicing, and customer relations. Lab fee required. (SCANS 5,8,9) Prerequisite: HVAC 1400.

HVAC 2204 Refrigeration and Air Conditioning System Troubleshooting (R/AC 2204)
(2-0) ..... 2 hours
Competencies prepare students to troubleshoot refrigeration and air conditioning systems using troubleshooting charts as well as dealing with customer's expectations. Emphasizes the mechanical refrigeration system. (SCANS 1,5,7,8,9) Prerequisite: HVAC 1400 and HVAC 1401.

Management

Faculty: Robert Munoz, chair; Connie Nichols, Clinton Forbes (ret.), Paul Tittle (ret.).

The primary objective of the management program is to prepare each student for full-time employment in supervision. The program in the classroom is combined with actual on-the-job experience in the student's chosen career field. The management program is not intended to serve as preparatory work toward a baccalaureate degree. Students planning to pursue a four-year degree should consult the upper-level institution or senior college of their choice regarding transferability of courses.

Management students will be required to take a total of 15 hours of management core classes. In addition students will choose a total of 24 hours of electives from a pool of management courses. This allows students, along with their faculty advisor, the flexibility to design a program specific to their individual career objectives.

Many businesses, both large and small, actively seek graduates of associate degree programs. The shortage of promotable people in supervisory and middle-management ranks provides the graduate the opportunity for a challenging career with rewarding promotional possibilities.

Course of Study for Associate in Applied Science Degree

Management

	Semester Hrs
General Education Requirements	**21**
ENGL 1301 Composition and Rhetoric [redacted]	3
GOVT 2301 U.S. and Texas Government	3
MATH 1324 Mathematical Analysis for Business I or any other college-level mathematics	3
SPCH 1321 Business & Professional Speech	3
ECON 2301 Principles of Economics I ([redacted]) or Macro	
ECON 2302 Principles of Economics II ([redacted]) .Micro	3
BCIS 1401 Introduction to Computer Information Systems	4
*PHED (Any two one-hour activity courses)	2

Elective — (must be outside the major area) 3

Major Requirements for All Management Majors 15
- MGMT 1301 Introduction to Management 3
- MGMT 1302 Managerial Functions 3
- MGMT 2304 Personnel and Human Relations 3
- MGMT 2377 Cooperative Work Experience 3
- MGMT 2378 Cooperative Work Experience 3

***MGMT (Approved management electives)** 24

Total Semester Hours 63

***Students will select courses from the following pool.**

- MGMT 1321 Principles of Marketing 3
- MGMT 1323 Principles of Personal Selling 3
- MGMT 1331 Principles of Retailing 3
- MGMT 1341 Introduction to Fashion Merchandising 3
- MGMT 1343 Development of Fashion 3
- MGMT 1361 Principles of Production Supervision 3
- MGMT 1362 Industrial Safety 3
- MGMT 1371 Introduction to Purchasing Management 3
- MGMT 2300 Management Issues 3
- MGMT 2301 Management Skills Development 3
- MGMT 2303 Introduction to Public Relations 3
- MGMT 2305 Internationalization of Business 3
- MGMT 2320 Marketing Issues 3
- MGMT 2322 Marketing Management 3
- MGMT 2325 Effective Advertising 3
- MGMT 2330 Entrepreneurial Issues 3
- MGMT 2332 Small Business Management 3
- MGMT 2341 Visual Merchandising and Display 3
- MGMT 2343 Fashion Buying 3
- MGMT 2344 Fashion Promotion 3
- MGMT 2345 Fashion Design 3
- MGMT 2365 Introduction to Business Logistics 3
- MGMT 2371 Purchasing Practices 3

A Certificate of Technology in Management may be earned by those who do not wish to pursue an associate degree.

Certificate of Technology Management

General Education Core 13
- ENGL 1301 Composition and Rhetoric [redacted] 3
- SPCH 1321 Business and Professional Speech 3
- MATH 1324 Mathematical Analysis for Business I [redacted] 3
- BCIS 1401 Introduction to Computer Information Systems 4

Technical Core 15
- MGMT 1301 Introduction to Management 3
- MGMT 1302 Managerial Functions 3
- MGMT 1321 Principles of Marketing 3
- MGMT 2301 Management Skills Development 3
- MGMT 2304 Personnel and Human Relations 3

Total Hours 28

Management Courses

MGMT 1301 Introduction to Management
(3-0) .....3 hours
Presents essentials of management. Includes an introduction to the behavioral approach and application of management principles as related to the first-line supervisor. Covers human resources, workflow, communications, selection, training, leadership, and professional development. (SCANS 4,5,10,11) Prerequisite: None.

MGMT 1302 Managerial Functions
(3-0) .....3 hours
A continuation of MGMT 1301. This course emphasizes the design and structural aspects of management, in such competencies as planning, organizing, and allocating resources; making decisions regarding such allocations; establishing and communicating systems to monitor the controlling process; and ensuring the legal and ethical conduct of the organization. (SCANS 4,6,9,10,11) Prerequisite: MGMT 1301.

MGMT 1321 Principles of Marketing
(3-0) .....3 hours
Introduces marketing. Analyzes factors that influence functions of marketing and environmental marketing activities. Emphasizes the gathering, processing and interpretation of demographic and other data used in consumer and business-to-business decision making. Covers the development of decision support systems, research and presentation; as well as classification and resource allocation for new product concepts. (SCANS 4,6,7,9,10,11) Prerequisite: None.

MGMT 1323 Principles of Personal Selling
(3-0) .....3 hours
Designed to introduce students to techniques that will prove immediately valuable in present or future selling positions. Emphasizes the interpersonal and organizational aspects of selling through student participation in reasoning and communicating exercises. Provides opportunities for practicing these techniques under realistic conditions. (SCANS 5,6,9,11) Prerequisite: None.

MGMT 1331 Principles of Retailing
(3-0) .....3 hours
Relates modern retailing industry to structure and environment of retailing, requirements of retailing; retail merchandising and sales promotion; and requirements of retailing management including gathering information in order to make decisions regarding legal and ethical issues, site location, store design, selecting appropriate technology to handle and secure merchandise and establishing pricing policies. (SCANS 3,6,8,9,10) Prerequisite: None.

MGMT 1341 Introduction to Fashion Merchandising
(3-0) .....3 hours
Presents an overview of general field of fashion merchandising. Addresses the flexibility of retail industry. Monitors economic conditions and trends; applies available technology based upon historical cycles and market needs; analyzes and creates systems to solve problems in customer service areas. (SCANS 6,7,8,9) Prerequisite: None.

MGMT 1343 Development of Fashion
(3-0) .....3 hours
Through research of historical data, traces the evolution of fashion from Egyptian times through contemporary markets. Monitors trend cycles used to interpret data in order to make decisions regarding future market investments. Students will create designs representative of specific eras. (SCANS 6,7,9) Prerequisite: None.

MGMT 1361 Principles of Production Supervision
(3-0) .....3 hours
Introduces fundamental concepts of production management. Emphasizes formulation and evaluation of objectives, and the developments of a systems approach to monitor performance. Students will develop problem solving and decision making skills based on the use of available resources to meet customer and organizational production needs. (SCANS 4,5,6,7,9) Prerequisite: None.

MGMT 1362 Industrial Safety
(3-0) .....3 hours
Introduces principles and practices of safety management. Students will acquire knowledge of the legal requirements of the Occupational Safety and Health Act. Includes basic concepts and methods of administering, developing, communicating and teaching of safety programs to meet organizational needs. (SCANS 5,6,9,11) Prerequisite: None.

MGMT 1371 Introduction to Purchasing Management
(3-0) .....3 hours
Presents practices underlying sound procurement of materials, parts, supplies and equipment to conduct a business. Emphasizes meaning, scope, organization and principles of purchasing procedure in relation to business and customer needs while working within legal and ethical aspects of the purchasing function. (SCANS 4,5,9,10,11) Prerequisite: None.

MGMT 2300 Management Issues
(3-0) .....3 hours
Presents current issues of particular interest to those preparing for supervisory positions in today's work force. Emphasis will be on competencies associated with present managerial concerns. Students will research and analyze information and, through the use of group discussion and other forms of participation, will create and present effective solutions to modern management problems/issues. (SCANS 5,6,9,11) Prerequisite: None.

MGMT 2301 Management Skills Development
(3-0) .....3 hours
Examines relationship between management principles and specific functions of management. Presents case studies and projects which will require students to interpret and create responses to various areas of management study: including situational leadership, creativity and innovation; problem solving and decision making. (SCANS 5,6,9).

MGMT 2303 Introduction to Public Relations
(3-0) .....3 hours
Introduces techniques of public relations applied to supervisory and management positions. Emphasizes customer relations. Gives attention to programming a total public relations effort and selecting strategy, media and persuasive devices that accomplish given objectives after having listened to and studied the various constituencies involved. (SCANS 6,9,11) Prerequisite: None.

MGMT 2304 Personnel and Human Relations
(3-0) .....3 hours
Applies field of human relations to modern business management. Emphasizes the productive management of human resources through effective leadership, decision-making and communicating. Explores responsibilities of management in dealing with subordinates one-on-one. (SCANS 5,9,10) Prerequisite: MGMT 1301.

MGMT 2305 Internationalization of Business
(3-0) .....3 hours
Introduces theory and practice in international business. Emphasizes the creation of appropriate systems for maintaining and controlling the flow of goods, people, information and funds for commercial purpose within and among international sovereignties. Stresses the decision-making process. (SCANS 4,5,6,7,9) Prerequisite: Completion of six hours of MGMT courses or consent of the department chair.

MGMT 2320 Marketing Issues
(3-0) .....3 hours
Presents current issues of particular interest to those preparing for positions in today's changing marketplace. Emphasis will be on competencies associated with present marketing concerns. Students will research and analyze information and, through the use of group discussion and through forms of participation, will create and present effective solutions to modern marketing problems/issues. (SCANS 5,6,9,11) Prerequisite: None.

MGMT 2322 Marketing Management
(3-0) .....3 hours
A continuation of MGMT 1321. Emphasizes management of activities associated with marketing and distribution processes and institutions including the allocation of resources for monitoring distribution systems and channels; the creation and delivery of promotional messages and activities; and making decisions regarding various approaches to price determination. (SCANS 3,4,7,9,11) Prerequisite: MGMT 1321.

MGMT 2325 Effective Advertising
(3-0) .....3 hours
Designed to offer an overview of the social, economic and marketing environment for advertising. Examines techniques and skills used to execute effective advertising programs;including information acquisition, resource allocation, delivery system development and budgeting. Emphasizes creativity in decision making and communicating. (SCANS 2,4,6,7,9,11) Prerequisite: MGMT 1321 or MGMT 1331.

MGMT 2330 Entrepreneurial Issues
(3-0) .....3 hours
A comprehensive study of particular issues impacting entrepreneurship. Presents case studies and projects which will require students to acquire and interpret information regarding resources, systems, and existing technology and create responses having analyzed the current marketplace and economic, technologic, legal and social environments affecting small business in the United States. (SCANS 4,6,7,8,9) Prerequisite: None.

MGMT 2332 Small Business Management
(3-0) .....3 hours
Emphasizes management of personnel, operations, inventory and other resources of the small business enterprise. Students will create a written business plan detailing the personal qualities needed to succeed as well as systems developed to monitor use of needed human and physical resources. (SCANS 2,4,5,7,10) Prerequisite: MGMT 2330 or consent of the department chair.

MGMT 2341 Visual Merchandising and Display
(3-0) .....3 hours
Trains students in techniques of visual display. Presents analysis and evaluation of various types of displays to develop competency in understanding components of visual presentations. Requires practice applications in retail stores based on available merchandise and promotional needs. Involves written design of store floor plan for display program, with attention to traffic patterns and construction limitations. (SCANS 2,4,7) Prerequisite: MGMT 1341 or MGMT 1343.

MGMT 2343 Fashion Buying
(3-0) .....3 hours
Presents fundamentals of effective buying as related to fashion retailing. Gives attention to target market variables, estimation of demand, and availability of inventory resources within budgetary constraints. Examines technology and systems used for inventory control. Requires written plan for inventory depth and purchasing, including calculations. (SCANS 2,3,4,7,8) Prerequisite: None

MGMT 2344 Fashion Promotion
(3-0) .....3 hours
Focuses on individual promotional elements necessary for effective retailing of fashion. Emphasizes the relationship between target market preference, personal selling, visual display, advertising and special events. Encourages creative development of promotional plans within projected budgets and boundaries of social/cultural acceptance. Practices written promotional releases for media consideration and develops long-range campaigns for increased retail sales. (SCANS 2,4,5,9,10) Prerequisite: None

MGMT 2345 Fashion Design
(3-0) .....3 hours
Gives in-depth analysis of fashions from perspective of the designer's concern for fabrics, color, cost and organizing of seasonal lines. Encourages individual creation of garment from concept to construction. Examines technology limitations and style constraints. (SCANS 4,8,9) Prerequisite: MGMT 1341 or MGMT 1343.

MGMT 2365 Introduction to Business Logistics
(3-0) .....3 hours
Presents a systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing and material handling. Emphasizes the acquisition and evaluation of information in order to develop sound decision making techniques based on time, materials and space available in order to meet business and customer needs. (SCANS 4,5,6,7,9) Prerequisite: None.

MGMT 2371 Purchasing Practices
(3-0) .....3 hours
Designed to develop student's knowledge and skills of merchandise and material procurement procedures. Gives attention to improvement of planning, policies and procedures applicable to organizational purchasing practices. Students will identify concepts and problems in purchasing and merchandising management. (SCANS 4,5,6,7,9) Prerequisite: MGMT 1371.

MGMT 2377 Cooperative Work Experience
(1-20) .....3 hours
A capstone course designed to interrelate academic and technical course lectures and labs with on-the-job business problems, modern business practices, human relations, and job-finding techniques. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem-solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

MGMT 2378 Cooperative Work Experience
(1-20) ..... 3 hours
A continuation of MGMT 2377. A capstone course designed to interrelate academic and technical course lectures and labs with on-the-job business problems, modern business practices, human relations, and job-finding techniques. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem-solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of the department chair.

Mass Communication

Faculty: John McCarroll, chair; Tom Hughes, Wallace Jackson (ret.), Tracy Taylor.

Mass communication students at Odessa College enroll mainly for three purposes: to prepare for university transfer; to prepare themselves vocationally for a career; and to broaden their exposure to the mass media.

Requirements for the Associate in Arts Degree are basically the same as required courses taken during the first two years at senior colleges and universities. However, students are responsible for becoming aware of the particular requirements of the school to which they plan to transfer.

To offer students an opportunity to gain valuable experience while attending college, Odessa College operates a public radio station, KOCV-FM, and a public television station, KOCV-TV. Practicums also help give on-site professional experience to the mass communication student.

Course of Study for Associate in Arts Degree

Broadcasting

	Semester Hrs
General Education Requirements	**49**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
MATH 1314 College Algebra or MATH 1332 Structures of College Mathematics I	3
Foreign Language or Science (six to eight hours in same discipline)	8
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Philosophy, Psychology Sociology, Anthropology or Economics courses	6
*PHED (Any two one-hour activity courses)	2
General Education Elective	3
Elective (must be outside major area)	**3**

Major Requirements **12**
(Choose from among the following)
- COMM 1307 Introduction to Mass Communications 3
- COMM 1335 Survey of Radio and Television 3
- COMM 1336 Television Production 3
- COMM 2303 Audio and Radio Production 3
- COMM 2331 Announcing for Radio and Television 3
- COMM 2339 Writing for Radio and Television 3
- COMM 2120 Practicum in Electronic Media 1
- COMM 2121 Practicum in Electronic Media 1
- COMM 2122 Practicum in Electronic Media 1
- COMM 2220 Practicum in Electronic Media 2
- COMM 2324 Practicum in Electronic Media 3
- COMM 2325 Practicum in Electronic Media 3
- COMM 2326 Practicum in Electronic Media 3

Total Semester Hours **64**

**PHED 1100 should be the first course taken in physical education.*

Course of Study for Associate in Arts Degree

Mass Communication

Semester Hrs

General Education Requirements **49**
- ENGL 1301 Composition and Rhetoric 3
- ENGL 1302 Composition and Literature 3
- ENGL (Sophomore Level) 6
- HIST 1301 U.S. History to 1877 3
- HIST 1302 U.S. History from 1877 3
- GOVT 2301 U.S. and Texas Government 3
- GOVT 2302 American National Government 3
- MATH (College level) 3
- Foreign Language or Science (six to eight hours in same discipline) 8
- SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech 3
- Philosophy, Psychology Sociology, Anthropology or Economics courses 6
- *PHED (Any two one-hour activity courses) 2

General Education Elective **3**

Elective (must be outside major area) **3**

Major Requirements **12**
(Choose from among the following)
- COMM 1307 Introduction to Mass Communications 3
- PHOT 1331 Basic Photography I 3
- COMM 1335 Survey of Radio and Television 3
- COMM 1336 Television Production 3
- PHOT 1350 Photojournalism 3
- COMM 2303 Audio and Radio Production 3

Total Semester Hours **64**

**PHED 1100 should be the first course taken in physical education.*

Mass Communication Courses

COMM 1307 Introduction to Mass Communications
(3-0) ..... 3 hours
Surveys basic facets affecting human interaction through mass communications. This course is designed to develop understanding of the interrelationships of the mass media in society and to help project the future of communication in an ever changing world. (SCANS 6,7,9) Prerequisites: TASP competency in reading and writing or consent of instructor.

COMM 1335 Survey of Radio and Television
(3-0) ..... 3 hours
Examines the development, regulation, economics, social responsibilities and industry practices in broadcasting and cable communication, non-broadcast television, new technology and other communication systems. (SCANS 6,7,8) Prerequisites: TASP competency in reading and writing or consent of instructor.

COMM 1336 Television Production
(3-0) ..... 3 hours
Presents practical experience in the operation of television studio and control room equipment, with an emphasis on production. Includes pre-production techniques, student involvement in direction and assignments to all crew positions for class productions. (SCANS 5,6,8,11) Prerequisites: TASP competency in reading and writing or consent of instructor.

COMM 2303 Audio/Radio Production
(3-0) ..... 3 hours
Presents the concepts and techniques of sound production, including the coordinating and directing of all aspects of sound production from the design of the production to the finished product, with emphasis on the manipulation of equipment and sound sources and direction of talent. (SCANS 6,8,9) Prerequisites: COMM 1307 or COMM 1335 or consent of instructor; TASP competency in reading and writing or consent of instructor.

COMM 2331 Announcing for Radio and Television
(3-0) ..... 3 hours
Helps prepare the student for a career in voice talent for radio and television. Includes proper pronunciation, articulation, interviewing, reading of news and commercial copy and announcing music and sports. (SCANS 1,6,9,11) Prerequisites: COMM 1307 or COMM 1335 or consent of instructor; TASP competency in reading and writing or consent of instructor.

COMM 2339 Writing for Radio and Television
(3-0) ..... 3 hours
Provides techniques and practical exercises in presenting effective communication of messages through radio and television. Presents procedures for writing commercial, public service, promotional, news and documentary programming. (SCANS 2,6,7,9,11). Prerequisites: COMM 1307 or COMM 1335 or consent of instructor; TASP competency in reading and writing or consent of instructor; ability to type approximately 30 words per minute.

COMM 2120,2121,2122 Practicum in Electronic Media
(0-5) ..... 1 hour each
Provides framework for student participation at KOCV-FM, the college radio station. Requires working as a team member for a minimum of five hours per week at the station and attending a weekly staff meeting designed to keep students abreast of happenings at the station and in the industry. (SCANS 5,8,9,10,11) Lab fee required. Prerequisites: COMM 1307 or COMM 1335 or consent of the KOCV-FM station manager; TASP competency in reading and writing or consent of instructor.

COMM 2220 Practicum in Electronic Media
(1-8) (eight weeks) ..... 2 hours
This Radio Option practicum is designed to allow students to tailor their Odessa College experience to their future career goals in audio/radio. Students may choose practicum experience at various local radio stations or produce specific projects. (SCANS 5,8,9,10,11) Lab fee required. Prerequisites: TASP competency in reading and writing or consent of instructor; successful completion or current enrollment in another broadcasting course and approval of the faculty advisor and prospective practicum site management.

COMM 2324 Practicum in Electronic Media
(1-10) (eight weeks) ..... 3 hours
This Radio Option practicum is designed to allow students to tailor their Odessa College experience to their future career goals in audio/radio. Students may choose practicum experience at various local radio stations or produce specific projects. (SCANS 5,8,9,10,11) Lab fee required. Prerequisites: TASP competency in reading and writing or consent of instructor; successful completion or current enrollment in another broadcasting course and approval of the faculty advisor and prospective practicum site management.

COMM 2325 Practicum in Electronic Media
(1-10) (eight weeks) ..... 3 hours
This Television Option practicum is designed to allow students to tailor their Odessa College experience to their future career goals in television/video production. Students may choose practicum experience at various local television stations or produce specific projects. (SCANS 5,8,9,10,11) Lab fee required. Prerequisites: TASP competency in reading and writing or consent of instructor; successful completion or current enrollment in another broadcasting course and approval of the faculty advisor and prospective practicum site management.

COMM 2326 Practicum in Electronic Media
(1-10) (eight weeks) ..... 3 hours
This Television Option practicum is designed to allow students to tailor their Odessa College experience to their future career goals in television/video production. Students may choose practicum experience at various local television stations or produce specific projects. (SCANS 5,8,9,10,11) Lab fee required. Prerequisite: TASP competency in reading and writing or consent of instructor; successful completion or current enrollment in another broadcasting course and approval of the faculty advisor and prospective practicum site management.

Mathematics

Faculty: George Brewer, chair; Jim Camp, Dr. James Fields, Robert Keating, Stephanie Kern, Rosana Maldonado, Yancy Nunez, Dr. Glynna Strait, Dr. Charles Sweatt.

The Department of Mathematics is guided by the following objectives: (1) pre-professional training for mathematicians and teachers of mathematics; (2) preparation of students for further study of science, engineering, industry and business; (3) adequate mathematical training for students in occupational-technical programs; (4) mathematical offerings suitable for the student seeking a well-balanced, liberal education and (5) provision for students seeking to remove deficiencies or desiring to refresh their knowledge from previous training. Students are responsible for checking the catalog of the senior college or university to which they plan to transfer to determine which of these courses are compatible with that institution's degree plan.

Course of Study for Associate in Science Degree

Mathematics

	Semester Hrs
General Education Requirements	**41**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
SPCH 1315 Public Speaking	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
Lab Science	12
*PHED (Any two one-hour activity courses)	2
Elective (must be outside major area)	**3**
Major Requirements	**18**
**MATH 1348 Analytic Geometry	3
MATH 2313 Calculus I	3
MATH 2314 Calculus II	3
MATH 2315 Calculus III	3
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
Related Requirements	**4**
CIS 2406 Fortran 77-Scientific	4
Total Semester Hours	**66**

**PHED 1100 should be the first course taken in physical education.*

***Students not prepared for MATH 1348 Analytic Geometry should enroll in MATH 1316 Plane Trigonometry or a lower-level math course before enrolling in MATH 1348. Preregistration testing is available for placement aid for students planning to take MATH 0371, MATH 0372, TMTH 1370 ,MATH 0375, MATH 1371, MATH 1372 MATH 1314 or MATH 1332.*

Mathematics Courses

MATH 0171 Fundamental Math
(0-1) ..... 1 hour
Provides a review of Fundamental Mathematics. Presents the use of number concepts and computation skills. Includes solving word problems using integers, fractions and decimals as well as percents, ratios and proportions. Includes how to interpret information from a graph, table or chart and use measure of central tendency, and variability. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0172 Algebra — Graphing and Equations
(0-1) ..... 1 hour
Provides a review of algebra — graphing and equations. Presents graphs of numbers and number relationships. Introduces how to solve one- and two-variable equations including word problems. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0173 Algebra — Operations and Quadratics
(0-1) ..... 1 hour
Provides a review of algebra — operations and quadratics. Presents operations with algebraic expressions. Investigates problems involving quadratic equations, inequalities and their graphs. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0174 Geometry and Problem Solving
(0-1) ..... 1 hour
Provides a review of Geometry and Reasoning. Presents problems involving geometric figures, investigates how to apply reasoning skills and apply combinations of mathematical skills to solve problems. The student will learn to prioritize time and develop self discipline in this self-paced course as well as learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. (SCANS 3,4,8,9) Prerequisite: Consent of the instructor.

MATH 0371 Basic Mathematics (MATH 1311)
(3-0) ..... 3 hours
Presents four fundamental operations of addition, subtraction, multiplication and division of whole numbers, common fractions and decimal fractions. Includes percentages, metric system and geometric measurements. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: None.

MATH 0372 Introductory Algebra (MATH 1313)
(3-0) ..... 3 hours
Introduces elementary algebra with some arithmetic review. Includes signed numbers, polynomial multiplication and division, factoring, linear and quadratic functions and word problems. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: MATH 0371 or satisfactory placement score.

TMTH 1370 Technical College Mathematics
(3-0) ..... 3 hours
A study of skills, topics and techniques necessary to solve problems applicable to occupational and technical fields. Topics covered will include: Measurement, applied geometry, algebra, graphs and right angle trigonometry. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course is for Technical Certificate programs and will not count toward an associate degree. (SCANS 3,8,9) Prerequisite: MATH 0372 or High School Algebra I or satisfactory placement score.

MATH 0373 Elementary Mathematics of Finance (MATH 1315/1321)
(3-0) .....3 hours
Develops skills in real number and algebraic operations with particular application to business and accounting problems. Includes percent, interest, annuities, insurance, payroll, taxes, depreciation, financial statements, profit distribution, graphs and basic statistics. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted for credit by all senior colleges. (SCANS 3,8,9) Prerequisite: MATH 0372 or equivalent placement score.

MATH 0375 Intermediate Algebra (MATH 1335)
(3-0) .....3 hours
A study of real number operations, linear and quadratic inequalities, exponents and radicals, rational expressions, the straight line, linear equations and parabolas. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. This course does not satisfy requirements for any degree plan at Odessa College and may not be accepted for credit by all senior colleges. Placement testing available. (SCANS 3,8,9) Prerequisite: MATH 0372, satisfactory placement score or passing score on TASP.

MATH 1314 College Algebra (MATH 1341) ✓
(3-0) .....3 hours
Includes sets, complex numbers, quadratic and quadratic form equations, inequalities, functions, systems of equations and topics selected from logarithmic functions, matrices, determinants, binomial theorem, math induction and sequences and series. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. Placement testing available. (SCANS 3,8,9,11) Prerequisite: MATH 0375 passed with a "C" or better, high school algebra II, or an independent school district/OC concurrent enrollment form..

MATH 1316 Plane Trigonometry (MATH 1343)
(3-0) .....3 hours
Presents trigonometric functions, formulas, solutions of right triangles and applications, variations of functions with changes in angles, trigonometric equations, identities, solutions of oblique triangles and applications, logarithmic functions, inverse functions and complex numbers. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite or corequisite: MATH 1314 or equivalent competency, or an independent school district/OC concurrent enrollment form.

MATH 1324 Mathematical Analysis for Business I (MATH 1317)
(3-0) .....3 hours
Develops quantitative methods of analysis for business problems. Includes study of set theory, symbolic logic, mathematical relationships, vectors and matrices, break-even interpretations, linear programming, probability and expected value as aids in formulating business decisions. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. (SCANS 3,8,9) Prerequisite: MATH 0375 passed with a C or better, high school algebra II, or equivalent competency.

MATH 1325 Mathematical Analysis for Business II (MATH 1318)
(3-0) ..... 3 hours
Includes elementary calculus of differentiation, integration and application. Emphasizes application to business and economic problems. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 1324.

MATH 1332 Structures of College Mathematics I
(3-0) ..... 3 hours
Topics covered will include sets, logic, number systems, relations and applications, concepts of mathematics and problem solving. The student will learn to select appropriate mathematical techniques and technologies and use these skills in problem solving. Students will develop and/or discover mathematical relationships. This course is designed primarily for liberal arts and education majors. (SCANS 3,8,9,11) Prerequisite: MATH 0372 or High School Algebra I or satisfactory placement score.

MATH 1333 Structures of College Mathematics II
(3-0) ..... 3 hours
Topics covered will include algebra, geometry, measurement, and an introduction to probability and statistics. The student will learn to select appropriate mathematical techniques and technologies and use these skills in problem solving. The students will develop and or discover mathematical relationships. This course is designed primarily for liberal arts and education majors. (SCANS 3,8,9,11) Prerequisites: MATH 1332 or MATH 0375 or satisfactory placement score.

MATH 1342 Mathematical Statistics (MATH 1361)
(3-0) ..... 3 hours
Introduces elements of statistics. Includes frequency distributions, measures of central tendency, elementary probability, binomial distribution, measures of variation, normal distributions, random sampling, tests of significance, t-test and chi-square test. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. Recommended for students in education, social science and physical science as well as mathematics. (SCANS 3,6,8,9) Prerequisite: MATH 0375 passed with a "C" or better or satisfactory placement score.

MATH 1348 Analytic Geometry (MATH 1345)
(3-0) ..... 3 hours
Presents fundamental concepts, straight line, circle, conics, simplification of equations, algebraic curves, transcendental curves, polar coordinates, parametric equations and other concepts. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 1316 or equivalent, or completed Independent School District/OC concurrent enrollment form.

MATH 1371 College Algebra for Business (MATH 1316)
(3-0) ..... 3 hours
Provides introduction to sets, functions and the algebraic number system. Includes inequalities, variation, logarithms, probability, determinants and quadratics. Presents problem solving by using business and decision-making techniques. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. (SCANS 3,8,9) Prerequisite: MATH 0375 or equivalent placement score.

MATH 1372 Technical College Algebra
(3-0) ..... 3 hours
A study of principles and methods of college algebra to solve physical problems in technical fields. Topics will include: algebra, graphing, exponential and logarithmic functions and applied trigonometry. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others (SCANS 3,8,9,11) Prerequisite: MATH 0375 or TMTH 1370 or satisfactory placement score.

MATH 1442 Business Statistics (MATH 2401)
(3-3) ..... 4 hours
Provides introduction to techniques of collection, presentation analysis and interpretation of numerical data. Stresses application of correlation methods, analysis of variance, dispersion, sampling, quality control, reliability, mathematical models and programming. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. (SCANS 3,6,8,9) Prerequisite: MATH 1324.

MATH 2313 Calculus I (MATH 2331)
(3-0) ..... 3 hours
Presents study of rate of change of functions, limits, derivatives of algebraic and trigonometric functions, integration and applications. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite or corequisite: MATH 1348.

MATH 2314 Calculus II (MATH 2333)
(3-0) ..... 3 hours
Extends topics of MATH 2313 to include differentiation and integration of a wider class of functions, to include transcendental functions. Also includes application of these processes to solutions of a wider range of problems including moments and mass. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 2313.

MATH 2315 Calculus III (MATH 2335)
(3-0) ..... 3 hours
Presents study of sets, functions, vector fields, partial derivatives, power series and integration theory. Includes a study of line, surface and multiple integrals. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and perhaps describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 2314.

MATH 2318 Linear Algebra (MATH 2334)
(3-0) ..... 3 hours
Presents study of vector spaces, linear transformations, matrix algebra, eigenvalues, eigenvectors and applications. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 2314.

MATH 2320 Differential Equations (MATH 2351)
(3-0) .....3 hours
A study of equations of order one, linear differential equations, non-homogeneous equations, differential operators, the Laplace transform, inverse transforms, applications, equations of order one and higher degree and inverse differential operators. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning and problem solving. The student should be able to probe for mathematical meaning and, perhaps, describe these meanings to others. (SCANS 3,8,9,11) Prerequisite: MATH 2314.

Medical Lab Technology *(see Clinical Laboratory Sciences)*

Medical Careers

Medical Advisors: Dr. E. Don Taylor; Dr. John Lesmeister.

Odessa College offers the core courses necessary for application to allied and professional medical programs in the state of Texas. Below are a few of the more popular pre-medical majors with their required pre-professional courses. The medical advisors listed above have detailed information concerning many of the pre-medical careers, and you, as a student, are encouraged to make contact with one of these advisors early in your Odessa College work.

Medicine:

There are eight medical schools in Texas, with about 1200 chairs per year enrollment. The student must complete at least 90 college hours, and usually a bachelors degree, prior to application to these schools. There is no specified major, but the required courses must include the courses and credits summarized below:

Biology	2 years with laboratories
Chemistry	1 year of freshman inorganic with laboratory
	1 year of organic with laboratory
Physics	1 year of college physics with laboratory
Calculus	3 semester hours (statistical mathematics also recommended)
English	1 year
Behavioral	6 hours behavioral science for TCOM
Biochemistry	3 hours for UT Houston

The science courses are the courses required of science majors; be sure that your course is a Coordinating Board approved course, or it might not transfer for the required course. There is also an entrance exam (MCAT) that is required for application. Please see your advisor for specifics.

Dentistry:

There are three dental schools in Texas, with about 250 chairs per year for enrollment. All three schools have a four-year professional curriculum and require completion of at least 60 college hours prior to application. The required courses include the following:

Chemistry	8 hours of general or inorganic with laboratories
	8 hours of organic with laboratories
Physics	8 hours of college physics with laboratories
Biology	8 hours of freshman with laboratories, but 16 to 20 hours recommended
English	6 hours

There is also a national exam (DAT) that is required for application. It is possible to gain entrance at your junior year, but a baccalaureate degree is highly desirable. Please see the medical advisors for specific information about the dental schools.

Occupational Therapy:

Currently, Occupational Therapy requires four years of college study leading to a Bachelor of Science degree. The first two years include 60 - 70 hours of preprofessional course work, which can be taken at Odessa College. The student must then be accepted into a professional program and complete 22 - 24 months of intensive training. There are four schools in Texas offering this degree. The course requirements vary considerably with the four schools, so it is recommended that you see one of the medical advisors and obtain a copy of the current requirements.

Physical Therapy:

The Physical Therapy programs in Texas are in a state of change currently. The degree is currently changing from a bachelors to masters. There are currently seven programs admitting students, generally after completion of 70 credits toward a bachelors degree. The required course work for application varies from school to school, so please see one of the medical advisors for current course requirements concerning the schools.

Optometry:

The only optometry school in Texas is at the University of Houston. The school requires completion of 90 hours of college course work prior to application, but a bachelors degree must be completed after enrollment. Most students enter with the bachelors degree. The required courses must include:

Mathematics	7 hours including calculus
Physics	8 hours with laboratory
Biology	8 hours introductory with laboratories
	4 hours microbiology/bacteriology
	4 hours human anatomy
	4 hours animal or human physiology
Chemistry	8 hours general or inorganic with laboratories
	4 hours organic with laboratory
	3 hours biochemistry
Psychology	3 hours
Statistics	3 hours

The science courses are generally the courses required of science majors. Be sure your class is a Coordinating Board approved class. See the campus medical advisors for specific information concerning this major.

Pharmacy:

There are three programs in Texas and one in Oklahoma that are available for your application. All of the schools are currently changing from a bachelors degree to a Phar-D. Since there is so much change in these programs, it is suggested that you see the campus medical advisors for current information concerning required courses.

Veterinary Medicine:

The only college of veterinary medicine in Texas is at Texas A & M University. The minimum requirement for veterinary college enrollment is completion of 64 hours including:

Nutrition	3 hours
Biochemistry	3 hours
Biology	4 hours introductory with laboratory
	4 hours microbiology with laboratory
	3 hours genetics
Chemistry	8 hours general or inorganic with laboratories
	4 hours organic with laboratory
Physics	8 hours with laboratories
Mathematics	3 hours calculus or statistics
English	3 hours composition and rhetoric
	3 hours literature
	3 hours technical writing
	3 hours speech

Only courses required for science majors will be accepted, so be sure your class is a Coordinating Board approved class. There is also a national exam (MCAT or GRE) that is required for application. Please see your campus medical advisors for current information.

There are required GPAs and exams for entrance into all of the medical programs. Each program also has its own protocol as to its application. Please see your campus medical advisors for current information. These advisors are also your best source for letters of recommendation, so get to know them.

The advisors have detailed handouts for the above programs and:

Summer Program for Minority and Disadvantaged Students
Admission tests
The Application
Health Professions Evaluations
Interviewing at Professional Schools
Chiropractic
Cytotechnology
Dental Hygiene
Medical Records Administration
Medical Technology
Physician Assistant
Podiatric Medicine
Public Health
Registered Nursing
Respiratory Care

Metal Trades Technologies

Faculty: Duane Nobles, chair.

Course of Study for Associate in Applied Science Degree

Metal Trades Technologies

Two options are available to students in the Metal Trades Technologies Program.

The Industrial Machinist option is designed to provide students a broad background of basic knowledge in the field of mechanical design and production. Skills are developed in the operation of machine tools, in layout and in blueprint reading so as to provide students with sufficient knowledge for entry employment in the trade.

The Industrial Welding option provides the student with sufficient skill in electric arc and gas welding procedures for entry employment in these occupations. Students completing the associate degree program will have sufficient background in mathematics, communications, blueprint reading, and layout to interpret engineers' plans and instructions, and to work as a supporting technician with minimum orientation.

	Semester Hrs
General Education Requirements for all options	**17**
ENGL 1301 Composition and Rhetoric	
or ENGL 1312 Report Writing (Report Writing is not an option for welding; only for machinist)	3
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	
COSC 1301 Introduction to Computer Systems	3
HIST 1301 U.S. History to 1877	3

	Semester Hrs
MATH 1372 Technical College Algebra or	
MATH 1314 College Algebra or	
MATH 1371 College Algebra for Business	3
PHED (Any two one-hour activity courses)*	2
Elective (must be outside major area)	3

Not an option for welding; only for machinist

** PHED 1100 should be the first course taken in physical education.*

Technical Core	18
PETR 1300 Petroleum Overview	3
DRAF 1401 Technical Drafting I	4
WELD 1401 General Welding	4
MACH 1401 Basic Machine Shop Fundamentals	4
OSHA 2395 Industrial Safety	3
Total Semester Hours	41

and one of the following two options

Industrial Machinist Option

Major Requirements	27
MACH 1402 Machines and Their Operations I	4
MACH 1403 Machines and Their Operations II	4
MACH 2401 Advanced Machine Tool Operations I	4
MACH 2402 Advanced Machine Tool Operations II	4
MACH 2403 Metallurgy	4
MACH 2404 Computerized Numerical Control (CNC)	4
MACH 2377 Cooperative Work Experience	3

Industrial Welding Option

Major Requirements	27
WELD 1402 Intermediate Shielded-Metal Arc Welding	4
WELD 1403 Basic Layout	4
WELD 2401 Advanced Shielded-Metal Arc Welding	4
WELD 2402 Gas Metal Arc Welding	4
WELD 2403 Metallurgy	4
WELD 2404 Gas Tungsten Arc Welding	4
WELD 2377 Cooperative Work Experience	3

Certificates of Technology in Metal Trades Technologies

Certificates of Technologies are available in the following job-specific fields. See the program chairman for course requirements and Permian Basin job opportunities.

Machinist Option

COSC 1301 Introduction to Computer Systems	3
ENGL 1312 Report Writing	3
TMTH 1370 Technical College Mathematics or higher level math	3
DRAF 1401 Technical Drafting I	4
WELD 1401 General Welding	4
MACH 1401 Basic Machine Shop Fundamentals	4
MACH 1402 Machines & Their Operations	4
MACH 2401 Advanced Machine Tool Operations I	4
MACH 2403 Metallurgy	4
MACH 2404 Computerized Numerical Control	4
Total Semester Hours	37

ENGL 1312 Report Writing 3

Machine Shop Foreman Option

COSC 1301 Introduction to Computer Systems 3
TMTH 1370 Technical College Mathematics or
higher level math 3
WELD 1401 General Welding 4
DRAF 1401 Technical Drafting I 4
MACH 1401 Basic Machine Shop Fundamentals 4
MACH 1402 Machines & Their Operations 4
MACH 1403 Machines and Their Operations 4
MACH 2401 Advanced Machine Tool Operations I 4
MACH 2402 Advanced Machine Tool Operations II 4
MACH 2403 Metallurgy 4
MACH 2404 Computerized Numerical Control 4
OSHA 2395 Industrial Safety 3

Total Semester Hours 48

Computerized Numerical Control Programmer Option

COSC 1301 Introduction to Computer Systems 3
ENGL 1312 Report Writing 3
MATH 1314 College Algebra or
MATH 137[redacted] College Algebra For Business 3
DRAF 1401 Technical Drafting I 4
MACH 1401 Basic Machine Shop Fundamentals 4
MACH 2404 Computerized Numerical Control 4

Total Semester Hours 21

Milling Machine Operator Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or
higher level math 3
DRAF 1401 Technical Drafting I 4
MACH 1401 Basic Machine Shop Fundamentals 4
MACH 1402 Machines & Their Operations 4
MACH 1403 Machines and Their Operations 4
MACH 2401 Advanced Machine Tool Operations I 4

Total Semester Hours 37

Engine Lathe Operator Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or
higher level math 3
DRAF 1401 Technical Drafting I 4
MACH 1401 Basic Machine Shop Fundamentals 4
MACH 1402 Machines & Their Operations 4
MACH 2401 Advanced Machine Tool Operations I 4

Total Semester Hours 22

General Welder Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or
higher level math 3
DRAF 1401 Technical Drafting I 4
WELD 1401 General Welding 4
WELD 1402 Intermediate Shielded-Metal Arc Welding 4

Total Semester Hours 18

Fitter Welder Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or higher level math 3
DRAF 1401 Technical Drafting I 4
WELD 1401 General Welding 4
WELD 1402 Intermediate Shielded-Metal Arc Welding 4
WELD 1403 Basic Layout 4

Total Semester Hours 22

Certified Welder Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or higher level math 3
DRAF 1401 Technical Drafting I 4
WELD 1401 General Welding 4
WELD 1402 Intermediate Shielded-Metal Arc Welding 4
WELD 2401 Advanced Shielded-Metal Arc Welding 4
WELD 2404 Gas Tungsten Arc Welding 4

Total Semester Hours 26

Pipe Welding Foreman Option

ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or higher level math 3
DRAF 1401 Technical Drafting I 4
WELD 1401 General Welding 4
WELD 1402 Intermediate Shielded-Metal Arc Welding 4
WELD 1403 Basic Layout 4
WELD 2401 Advanced Shielded-Metal Arc Welding 4
WELD 2402 Gas Metal Arc Welding 4
WELD 2404 Gas Tungsten Arc Welding 4

Total Semester Hours 34

Welding Machine Operator Option

COSC 1301 Introduction to Computer Systems 3
ENGL 1312 Report Writing 3
TMTH 1370 Technical College Mathematics or higher level math 3
DRAF 1401 Technical Drafting I 4
WELD 1401 General Welding 4
WELD 1402 Intermediate Shielded-Metal Arc Welding 4
WELD 1403 Basic Layout 4
WELD 2401 Advanced Shielded-Metal Arc Welding 4
WELD 2402 Gas Metal Arc Welding 4
WELD 2403 Metallurgy 4
WELD 2404 Gas Tungsten Arc Welding 4
OSHA 2395 Industrial Safety 3

Total Semester Hours 44

Machine Technology Courses

MACH 1401 Basic Machine Shop Fundamentals
(2-6) ..... 4 hours
Covers the basics of machine shop practices, trade terminology, shop safety, shop operations, semi-precision and precision measuring tools, hand tools and high speed tooling. Students will perform basic calculations, select and acquire materials, and apply appropriate machine shop technology to complete the assigned tasks. Students will learn problem solving techniques and be responsible for producing quality work. Requires grinding and sharpening single-point cutting tools for simple lathe projects. (SCANS 3,4,8,9,10) Lab fee required. Prerequisite: None.

MACH 1402 Machines and Their Operations I
(2-6) ..... 4 hours
Students will learn to understand and interpret blueprints, and approach practical problems using precision measuring instruments. Students will use a variety of equipment such as, power hacksaw, bandsaw and pedestal grinders. This course stresses advanced lathe operation and set up and requires classroom and laboratory performance to demonstrate maximum machine tool performance. (SCANS 1,3,4,8,9,10) Lab fee required. Prerequisite or corerequisite: MACH 1401 or consent of department chair.

MACH 1403 Machines and Their Operations II
(2-6) ..... 4 hours
This is a follow up course to MACH 1402. Students will enhance their understanding and interpretation of blueprints, and approach practical problems using precision measuring instruments. Students will use a variety of equipment such as milling machines and lathes. Students also will learn to work with customers to satisfy their expectations and promote confidence in their work performance. (SCANS 1,3,4,5,8,9,10) Lab fee required. Prerequisite or corequisite: MACH 1402 or consent of department chair.

MACH 2401 Advanced Machine Tool Operations I
(2-6) ..... 4 hours
This course further enhances the students abilities in the areas of equipment expertise, interpretation of blueprints, acquisition and allocation of materials, problem solving techniques, and working with customers. Students will learn bench metal work and advanced machine tool operations related to the major machine tools such as lathes and milling machines. Emphasizes shapers and grinders. Requires more complex projects and higher performance standards. (SCANS 1,4,5,8,9) Lab fee required. Prerequisite or corequisite: MACH 1403 or consent of department chair.

MACH 2402 Advanced Machine Tool Operations II
(2-6) ..... 4 hours
This is a follow up course to MACH 2401. Competencies stress quality of finished products. Emphasizes production turning with automatic machinery and various machinability factors. (SCANS 1,4,5,8,9) Prerequisite or corequisite: MACH 2401 or consent of department chair.

MACH 2403 Metallurgy
(2-6) ..... 4 hours
This course requires students to understand and interpret the terminology related to the properties and uses of ferrous and nonferrous metals and other alloys, create reports analyzing the specimens, and perform industrial tests to determine alloying elements. Competencies in the use of equipment for the forging and heat-treating of metals, and interpreting the composition of metals according to specification numbers also will be achieved. (SCANS 1,2,6,8) Lab fee required. Prerequisite: None.

MACH 2404 Computerized Numerical Control
(2-6) ..... 4 hours
Presents operations of computerized numerical control (CNC) machines using a variety of hardware and software. Students will understand and interpret the terminology related to programming of CNC equipment and perform calculations for writing programs. Competencies emphasize setup operation, organization of graphs and troubleshooting. Special tasks assigned to meet specific needs. (SCANS 1,3,6,8,9) Lab fee required. Prerequisite: MACH 2402 or consent of department chair.

MACH 2377 Cooperative Work Experience
(2-6) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of department chair.

Welding Technology Courses

WELD 1401 General Welding
(2-6) ..... 4 hours
Introduces the basic competencies of oxy-fuel and electric arc welding. Students will acquire and evaluate information pertaining to the use of torches and regulators, flame adjustment, soldering, silver soldering, brazing, and arc welding on common metals and safe procedures for handling welding equipment. Emphasis is placed on students' ability to acquire and apply new knowledge and skills. (SCANS 6,8,9) Lab fee required. Prerequisite: None.

WELD 1402 Intermediate Shielded-Metal Arc Welding
(2-6) ..... 4 hours
Competencies emphasis the use of welding technology for the proper execution of all-position, V-groove, carbon, steel plate and pipe welding with "open stringer" using mild steel electrodes (E6010). Students will be required to evaluate their performance abilities to troubleshoot potential problems. (SCANS 6,8,9) Lab fee required. Prerequisite or corequisite: WELD 1401 or consent of department chair.

WELD 1403 Basic Layout
(2-6) ..... 4 hours
Competencies emphasize understanding and interpreting blueprints and welding terminology and using basic calculations to determine appropriate layouts according to specifications. Stresses related fittings and structures. Students will be responsible for choosing the proper procedures, tools and equipment to perform assigned actions. (SCANS 1,3,6,8,9) Lab fee required. Prerequisite or corequisite: WELD 1402 or consent of department chair.

WELD 2401 Advanced Shielded-Metal Arc Welding
(2-6) ..... 4 hours
Includes execution of all types of welds on various alloys and a study of electrodes. Continues fabrication, interpretation of blueprints and layout techniques with attention devoted to piping, job planning and cost factors to customers' satisfaction. Emphasizes technology of welding carbon steel plate and pipe with LH 7018 and stainless electrodes. Welds tested by AWS standards. (SCANS 1,3,4,5,8) Lab fee required. Prerequisite: WELD 1402 or consent of department chair.

WELD 2402 Gas Metal Arc Welding
(2-6) ..... 4 hours
Competencies include advanced skills using gas metal arc welding (GMAW) on steel, aluminum and stainless steel. Includes different shield gases. Emphasizes mixture of gases and their effect on arc and welds. Welds tested by AWS standards. Students will learn problem solving techniques specific to GMAW. (SCANS 8,9) Lab fee required. Prerequisite or corequisite: WELD 1401 or WELD 2401 or consent of department chair.

WELD 2403 Metallurgy
(2-6) ..... 4 hours
This course requires students to understand and interpret the terminology related to the properties and uses of ferrous and nonferrous metals and other alloys, create reports analyzing the specimens, and perform industrial tests to determine alloying elements. Competencies in the use of equipment for the forging and heat-treating of metals, and interpreting the composition of metals according to specification numbers also will be achieved. (SCANS 1,2,6,8) Lab fee required. Prerequisite: None.

WELD 2404 Gas Tungsten Arc Welding
(2-6) ..... 4 hours
Competencies include advanced skills using gas tungsten arc welding (GTAW) technology and carbon arc cutting of various metals. Presents advantages and disadvantages of different shield and purge gases. Welds tested by AWS standards. Students will learn problem solving techniques specific to GTAW. (SCANS 8,9) Lab fee required. Prerequisite or corequisite: WELD 1401 or consent of the department chair.

WELD 2377 Cooperative Work Experience
(2-6) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal, and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate. (SCANS 5,7,9,10,11) Prerequisite: Sophomore standing and consent of department chair.

Music

Faculty: Dr. Kathryn Hoppe, chair; Dr. Maurice Alfred (ret.), Lonnie Clark, Randy Talley, Dr. Charlotte Whitaker.

The Odessa College Music Department, offering an Associate of Arts degree in music, provides a high quality academic program and cultural enrichment for all Ector County area residents. Courses and performing organizations supply pre-professional training for the music major, fulfill general education requirements, and offer personal enrichment and enjoyment for area residents. As a service to the community, the department presents performances of faculty, students, and ensembles; hosts area music clinics and competitions; and furnishes performance facilities for area music teachers. The Music Department is an accredited institutional member of the National Association of Schools of Music, a member of the Texas Association of Music Schools and the Texas Music Educators Association.

Course of Study for Associate in Arts Degree

Music

	Semester Hrs
General Education Requirements	**35**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
SPCH 1315 Public Speaking	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
**Foreign Language, Math, or Science	6
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**34**
Freshman Principal Instrument or Voice	4
Sophomore Principal Instrument or Voice	4
Class Piano, Secondary Piano, or Piano Ensemble (Piano Majors)	4
MUSI 1308 and MUSI 1309 Introduction to Music Literature	6
MUSI 1311 and MUSI 1312 Freshman Music Theory	6
MUSI 2311 and MUSI 2312 Advanced Study of Harmony	6
Music Ensemble	4
Total Semester Hours	**72**

**PHED 1100 should be the first course taken in physical education.*
***Six to eight semester hours in same discipline.*

Music Ensemble Courses

MUSI 1121, 1122, 2121, 2122 Concert Band (MU 1101, 1102, 2101, 2102)
(0-3) ..... 1 hour each
Performance oriented course for students with at least high school playing experience. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: None.

MUSI 1131, 1132, 2131, 2132 Jazz Ensemble (MU 1103, 1104, 2103, 2104)
(0-3) ..... 1 hour each
Performance oriented course for students with at least high school playing experience. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: Consent of the instructor

MUSI 1133, 1134, 2133, 2134 Orchestra (MU 1105, 1106, 2105, 2106)
(0-3) ..... 1 hour each
Performance oriented course for students who can play music of moderate difficulty on an orchestral instrument. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: Consent of the instructor.

MUSI 1135, 1136, 2135, 2136 Chamber Music (MU 1109, 1110, 2109, 2110)
(0-3) .....1 hour each
Performance oriented course for specially organized small instrumental ensembles. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: Consent of the instructor.

MUSI 1137, 1138, 2137, 2138 Piano Ensemble and Accompanying (MU 1123, 1124, 2123, 2124)
(0-3) .....1 hour each
Designed to improve ensemble playing and to provide training in techniques of vocal and instrumental accompanying. Four semester hours required of all keyboared majors. Music reading and listening skills will be enhanced through ensemble playing and accompanying solo performers. (SCANS 1,5,11) Prerequisite: Consent of the instructor for all non-keyboard majors.

MUSI 1241, 1242, 2241, 2242 A Cappella Choir (MU 1211, 1212, 2211, 2212)
(0-5) .....2 hours each
A required course for music majors whose primary instrument is voice, or an elective course for non-music majors. Studies include fundamental vocal techniques and choral literature representing many styles and composers from all periods of music. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: Admission by audition with acceptance based on musical ability and voice quality.

MUSI 1151, 1152, 2151, 2152 Vocal Ensemble (MU 1107, 1108, 2107, 2108)
(0-3) .....1 hour each
An elective course designed to acquaint the student with chamber music for the small vocal ensemble of all periods of music. Participation in all performances expected. Students will enhance their music reading and listening skills and will develop social skills and responsibility through group performance. (SCANS 1,5,10,11) Prerequisite: Selection from the A Cappella Choir by audition with acceptance based on musical ability and voice quality.

Music Classes

MUSI 1306 Music Appreciation (MU 1328)
(3-0) .....3 hours
This course is open to all students and is designed to increase a student's understanding and enjoyment of the world's music. Music history information and listening skills will be acquired through a multi-media approach which includes lectures, videos, recordings, and live performances. (SCANS 6,11) Prerequisite: None.

MUSI 1308, 1309 Introduction to Music Literature (MU 1335, 1336)
(3-0) .....3 hours each
A chronological survey course for music majors, which acquaints students with musical composition from the Middle Ages through the twentieth century. Historical aspects, as well as the music itself, are presented. Music history information and listening skills will be acquired through various audio-visual aids, including videotapes, CD's, CD-Roms, workbooks, and textbook. Required of all music majors. (SCANS 6,11) No prerequisite for MUSI 1308. Prerequisite for MUSI 1309: Consent of instructor.

MUSI 1311, 1312 Freshman Music Theory (MU 1376, 1377)
(3-3) .....3 hours each
Reviews basic music theory, followed by study of diatonic melody, diatonic triadic and seventh chord harmony, embellishing tones, modes and motivic variation procedures through analysis, part-writing, composition, ear-training, sight-singing, rhythmic reading and keyboard applications. Required for all Music majors. (SCANS 6,11) Prerequisite for MUSI 1312: MUSI 1311.

MUSI 2311, 2312 Advanced Study of Harmony (MU 2333, 2334)
(3-3) ..... 3 hours each
Presents secondary seventh chords, modulation, chromatic melody and harmony and small forms through analysis, part-writing, composition, eartraining, sightsinging, rhythmic reading and keyboard applications. Twentieth century melody and harmony and large forms studied during the second semester. Required for all music majors. (SCANS 6,11) Prerequisite for MUSI 2311: Mu 1312. Prerequisite for MUSI 2312: MUSI 2311.

MUSI 1370 Music Fundamentals (MU 1329)
(3-0) ..... 3 hours
This course is open to all students and is a basic study of the principles of music and music theory information including notation, scales, intervals, and chords. (SCANS 6) Prerequisite: None.

MUSI 1371, 1372 Piano Literature (MU 1373, 1374)
(3-0) ..... 3 hours each
Surveys and studies solo literature for piano. Emphasizes individual and period idioms and styles. MUSI 1371 presents origins of keyboard and solo piano literature of the 18th century. MUSI 1372 presents solo piano literature of the 19th and 20th centuries. Information is acquired and listening skills are enhanced through the use of cassette tapes, videotapes, CD's, CD-Roms, and live performance. (SCANS 6,11) Prerequisite: Consent of the instructor.

MUSI 1373 Channeling Performance Stress (MU 1375)
(3-0) ..... 3 hours
Directed toward students in performance classes. Addresses psychological and physiological stress responses with regard to their effect on performing ability. Presents training in both systemic and muscular relaxation techniques. The student is taught to recognize performance problems, and implement plans to enhance self esteem. Course includes live performances by the students, as well as videotaping sessions and critiques. (SCANS 9,10) Prerequisite: Consent of the instructor.

MUSI 1160 Italian Diction (MU 1127)
(2-0) ..... 1 hour
Emphasizes Italian language and diction. Designed to promote ability to sing and phonetically spell the Italian language through listening and speaking exercises. Vocabulary derived from words commonly used in song and opera. (SCANS 11) Prerequisite: None.

MUSI 2160 German Diction (MU 1126)
(2-0) ..... 1 hour
Emphasizes German language and diction. Designed to promote ability to sing and phonetically spell the German language through listening and speaking exercises. Vocabulary derived from words commonly used in song and opera. (SCANS 11) Prerequisite: MUSI 1160.

MUSI 2161 French Diction (MU 1125)
(2-0) ..... 1 hour
Emphasizes French language and diction. Designed to promote ability to sing and phonetically spell the French language through listening and speaking exercises. Vocabulary derived from words commonly used in song and opera. (SCANS 11) Prerequisite: MUSI 1160.

MUSI 1170, 1171 General Foundations in Music (MU 1177, 1178)
(0-1/2) ..... 1 hour each
Offered on an elective basis to meet special needs of students to develop their musical ability. Emphasizes the necessary skills for listening, creating rhythmic responses, and reading music notation. This course may involve an individual study project. Lab fee required. (SCANS 1,11) Prerequisite: None.

MUSI 1172, 1173 Instrumental Foundations in Music (MU 1179, 1180)
(0-1/2) ..... 1 hour each
Offered on an elective basis to meet special needs of students to develop their musical ability. Emphasizes the necessary skills for satisfactory performance in playing an instrument, listening, creating rhythmic responses, and reading music notation. Lab fee required. (SCANS 1,11) Prerequisite: None.

MUSI 1174, 1175 Keyboard Foundations in Music (MU 1181, 1182)
(0-1/2) ..... 1 hour each
Offered on an elective basis to meet special needs of students to develop their musical ability. Emphasizes the necessary skills for satisfactory performance in playing a keyboard instrument, listening, creating rhythmic responses, and reading music notation. Lab fee required. (SCANS 1,11) Prerequisite: None.

MUSI 1176, 1177 Vocal Foundations in Music (MU 1183, 1184)
(0-1/2) ..... 1 hour each
Offered on an elective basis to meet special needs of students to develop their musical ability. Emphasizes the necessary skills for satisfactory vocal performance, listening, creating rythmic responses, and reading music notation. Lab fee required. (SCANS 1,11) Prerequisite: None.

MUSI 1181, 1182, 2181, 2182 Class Piano (MU 1185, 1186, 2185, 2186)
(1-2) ..... 1 hour each
Courses for music majors, designed to develop basic skills related to playing the piano, developing the keyboard skills through both class and individual participation. Begins with fundamental elements of music, including music reading, basic concepts of elementary music theory (melody, rhythm, harmony), chord structure, harmonization, ensemble playing and improvisation. Class taught in state-of-the-art piano lab, using digital keyboards, sequencers and computers. (SCANS 1,5,6,8) Prerequisite: Consent of the instructor.

Private Lessons

Private study of piano, organ, voice, string, brass, woodwind, and percussion instruments is available to all students on both beginning and advanced levels of instruction. Students will develop and/or enhance their music reading and listening skills through practice and performance on their instrument. Music majors will have a one hour lesson on their major instrument. They may also have a 1/2 hour lesson on a secondary instrument. Non-music majors will have a 1/2 hour lesson. Five hours of practice per week is required for a 1/2 hour lesson, and 10 hours for a one hour lesson. (SCANS 1,11) Lab fee required. Prerequisite: None.

Non-Music Major Courses

MUAP 1189, 1190, 2189, 2190 Applied Music (MU 1119, 1120, 2119, 2120)
(0-1/2) ..... 1 hour each

Music Major Courses

MUAP 1201, 1202 Freshman Violin (MU 1243, 1244)
(0-1) ..... 2 hours each

MUAP 2201, 2202 Sophomore Violin (MU 2243, 2244)
(0-1) ..... 2 hours each

MUAP 1205, 1206 Freshman Viola (MU 1245, 1246)
(0-1) ..... 2 hours each

MUAP 2205, 2206 Sophomore Viola (MU 2245, 2246)
(0-1) ..... 2 hours each

MUAP 1209, 1210 Freshman Cello (MU 1247, 1248)
(0-1) ..... 2 hours each

MUAP 2209, 2210 Sophomore Cello (MU 2247, 2248)
(0-1) ..... 2 hours each

MUAP 1213, 1214 Freshman Double Bass (MU 1249, 1250)
(0-1) ..... 2 hours each

MUAP 2213, 2214 Sophomore Double Bass (MU 2249, 2250)
(0-1) ..... 2 hours each

MUAP 1217, 1218 Freshman Flute (MU 1255, 1256)
(0-1) ..... 2 hours each

MUAP 2217, 2218 Sophomore Flute (MU 2255, 2256)
(0-1) ..... 2 hours each

MUAP 1221, 1222 Freshman Oboe (MU 1259, 1260)
(0-1) ..... 2 hours each

MUAP 2221, 2222 Sophomore Oboe (MU 2259, 2260)
(0-1) ..... 2 hours each

MUAP 1225, 1226 Freshman Bassoon (MU 1253, 1254)
(0-1) ..... 2 hours each

MUAP 2225, 2226 Sophomore Bassoon (MU 2253, 2254)
(0-1) ..... 2 hours each

MUAP 1229, 1230 Freshman Clarinet (MU 1257, 1258)
(0-1) ..... 2 hours each

MUAP 2229, 2230 Sophomore Clarinet (MU 2257, 2258)
(0-1) ..... 2 hours each

MUAP 1233, 1234 Freshman Saxophone (MU 1261, 1262)
(0-1) ..... 2 hours each

MUAP 2233, 2234, Sophomore Saxophone (MU 2261, 2262)
(0-1) ..... 2 hours each

MUAP 1237, 1238 Freshman Cornet or Trumpet (MU 1267, 1268)
(0-1) ..... 2 hours each

MUAP 2237, 2238 Sophomore Cornet or Trumpet (MU 2267, 2268)
(0-1) ..... 2 hours each

MUAP 1241, 1242 Freshman French Horn (MU 1263, 1264)
(0-1) ..... 2 hours each

MUAP 2241, 2242 Sophomore French Horn (MU 2263, 2264)
(0-1) ..... 2 hours each

MUAP 1245, 1246 Freshman Trombone or Baritone (MU 1265, 1266)
(0-1) ..... 2 hours each

MUAP 2245, 2246 Sophomore Trombone or Baritone (MU 2265, 2266)
(0-1) ..... 2 hours each

MUAP 1253, 1254 Freshman Tuba (MU 1269, 1270)
(0-1) ..... 2 hours each

MUAP 2253, 2254 Sophomore Tuba (MU 2269, 2270)
(0-1) ..... 2 hours each

MUAP 1257, 1258 Freshman Percussion (MU 1271, 1272)
(0-1) ..... 2 hours each

MUAP 2257, 2258 Sophomore Percussion (MU 2271, 2272)
(0-1) ..... 2 hours each

MUAP 1261, 1262 Freshman Classical Guitar (MU 1251, 1252)
(0-1) ..... 2 hours each

MUAP 2261, 2262 Sophomore Classical Guitar (MU 2251, 2252)
(0-1) ..... 2 hours each

MUAP 1265, 1266 Freshman Organ (MU 1239, 1240)
(0-1) ..... 2 hours each

MUAP 2265, 2266 Sophomore Organ (MU 2239, 2240)
(0-1) ..... 2 hours each

MUAP 1269, 1270 Freshman Piano (MU 1237, 1238)
(0-1) ..... 2 hours each

MUAP 2269, 2270, Sophomore Piano (MU 2237, 2238)
(0-1) ..... 2 hours each

MUAP 1281, 1282 Freshman Voice (MU 1241, 1242)
(0-1) ..... 2 hours each

MUAP 2281, 2282 Sophomore Voice (MU 2241, 2242)
(0-1) ..... 2 hours each

MUAP 1165, 1166, 2165, 2166 Secondary Organ (MU 1139, 1140, 2139, 2140)
(0-1/2) ..... 1 hour each

MUAP 1169, 1170, 2169, 2170 Secondary Piano (MU 1137, 1138, 2137, 2138)
(0-1/2) ..... 1 hour each

MUAP 1181, 1182, 2181, 2182 Secondary Voice (Mu 1141, 1142, 2141, 2142)
(0-1/2) ..... 1 hour each

MUAP 1187, 1188, 2187, 2188 Secondary Instrument (MU 1113, 1114, 2113, 2114)
(0-1/2) ..... 1 hour each

Nursing (RN/Vocational)

Faculty: Nancy Johnson, chair, Odessa College Department of Nursing; Ladona Cook, assistant director and coordinator of RN-Direct Option Program; J. J. Backer, Gail Barry, Carol Boswell, Patty Chapman, Dorothy Cook, Wanda Davis, Nancy Harris, Eva Mauldin, Jan Phillips, Pat Ritchey, Robbie Rogers, Naomi Warren, Dr. Ann Winn.

The Career Ladder Option on the Odessa College campus is designed to allow students maximum flexibility in education. Students have the option of progressing through the two levels of nursing after meeting requirements for each level. The vocational level prepares the nurse, who qualifies, to write the licensing examination for the vocational nurse. The student will receive a Certificate of Completion from Odessa College. The associate degree level prepares the nurse, who qualifies, to write the licensing examination for the registered nurse. Successful completion of the associate degree level qualifies the student to receive the Associate in Applied Science Degree. Classes are admitted to the vocational level in the fall and spring semesters and to the associate degree option in the fall semester.

The transition/validation course requires admission to the career ladder program for persons who are licensed vocational nurses. The purpose of this course is to validate and enhance nursing skills and to bring the LVN to the level of the generic nursing student entering the second year. Upon successful completion of the transition/validation course, the LVN will receive credit for the first year of the nursing curriculum.

The RN Program-Direct Option prepares the graduate to take the licensing examination to become a registered nurse. Upon successful completion of the program, students receive an Associate in Applied Science Degree. All classes and clinicals are conducted during evening hours with the exception of the psychiatric clinical, which is offered during daytime hours. Classes are admitted in the Fall on even number years on evenings only.

The Tech Prep Career Ladder Option is to provide a six-year curriculum for nursing students starting with the freshman year in high school and continuing through the sophomore year at Odessa College which provides a variety of competencies and advanced work in nursing not possible to obtain in two years. These students will have the flexibility to progress through the career ladder option.

Admission Requirements for the Career Ladder Option, RN-Direct Option, Transition/Validation for the Licensed Vocational Nurse, and the Tech Prep/Career Ladder Option

1. Official high school transcript or GED.
2. College cumulative GPA of 2.0 or higher in all course work.
3. BIOL 2401, Anatomy and Physiology I and BIOL 2402, Anatomy and Physiology II; MATH 1332 or more advanced; and NURS 1201, Pharmacology plus listed prerequisites for each option (Biology courses 2401, 2402) must have been completed within past 5 years.
4. Passed TASP and/or satisfactory scores on ASSET placement tests.
5. A score of the 50th percentile or higher on the nursing entrance examination.
6. Current CPR certification (Course C, American Heart Association, or Basic Life Support for the Professional, American Red Cross).
7. Persons who have been convicted of felonies or misdemeanors must request a declaratory order from the State Board of Nurse Examiners in Texas prior to admission.
8. Applications should be submitted no later than March 1 for the fall semester and no later than October 1 for the spring semester.
9. Proof of medical and liability insurance coverage.

Career Ladder Nursing Option

The Career Ladder Nursing Program is designed to allow students maximum flexibility in education. They have the option of progressing through the two levels of nursing. The vocational level prepares the vocational nurse, and the associate degree level prepares the associate degree nurse. All nursing students must have current CPR certification and are governed by policies in the Nursing Student Handbook.

Vocational Level*

Certificate of Completion

Prerequisite Courses **Semester Hrs**

BIOL 2401 Anatomy and Physiology I 4
BIOL 2402 Anatomy and Physiology II 4
MATH 1332 Structures of College Mathematics I or higher level math 3

First Year

Summer Session II

Semester Hrs

NURS 1201 Pharmacology 2

First Semester

PSYC 2308 Child Psychology 3
NURS 1831 Basic Nursing 8

Second Semester

**NURS 1832 Care of Clients with Unstable Health Conditions I 9
COSC 1301 Introduction to Computer Systems 3

Summer Sessions I and II

NURS 1933 Care of Clients with Unstable Health Conditions II 9
(12 weeks)

**Students who successfully complete the vocational level with a cumulative GPA of 2.0 or better in all course work are eligible to write the State Board Examination for licensure as a vocational nurse and receive a Certificate of Completion.*
***Students planning to enter the associate degree level may take an additional academic course from the curriculum for the second year.*

Associate Degree Level***

Second Year

First Semester

Semester Hrs

BIOL 2420 Microbiology 4
ENGL 1301 Composition and Rhetoric 3
NURS 2534 Nursing Care of Clients-Critical Health Deviations 5
SPCH 1315 Public Speaking 3
*PHED 1100 Lifestyle Assessment and Modification 1

Second Semester

Elective 3
GOVT 2301 U.S. and Texas Government 3
NURS 2535 Complex Health and Nursing Problems 3
PHED One-hour activity course 1

****Students successfully completing the associate degree level are eligible to write the State Board Examination for licensure as a registered nurse.*
**PHED 1100 should be the first activity course taken in physical education.*

Transition/Validation Course for Licensed Vocational Nurses

Prior to taking the Transition/Validation Course, licensed vocational nurses must be licensed to practice nursing in the state of Texas. Upon successful completion of the Transition/Validation Course, students will follow the curriculum for the associate degree level of the Career Ladder Program. All nursing students must have current cardiopulmonary resuscitation certification and are governed by policies in the Nursing Student Handbook.

Prerequisite Courses ..... **Semester Hrs**

- BIOL 2401 Anatomy and Physiology I 4
- BIOL 2402 Anatomy and Physiology II 4
- MATH 1332 Structures of College Mathematics I or higher level math 3
- PSYC 2308 Child Psychology 3
- COSC 1301 Introduction to Computer Systems 3
- NURS 1201 Pharmacology (or consent of instructor) 2

First Year

First Semester

Semester Hrs

- *NURS 1630 Transition/Validation for the L.V.N. 6
- ENGL 1301 Composition and Rhetoric 3
- SPCH 1315 Public Speaking 3
- **PHED 1100 Lifestyle Assessment and Modification 1

Second Semester

- BIOL 2420 Microbiology 4
- NURS 2534 Nurs Care of Clients with Critical Health Dev. 5

Second Year

Third Semester

Semester Hrs

- GOVT 2301 U.S. and Texas Government 3
- NURS 2535 Complex Health and Nursing Problems 5
- Elective 3
- PHED One-hour activity course 1

**When students have successfully completed NURS 1630, they are eligible to enter the second year of the curriculum.*
***PHED 1100 should be the first activity course taken in physical education.*

RN Associate Degree Nursing Program-Direct Option

The Odessa College Evening Nursing Program offers a sequence of evening classes leading to an Associate in Applied Science Degree and preparation to write the licensing examination for a registered nurse. Nursing courses begin in the fall semester of even numbered years. Psychiatric clinical experiences may be held during day hours. Prior to entering the nursing courses, the student must have completed the academic support course requirements designated in the first year of the curriculum and be currently certified in CPR. All students are governed by policies in the Nursing Student Handbook.

First Year

First Semester

Semester Hrs

- BIOL 2401 Anatomy and Physiology I 4
- ENGL 1301 Composition and Rhetoric 3
- MATH 1332 Structures of College Mathematics I or higher level math 3
- *PHED Lifestyle Assessment and Modification 1

Second Semester

	Semester Hrs
BIOL 2402 Anatomy and Physiology II	4
PSYC 2308 Child Psychology	3
COSC 1301 Introduction to Computer Systems	3
PHED One-hour activity course	1

Summer Session I

BIOL 2420 Microbiology	4

Summer Session II

NURS 1201 Pharmacology	2

Second Year

First Semester

NURS 1851 Basic Nursing, Evening	8

Second Semester

NURS 1852 Unstable Health Conditions, Evening	8

Summer Session I

SPCH 1315 Public Speaking	3
Elective	3

Summer Session II

GOVT 2301 U.S. and Texas Government	3

Third Year

First Semester

NURS 2953 Critical Health Problems, Evening	9

Second Semester

NURS 2954 Complex Health Problems, Evening	9

**PHED 1100 should be the first course taken in physical education.*

Program for the RN: Tech Prep/Career Ladder Option

	Semester Hrs
*Prerequisite/Bridge Courses	17
BIOL 2401 Anatomy & Physiology I	4
BIOL 2402 Anatomy & Physiology II	4
MATH 1332 Structures of College Mathematics I or higher level math	3
PSYC 2308 Child Psychology	3
COSC 1301 Introduction to Computer Systems	3

First Year

***Summer Session II**

	Semester Hrs
NURS 1201 Pharmacology	2

***First Semester**

**NURS 1831 Basic Nursing	8

** The above prerequisite courses and first year courses are required as a bridge program for non-tech-prep high school graduates to continue in the RN: Tech Prep/Career Ladder Option. Graduates of the high school tech prep nursing program will have completed the above courses or equivalent competencies in their high school curriculum.*

*** Completers of NURS 1831 with a grade of "C" or higher are eligible to receive a Certificate of Completion as a NURSE TECH I and are eligible for employment at the aide level.*

Second Semester

	Semester Hrs
NURS 1832 Care of Clients with Unstable Health Conditions	8

Summer Sessions I & II

**NURS 1933 Care of Clients with Unstable Health Cond. II	9

***Completers of NURS 1933 with a grade of "C" or higher are eligible to (a) receive an LVN Certificate of Completion, (b) sit for the State Board Examination for licensure as a vocational nurse, and (c) enter the Associate Degree Level without completion of NURS 1630.*

Second Year

First Semester

	Semester Hrs
NURS 2534 Nursing Care of Clients with Critical Health Cond.	5
BIOL 2420 Microbiology	4
SPCH 1315 Public Speaking	3
ENGL 1301 Composition and Rhetoric	3
PHED 1100 Lifestyle Assessment and Modification	1

Second Semester

NURS 2535 Complex Health and Nursing Problems	5
GOVT 2301 U.S. and Texas Government	3
PHED One-hour activity course	1

***Students successfully completing the Associate Degree Level program are eligible to receive an Associate's Degree in Nursing and write the State Board Examination for licensure as a registered nurse. Academic courses listed in the Second Year may be taken earlier if the student's schedule and abilities allow.*

NURS 1201 Pharmacology

(2-1) [16 weeks] ..... 2 hours
(6-3) [5 weeks] ..... 2 hours

The student identifies pharmacological classifications of drug actions, side effects, and toxic implications. Using dimensional analysis the student performs drug dosage calculations for administration of medications and monitoring of intravenous solutions for clients. (SCANS 1,2,3,6) Prerequisites: BIOL 2401 and BIOL 2402. Corequisites: NURS 1831 and PSYC 2308 and consent of the department chair.

NURS 1630 Transition/Validation for the L.V.N.

(4-8) ..... 6 hours

Prepares the licensed vocational nurse with major concepts basic to the curriculum and conceptual framework to determine the health status and health needs of clients and families based on interpretation of health data in collaboration with clients, families, and other health care professionals. During clinical experiences the student demonstrates the use of the five steps in a systematic process, which includes assessment, analysis, planning, implementing, and evaluating, in identifying overt and covert actual or potential health care needs of clients and their families. Administers medications and treatments following established protocols. Begins to integrate theoretical knowledge with the application of clinical knowledge in the decision-making process for the provision of nursing care. Builds on LVN competencies. Requires supervision by instructor while in the clinical settings. Successful completion of course makes the student eligible to enter second year of the Career Ladder Option curriculum. Lab fee required. (SCANS 2,3,4,6,9,10) Prerequisite: BIOL 2401, BIOL 2402, MATH 1314 or MATH 1342, PSYC 2308, COSC 1301, NURS 1201 and consent of department chair. Texas license to practice as a L.V.N.

NURS 1831 Basic Nursing
(6-16) ..... 8 hours
The student participates as a member of the health care team providing nursing care for clients in structured health care settings. Uses the five steps of systematic process, which includes assessing, analyzing, planning, implementing, and evaluating when performing basic assessment to identify health status and monitor change. Selects nursing diagnoses from a standardized source based upon analysis of health data. Provides basic nursing procedures and skills to implement plans of care. The student begins to develop skills in critical thinking for clients and families health care needs. Administers medications and treatments following established protocols. Lab fee required. (SCANS 2,3,4,6,8,9,10,11) Prerequisites: BIOL 2401, BIOL 2402, MATH 1314 or MATH 1342, or NURS 1201 and consent of the department chair. Admission to the Career Ladder Option.

NURS 1832 Unstable Health Conditions I
(6-20) ..... 8 hours
Analyzes characteristics, concepts, and processes related to disease transmission, risk factors, and their implications for selected populations, and community resources. Prepares the student to implement the plan of care within legal and ethical parameters in collaboration with client families and other members of health care professionals to assist clients and their families meet health care needs. The student provides for the care of the newborn, pediatric clients and medical/surgical clients using the five steps of a systematic process in structured settings either through direct care or assignments which requires supervision of a clinical instructor. Administration of medications and treatments following established protocols. Lab fee required. (SCANS 2,3,5,6,9) Prerequisites: NURS 1831 or NURS 1851, and consent of department chair.

NURS 1851 Basic Nursing
(6-15) ..... 8 hours
The student participates as a member of the health care team providing nursing care for clients in structured health care settings. Uses the five steps of systematic process, which includes assessing, analyzing, planning, implementing, and evaluating when performing basic assessment to identify health status and monitor change. Selects nursing diagnoses from a standardized source based upon analysis of health data. Provides basic nursing procedures and skills to implement plans of care. The student begins to develop skills in critical thinking for clients and families health care needs. Administers medications and treatments following established protocols. Lab fee required. (SCANS 2,3,4,6,8,9,10) Prerequisites: NURS 1201 and admission to the RN: Direct Option.

NURS 1852 Unstable Health Conditions
(6-15) ..... 8 hours
Analyzes characteristics, concepts, and processes related to disease transmission, risk factors, and their implications for selected populations, and community resources. Prepares the student to implement the plan of care within legal and ethical parameters in collaboration with client families and other members of health care professionals to assist clients and their families meet health care needs. The student provides for the care of the newborn, pediatric clients and medical/surgical clients using the five steps of a systematic process in structured settings either through direct care or assignments which requires supervision of a clinical instructor. Administration of medications and treatments following established protocols. Lab fee required. (SCANS 2,3,4,5,7,9) Prerequisites: NURS 1851 and 1831, and consent of department chair.

NURS 1933 Care of Clients with Unstable Health Conditions II
(10-26) [12 weeks] ..... 9 hours (summer)
(7-20) [16 weeks] ..... 9 hours (spring)
Establishes theories and models that guide nursing practice. Interprets the principles of disease prevention and health promotion for individuals and families by implementing teaching plans. Uses the five steps in a systematic process which includes assessing, analyzing, planning, implementing, and evaluating the care of the childbearing families and unstable medical/surgical clients. The student implements critical thinking through interpretation of health data in collaboration with clients, families, and other health care professions. The student begins to assume accountability and responsibility for the quality of nursing care provided to clients and families at the vocational nursing level. Administers treatments and medications following established protocols. Lab fee required. (SCANS 2,3,4,5,7,9) Prerequisites: NURS 1832 or NURS 1851, and consent of department chair.

NURS 2374 Critical Care Nursing Problems
(Elective Course)(3-0) ..... 3 hours
Identifies and makes independent clinical judgment in caring for clients and families with critical care problems using the five steps in a systematic process which includes assessing, analyzing, planning, implementing, and evaluating. Uses critical thinking as a basis for decision making in nursing practice. (SCANS 3,5,6,7,8,9,10) Prerequisite NURS 1933 or graduate nurse.

NURS 2534 Critical Health Deviations
(4-12) ..... 5 hours
Functions within organizational framework of various structured health care settings in planning and providing care for clients and their families with critical health deviations. Uses the five steps of a systematic process for clients and families' responses to therapeutic interventions. Participates as an advocate to ensure the provision of quality health care for clients and their families. Administers treatments and medications following established protocols. Lab fee is required. (SCANS 2,3,4,6,7,8,9,10) Prerequisites: NURS 1933 and consent of department chair.

NURS 2535 Complex Health and Nursing Problems
(4-12) ..... 5 hours
Evaluates the client and family responses to therapeutic interventions for complex health and nursing problems including psychiatric deviations. Participates as a member of the health care team in referring clients and their families to appropriate resources for assistance when necessary to meet health needs. Provides care of multiple clients in structured settings through assigned care. Coordinates human and material resources for the provision of care for clients and their families. The student begins to assume responsibility and accountability for the quality of nursing care provided to clients and families at the graduate nursing level. Administers treatments and medications following established protocols. (SCANS 2,3,4,5,6,7,9,10,11) Prerequisite: NURS 2534 and consent of department chair.

NURS 2953 Complex Health Problems
(6-15) ..... 9 hours
Establish theories and models that guide nursing practice. Interprets the principles of disease prevention and health promotion for individuals and families by implementing teaching plans. Administers treatments and medications following established protocols. Functions within organizational framework of various structured health care settings in planning and providing care for clients and their steps of a systematic process of clients and families' responses to therapeutic interventions. Evaluates the client and family responses to therapeutic interventions for complex health and nursing problems including psychiatric deviations. Participates as an advocate to ensure the provision of quality health care for clients and their families. Lab fee required. (SCANS 2,3,4,5,6,7,9,10,11) Prerequisites: NURS 1852, NURS 1933, or 1832, and consent of department chair.

NURS 2954 Critical Health Problems
(6-15) ..... 9 hours
Provides care for multiple clients in structured settings through assigned care. Coordinates human and material resources for the provision of care for clients and their families. Administers treatments and medications following established protocols. Uses the five steps in a systematic process which includes assessing, analyzing, planning, implementing, and evaluating the care of the childbearing families and critical medical/surgical health care problems. Participates as an advocate to ensure the provision of quality health care for clients and their families. the student begins to assume responsibility and accountability for the quality of nursing care provided to clients and families at the graduate nursing level. Lab fee required (SCANS 2,3,4,6,7,8,9,10) Prerequisite: NURS 2953 and consent of department chair.

Vocational Nursing Course of Study
Andrews and Kermit Extensions

Faculty: Karen Paterno, chair, Andrews Vocational Nursing Program; DeAnna Moore; Norma Drennon, chair, Kermit Vocational Nursing Program; Maureen Watson.

Admission Requirements for the Extension Vocational Programs in Andrews and Kermit

1. Official high school transcript or GED.
2. College cumulative GPA 2.0 or higher in all course work.
3. A satisfactory score on the Vocational Nursing Entrance Exam.
4. Current CPR certification (Course C, American Heart Association, or Basic Life Support for the Professional, American Red Cross).
5. Persons who have been convicted of felonies or misdemeanors must request a declaratory order as to their eligibility to receive a license as nurse in the state of Texas.
6. Applications should be submitted no later than May 1.

Although English language proficiency is not required for admission to the program, successful completion of the program necessitates good communication skills in English. Because of limited enrollment, students are urged to apply as early as possible before the proposed date of admission.

There is no discrimination due to age, sex, color, race, cultural background or national origin. The nursing programs focus on the nursing care of clients with common health problems. Clinical experience is concurrent within each course and includes medical, surgical, obstetrical, pediatric, psychiatric and geriatric nursing experiences as well as special selected services. All courses in the curriculum are required and must be completed no later than the prescribed semester. Students must satisfy the objectives for the respective level with a minimum grade of "C" in each required nursing course and all academic courses before progressing to the next semester. A grade of "D" or "F" in any nursing or academic course is unacceptable. Students may be required to withdraw from a course or courses if unsafe practice or practices are identified in the care of clients. Hospital experiences are scheduled during day and evening hours. Students must maintain a cumulative GPA of 2.0 or better in all course work in each level. Upon completion of the program, the student is eligible to receive the certificate of technology.

All nursing students are expected to carry health and accident insurance. Professional liability insurance is mandatory. Students are responsible for their own transportation to clinical facilities. the department of nursing assumes no responsibility for students employed in an agency. Students are personally responsible and liable for any activity participated in while employed. Professional liability insurance purchased by students is valid in the student role and not in the employment role.

The vocational program is accredited by the Board of Vocational Nurse Examiners.

Vocational Nursing Course of Study

First Semester

	Semester Hrs
NURS 1611 Vocational Nursing I	6
NURS 1612 Vocational Nursing II	6

Second Semester

NURS 1613 Vocational Nursing III	6
NURS 1614 Vocational Nursing IV	6

Summer Session

NURS 1615 Vocational Nursing V	6

NURS 1611 Vocational Nursing I

(20-0) ..... 6 hours

The student participates as a member of the health care team providing nursing care for clients in structured health care settings. Using the nursing process to problem solve, the student learns to assess and analyze by reading and interpreting patient records and performing basic physical assessments; prioritize client needs to implement plans of care; and document nursing activities to communicate information for further evaluation of the client response. This course includes Anatomy and Physiology I, Microbiology, Vocational Adjustments, Growth and Development with Nutrition throughout the lifespan, and nursing skills to prepare the student to perform basic nursing procedures for the comfort and safety of client with self-care limitations that include application of nursing ethics and legal responsibilities. (SCANS 1,2,4,5,6,7,8,9) Prerequisite: None. Corequisite: NURS 1612. Lab fees required.

NURS 1612 Vocational Nursing II

(8-7) ..... 3 hours

Continues with Anatomy and Physiology II, Growth and Development, Nutrition, and nursing skills. Pharmacological math as it applies to dosage calculations and medication administration is presented. The incorporation of Mental Health and Mental Illness assists in evaluating basic mental health. The communication process is included to develop teaching skills, listening skills , interpretation skills, and socialization skills with clients, families and peers. (SCANS 1,2,3,4,5,6,7,8,9,10,11) Prerequisite: None. Corequisite: NURS 1611.

NURS 1613 Vocational Nursing III

(7-13) ..... 3 hours

Begins the study of medical-surgical nursing of adults and children by body system including the application of the principles of pharmacology. Is designed for the student to gain an understanding of the pathological variations from normal functioning with emphasis on the nursing process. Application of the principles from the biological, physical, social and behavioral sciences are incorporated. The study of obstetrical nursing is also presented. Clinical experiences are based on application of the nursing process in medical and surgical environments with the adult and child including the dosage calculation and administration of medication and treatments under the direct supervision of a clinical instructor. (SCANS 1,2,3,4,5,6,7,8,9,11) Prerequisites: NURS 1611 and NURS 1612. Corequisite: NURS 1614.

NURS 1614 Vocational Nursing IV

(3-14) ..... 6 hours

Continues the study of medical-surgical nursing of adults and children by body system including the application of the principles of pharmacology. Prepares the student to implement the plan of care with legal and ethical consideration involving communication with the client, family members, and other members of the health care team. The student provides care for the adult and pediatric medical-surgical client in structured settings using the nursing process to plan, document, and evaluate patient care. Including administration of medications and treatments following established protocols. (SCANS 1,2,3,4,5,6,7,8,9,10,11) Prerequisites: NURS 1611 and 1612. Corequisite: NURS 1613.

NURS 1615 Vocational Nursing V
(5-35) ..... 6 hours
Continues the study of medical-surgical nursing of adults and children by body systems including the application of the principles of pharmacology. Clinical application includes the care of obstetrical clients and newborn infants in addition to the unstable medical-surgical clients. The student implements critical thinking through interpretation of health data in collaboration with client, families, and other health care professionals. The student begins to assume accountability and responsibility for the quality of nursing care provided to clients and families at the vocational nursing level (SCANS 1,2,3,4,5,6,7,8,9,10,11) Prerequisites: NURS 1611, NURS 1612, NURS 1613, NURS 1614.

Office Systems Technology

Faculty: Dr. Rita Hurst, chair; Billie Duncan, Carol Lemen, Nancy Sturges.

The Office Systems Program is designed to offer the student intensive, individualized study. The intensive classes meet daily between 8 a.m. and 2 p.m. Monday through Friday and between 6 and 9 p.m. Monday through Thursday during the fall and spring semesters. The summer instructional schedule is 7 a.m. to 1 p.m. Monday through Thursday.

Students have the option of completing a Certificate of Technology in 12 to 18 months or an Associate in Applied Science Degree in 18 to 24 months. Students seeking personal development courses rather than a certificate or degree may enroll in any individual class.

All students will be advised on their individual program course sequence based on their present skill level and desired goals. Individual advisement will be in Instructional Building, Room 222. Registration will be conducted through the regular college procedure.

Once each year, the Office Systems Technology faculty administers the Certified Professional Secretary examination. Information regarding testing dates can be obtained by contacting the department chair. Individuals who can document their professional certification are eligible to apply for 18 semester hours of credit at Odessa College after completion of 12 additional selected hours at Odessa College. Courses for which credit may be earned are as follows: BUSI 1301, Introduction to Business; MGMT 1301, Introduction to Management; OFST 2420, Business Communication; OFST 1322, Intermediate Keyboarding; OFST 1424, Office Bookkeeping; and OFST 2421, Office Procedures.

Students not desiring the Associate in Applied Science Degree may receive a Level I Certificate—Office Clerk, Level II Certificate of Technology—Office Assistant, and/or Level III—Advanced Skills Certificate upon successful completion with a "C" (2.0) average all courses specified in the course of study.

Students who have completed an Associate in Applied Science Degree may receive a Level III Advanced Skills Certificate upon successful completion with a "C" (2.0) average in all courses specified in the course of study.

Students who have completed an Associate in Applied Science Degree or who have received permission of department chairperson to enroll for advanced skills training may receive a Level III Advanced Skills Certificate upon successful completion with a "C" (2.0) average all courses specified in the course of study.

Course of Study for Associate in Applied Science Degree

5823 **Office Systems Technology**

Students not graduating under the Tech-Prep high school graduation plan must take the 14 semester hours marked with an (*) as part of the Office Systems Technology curriculum—articulation, advanced standing exam, approval of department chairman, or regular enrollment at OC.

	Semester Hrs
General Education Requirements	**17**
ENGL 1301 Composition and Rhetoric OR	
ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government OR	
GOVT 2302 American National Government	3
MATH 1314 College Algebra OR	
MATH 1371 College Algebra for Business OR	
MATH 1372 Technical College Algebra OR	
MATH 1324 Mathematical Analysis for Business	3
*PHED (Any two one-hour activity courses)	2
[redacted] SPCH 1321 Business and Professional Speech OR	
SPCH 1342 Voice and Diction	3
Elective (must be outside the major area)	**3**
Major Requirements	**44**
OFST 1321 Beginning Keyboarding OR	3
OFST 1322 Intermediate Keyboarding	3
OFST 1401 Data Entry/Business Calculations	4
*OFST 1404 Beginning Word Processing	4
OFST 1406 Basic Spreadsheet	4
*OFST 1424 Office Bookkeeping	4
OFST 2304 Advanced Keyboarding	3
OFST 2377 Cooperative Work Experience	3
OFST 2401 Advanced Word Processing	4
OFST 2402 Information Processing	4
OFST 2420 Business Communication	4
OFST 2421 Office Procedures	4
Related Requirements	**6**
BUSI 1301 Introduction to Business	3
*COSC 1301 Introduction to Computer Systems	3
Total Semester Hours	**67**

**PHED 1100 should be the first course taken in physical education.*

A total of 67 semester hours and a grade point average of 2.0 are required for the Associate in Applied Science Degree.

Course of Study for Certificate Options

5826C **Level I Certificate of Technology Office Clerk**

*OFST 1321 Beginning Keyboarding OR	
OFST 1322 Intermediate Keyboarding	3
OFST 1401 Data Entry/Business Calculations	4
*OFST 1404 Beginning Word Processing	4
(If taking OFST 1321, delay until second semester and take OFST 1402))	
*OFST 1424 Office Bookkeeping	4

Related Requirements **9**
COSC 1301 Introduction to Computer Systems 3

Total semester hours **18**

A total of 18 semester hours and a grade point average of 2.0 are required for a Level I Certificate.

**Indicates courses which may be articulated by agreement with high school.*

Level II Certificate of Technology - Office Assistant 5826C

The 18 semester hours specified in Level I certificate plus the following courses:

OFST 1322 Intermediate Keyboarding OR
OFST 2304 Advanced Keyboarding 3
OFST 1402 Business Language Skills 4
OFST 1406 Basic Spreadsheet 4
OFST 2401 Advanced Word Processing 4
OFST 2304 Advanced Keyboarding OR
OFST 2402 Information Processing 4
OFST 2420 Business Communications 4
OFST 2421 Office Procedures 4

Related Requirements
SPCH 1321 Business and Professional Speech OR
SPCH 1342 voice and Diction 3
TMTH 1370 Technical College Mathematics 3

Total Semester Hours **50-51**

A total of 50-51 semester hours and a grade point average of 2.0 are required for a Certificate of Technology.

Level III Certificate (Advanced Skills Certificate) Office Technology Specialist

Students may earn a Level III Certificate—Advanced Skills Certificate—Office 5820C Technology Specialist following completion of an A.A. Degree **or** a Level II Certificate of Technology by completing the following requirements.

Semester Hrs

OFST 2402 Information Processing OR
OFST 2404 Desktop Publishing 4
OFST 2430 Computerized Bookkeeping 4

Related Requirements
BUSI 1301 Introduction to Business OR
MGMT 1301 Introduction to Management OR
MGMT 2301 Management Skills Development 3

Total Semester Hours **11**

A total of 11 semester hours and a grade point average of 2.0 are required for a Level III Certificate—Advanced Skills Certificate—Office Technology Specialist.

NOTE: Completion of Levels I, II, and III certificates will require passage of TASP exam.

Course of Study for Associate in Applied Science Degree

5824 **Medical Emphasis**

Students not graduating under the Tech-Prep high school graduation plan must take the 14 semester hours marked with an (*) as part of the Office Systems Technology curriculum—articulation, advanced standing exam, approval of department chairperson, or regular enrollment at OC.

	Semester Hrs
General Education Requirements	**17**
ENGL 1301 Composition and Rhetoric OR	
ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government OR	
GOVT 2302 American National Government	3
MATH 1314 College Algebra OR	
MATH 1371 College Algebra for Business OR	
MATH 1372 Technical Algebra for Business OR	
MATH 1324 Mathematical Analysis for Business	3
**PHED (Any two one-hour activity courses)	2
SPCH 1321 Business and Professional Speech or	
SPCH 1342 Voice and Diction	3
Elective (must be outside the major area)	**3**
Major Requirements	**44**
OFST 1101 Computerized Medical Recordkeeping (4 weeks)	1
OFST 1207 Medical Terminology (8 weeks)	2
OFST 1208 Medical Coding (8 weeks)	2
OFST 1217 Beginning Medical Transcription (8 weeks)	2
*OFST 1321 Beginning Keyboarding OR	3
OFST 1322 Intermediate Keyboarding	3
OFST 1401 Data Entry/Business Calculations	4
*OFST 1404 Beginning Word Processing	4
(If taking OFST 1321, delay until second semester)	
OFST 1322 Intermediate Keyboarding OR	
OFST 2304 Advanced Keyboarding	3
OFST 1406 Basic Spreadsheet	4
*OFST 1424 Office Bookkeeping	4
OFST 2377 Cooperative Work Experience	3
OFST 2420 Business Communication	4
OFST 2421 Office Procedures	4
OFST 2401 Advanced Word Processing	4
Related Requirements	**7**
BIOL 2404 Human Anatomy and Physiology (16 weeks)	4
*COSC 1301 Intro to Computer systems	3
Total Semester Hours	**68**

***PHED 1100 should be the first course taken in physical education.*

A total of 68 semester hours and a grade point average of 2.0 are required for Associate in Applied Science Degree.

**Indicates courses which may be articulated by agreement with high school.*

Course of Study for Certificate Options

Level I Certificate Medical Office Clerk 5824C

	Semester Hrs
OFST 1321 Beginning Keyboarding OR	3
1322 Intermediate Keyboarding	3
OFST 1401 Data Entry/Business Calculations	4
*OFST 1404 Beginning Word Processing	4
(If taking OFST 1321, delay until second semester and take OFST 1402)	
*OFST 1424 Office Bookkeeping	4
Related Requirements	3
*COSC 1301 Introduction to Computer Systems	3
Total Semester Hours	**21**

A total of 21 semester hours and a grade point average of 2.0 are required for a Level I Certificate—Medical Office Clerk.

**Indicates courses which may be articulated by agreement with high school.*

Level II Certificate of Technology Medical Office Assistant 5826C

The 18 semester hours specified in Level I Certificate plus the following courses:

OFST 1101 Computerized Medical Recordkeeping (4 weeks)	1
OFST 1207 Medical Terminology (8 weeks)	2
OFST 1208 Medical Insurance Coding (8 weeks)	2
OFST 1217 Beginning Medical Transcription (8 weeks)	2
OFST 1322 Intermediate Keyboarding OR	
OFST 2304 Advanced Keyboarding OR	
OFST 2417 Advanced Medical Transcription	3-4
OFST 1402 Business Language Skills	4
OFST 1406 Basic Spreadsheet	4
OFST 2401 Advanced Word Processing	4
OFST 2420 Business Communication	4
OFST 2421 Office Procedures	4
Total Semester Hours	**48-49**
Related Requirements	6
SPCH 1321 Business and Professional Speech OR	
SPCH 1342 Voice and Diction	3
TMTH 1370 Technical College Mathematics	3
Total Semester Hours	**54-55**

A total of 54-55 semester hours and a grade point average of 2.0 are required for a Certificate of Technology—Medical Office Technology Specialist.

Level III Advanced Skills Certificate Medical Office Technology Specialist 5820C

Students may earn a Level III Certificate—Advanced Skills Certificate—Medical Office Technology Specialist following completion of an A.A. Degree **or** a Level II Certificate of Technology by completing the following requirements.

OFST 2232 Medical Office Procedures/Records (8 weeks)	2
OFST 2417 Advanced Medical Transcription	4
OFST 2402 Information Processing	4
Total Semester Hours	**10**

A total of 10 semester hours and grade point average of 2.0 are required for a Level III Certificate—Advanced Skills Certificate—Medical Office Technology Specialist.

Office Systems Technology Courses

OFST 1100 Basic Keyboarding Skills
(1-2) [7 weeks] ..... 1 hour
Student will develop a functional skill in touch-method keyboarding on alphanumeric keyboard, including numbers and symbols. Designed for student desiring minimal keyboard skills (approximately 20 wpm) or wanting keyboard review. Will develop skills in reading instructions and accessing keyboarding programs. b(SCANS 1,4,10) Lab fee required. Prerequisite: None.

OFST 1101 Computerized Medical Recordkeeping
(1-5) [4 weeks] ..... 1 hour
Student will develop ability to operate a computer system in a medical/dental office. Hands-on experience to demonstrate competency using basic calculations to determine patient billing and to demonstrate ability to follow instructions/procedures for patient billing and patient recordkeeping will be provided. (SCANS 1,3,9,11) Prerequisite: None.

OFST 1207 Medical Terminology
(5-0) [8 weeks] ..... 2 hours
Student will demonstrate the acquisition of a basic medical vocabulary, develop listening and learning skills, and will prepare and interpret basic reports used in a typical hospital or medical office. (SCANS 1,2,6,9,11) Prerequisite: None.

OFST 1208 Medical Insurance Coding
(5-0) [8 weeks] ..... 2 hours
Student will demonstrate the ability to code medical forms, including patient chart, diagnoses, and office procedures. Will combine coding skills with organizing, analyzing, evaluating health data for completeness and accuracy; answering legal, governmental and insurance company inquiries; and communicating with patients. (SCANS 1,2,4,5,6,9,10) Prerequisite: OFST 1207 or equivalent.

OFST 1217 Beginning Medical Transcription
(3-3) [8 weeks] ..... 3 hours
Student will demonstrate skill in transcribing some basic reports used in a typical hospital or medical office. Provides transcription of actual dictation by doctors. Lab fee required. (SCANS 1,6,8,9,11) Prerequisite: OFST 1207, OFST 1322 or equivalent, type 50 wpm, some word processing background or consent of department chairperson.

OFST 1321 Beginning Keyboarding
(2-3) ..... 3 hours
Student will demonstrate touch-method skills on an electronic typewriter and a computer including numbers, symbols, and service mechanisms. Demonstrate competency to produce business letters, reports, tabulations, and other business documents. Designed for beginning typists or students with minimal typing skills. Lab fee required. (SCANS 1,6,8) Prerequisite: None.

OFST 1322 Intermediate Keyboarding
(2-3) ..... 3 hours
Student will develop additional keyboarding skills including composing and processing documents—business letters, reports, and tabulation materials—on the computer and the electronic typewriter. Student will demonstrate responsibility in following instructions and in practicing time management. Lab fee required. (SCANS 1,2,3,6,8,10) Prerequisite: OFST 1321 or equivalent.

OFST 1401 Data Entry/Business Calculations
(3-2) ..... 4 hours
Student will develop skill and accuracy using speed drills on the electronic calculator (10-key approach) and the computer. Student will demonstrate skill in percents, equations, discounts, net value and other business calculations using a variety of techniques. Will demonstrate ability to work with speed and accuracy while problem solving and doing data entry. (SCANS 1,3,4,8,9) Prerequisite: None.

OFST 1402 Business Language Skills
(3-2) ..... 4 hours
Student will develop competency in communicating written thoughts and ideas by creative thinking and creating documents with special emphasis on business. Includes grammar, sentence structure, paragraphing, proofreading, style, and composition activities. (SCANS 1,2,9,11) Prerequisite: OFST 1401.

OFST 1404 Beginning Word Processing
(3-2) ..... 4 hours
Student will develop skill in reading/following instructions, accessing WP program, and problem solving. Includes application of basic word processing skills: create, save, edit, format, print, and merge. Demonstrate ability to explain procedures and principles to instructor or other students. Lab fee required. (SCANS 1,2,6,8,9,10) Prerequisite: OFST 1321 or equivalent.

OFST 1406 Basic Spreadsheet
(3-2) ..... 4 hours
Student will demonstrate competency in recording transactions and manipulating data in spreadsheet and database formats. Will perform mathematical applications while keyboarding, editing, formatting, printing, creating graphics, and executing macros using the computer. (SCANS 1,2,3,6,9) Prerequisite: OFST 1401 or approval of instructor and OFST 1321 or approval of instructor.

OFST 1424 Office Bookkeeping
(3-2) ..... 4 hours
Student will demonstrate the ability to perform elementary bookkeeping skills in bookkeeping cycle, journalizing, posting, preparing a trial balance, and completing income statements and balance sheets for small business firms. Demonstrate an understanding of fundamental principles, procedures, and forms in bookkeeping as applied to records for both service and merchandising businesses. Computers will be used to process information. (SCANS 3,6,8,9,10) Prerequisite: or corequisite OFST 1406.

OFST 2232 Medical Office Procedures/Records
(3-2) [8 weeks] ..... 2 hours
Student will develop skill in analysis and use of medical records as it relates to the patient, physician and hospital. Student will develop skill in completing medical forms and using medical filing methods, storage, record retention and destruction of records. Will develop skill using problem solving exercises in office etiquette, medical/legal ethics and communication. (SCANS 1,2,4,6,9) Prerequisite: OFST 1207 or equivalent, OFST 1208, OFST 1402 or equivalent.

OFST 2304 Advanced Keyboarding
(2-3) ..... 3 hours
Student will increase speed and accuracy using speed drills. Will develop skill in machine transcription, proofreading, and in producing mailable documents from unarranged material. Simulations in medical, legal, or general office provide decision making skills. Lab fee required. (SCANS 1,2,3,6,8,10) Prerequisite: OFST 1322 and (OFST 2401 may be taken concurrently).

OFST 2377 Cooperative Work Experience
(1-20) ..... 3 hours
Student will apply classroom training to work experience in an approved firm. Review of techniques, actual problem solving situations, and concepts are discussed in the one-hour lecture class. (SCANS 4,5,6,7,8,9,10,11) Prerequisite: six semester hours of keyboarding, eight semester hours of word processing, OFST 2421, (OFST 2420 may be taken concurrently) and permission of department chairperson.

OFST 2401 Advanced Word Processing
(3-2) ..... 4 hours
Student will develop skill using advanced word processing applications including advanced formatting, macros, styles, using word processing with other programs, outlining, master documents, graphics, and using reference manual. Exercises are designed to help students organize and maintain information and to make responsible decisions regarding assignments and time management. Lab fee required. (SCANS 1,2,3,4,6,9,10) Prerequisite: OFST 1404 (OFST 1322 may be taken concurrently).

OFST 2402 Information Processing
(3-2) ..... 4 hours
Student will develop skill in integrating word processing, data base, and spreadsheet using a Windows environment. Includes applications for problem solving and decision making. Lab fee required. (SCANS 1,2,3,4,6,9,10) Prerequisite: OFST 2401, (OFST 2304 may be taken concurrently).

OFST 2404 Desktop Publishing
(3-2) ..... 4 hours
Student will develop skill in using word processing and graphics to compose desktop publishing documents. Will create, store, edit, retrieve, and print business documents. Lab fee required. (SCANS 1,2,3,4,6,9,10) Prerequisite: OFST 2401, (OFST 2304 may be taken concurrently).

OFST 2417 Advanced Medical Terminology and Transcription
(3-3) ..... 4 hours
Student will demonstrate a mastery of extensive list of standard and contemporary terms and increase skill in transcribing different types of medical reports in 15 medical specialties. Lab fee required. (SCANS 1,2,4,6,9) Prerequisite: OFST 1207, OFST 1217, OFST 1402 or equivalent, type 50 wpm, some word processing experience will be needed for some reports.

OFST 2420 Business Communication
(3-2) ..... 4 hours
Student will demonstrate the ability to compose and edit various types of business communications—letters, memos, reports—using various word processing technologies. Develop skill in the interview process and composition of resumes. Activities in oral and written communication and teamwork will be provided. (SCANS 1,2,4,5,6,8,9,10,11) Prerequisite: OFST 1402, OFST 1322 (OFST 2401 or OFST 2402 may be taken concurrently).

OFST 2421 Office Procedures
(3-2) ..... 4 hours
Student will study modern office procedures which affect the office worker. Will demonstrate proper procedures required for written and oral communication, time management, filing, proofreading, telephone techniques, human relations in diversity, and applying proper technology for tasks using the computer. (SCANS 1,2,4,5,6,8,9,10) Prerequisite: OFST 1402, OFST 1404, OFST 1321, OFST 1406 (OFST 1322 and OFST 2401 may be taken concurrently).

OFST 2430 Computerized Bookkeeping
(3-2) ..... 4 hours
Student will study advanced bookkeeping theory as a continuation of OFST 1424. Student will computerize entries involving general and special journals, bookkeeping cycle, payroll, advanced accounts receivable and accounts payable, transactions and financial statements of partnerships and corporations, and analysis of financial statements. Various computerized programs will be used including spreadsheet and bookkeeping programs used by businesses. (SCANS 3,6,8,9) Prerequisite: OFST 1406, OFST 1321 or equivalent, OFST 1424.

Orientation

Faculty: Dr. David Tarver, director of counseling and career development; Fred Gaither, Rodney Hernandez, Judy Merrittt, Terri Pease, LaRae Phillips, Joanne Sanford, Mike Tincher, Rena Ventura-Jackson.

The orientation course (ORIE 1100) is designed to assist the student who is enrolled in college for the first time in gaining the knowledge necessary to function effectively in a college environment. It covers the policies, rules and regulations of Odessa College, as well as study skills and the state-mandated TASP requirements. All students who have never attended college before are required to enroll in ORIE 1100 during the first semester of attendance at Odessa College.

ORIE 1100 Orientation (HD 1101)
(1-0) ..... 1 hour
Helps students gain skills and knowledge necessary to function effectively in college environment including allocation of time and other resources. Familiarizes students with the catalog, handbook and campus. Includes information on the policies, rules and regulations of Odessa College, the state-mandated TASP testing requirement, standards of conduct, standards of progress and study skills. Required of all students who are enrolled in college for the first time. (SCANS 4,5,6,7,10).

Petroleum Technology

Faculty: J. D. Roberts, chair.

The Odessa College Petroleum Technology program is designed for people entering the industry for the first time and for employees in the industry who want to upgrade their skills. The two-year program is suggested for men and women who plan to work for producers, manufacturers, service firms or supply firms.

Course of Study for Associate in Applied Science Degree
Petroleum Technology

	Semester Hrs
General Education Requirements	17
ENGL 1301 Composition and Rhetoric or	
ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or	
SPCH 1321 Business and Professional Speech	3
COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government	3
MATH 1372 Technical College Algebra or	
MATH 1314 College Algebra or	
MATH 1371 College Algebra for Business	3
PHED (any two one-hour activity courses)	2
Elective (must be outside the major area)	3

	Semester Hrs
Major Requirements	**27**
PETR 1310 Rotary Drilling Fluids	3
PETR 1311 Well Completion Methods	3
PETR 1320 Production Methods	3
PETR 1380 Computers for Petroleum	3
PETR 2310 Drilling Methods	3
PETR 2325 Well Workover Methods	3
PETR 2360 Corrosion	3
PETR 2390 Petroleum Regulations	3
PETR 2377 Cooperative Work Experience	3
Related Requirements	**18**
PETR 1300 Petroleum Overview	3
[redacted] OSHA 2396	3
[redacted] OSHA 2398	3
[redacted] Petroleum Electives	6
OSHA 2395 Industrial Safety	3
Total Semester Hours	**65**

Certificates of Technology are available in the following job-specific fields. See the program chair for course requirements and Permian Basin job opportunities.

Certificate Options

Safety and Environmental Technician

	Semester Hrs
ENGL 1312 Report Writing	3
OSHA 2395 Industrial Safety (OSHA 29-CFR-1910 and 1926)	3
OSHA 2396 Hazardous Waste Operations and Emergency Response	3
OSHA 2398 Environmental Issues	3
[redacted] PETR 1380	3
Total Semester Hours SPCH 1315 or SPCH 1321	3 18

Well Head Pumper

TMTH 1370 Technical College Mathematics or higher level math	3
ENGL 1312 Report Writing	3
PETR 1300 Petroleum Overview	3
PETR 1320 Production Methods	3
PETR 1380 Computers for Petroleum	3
PETR 2325 Well Workover Methods	3
PETR 2360 Corrosion	3
PETR 2388 Artificial Lift	3
Total Semester Hours	**24**

Gas Compressor Operator

TMTH 1370 Technical College Mathematics or higher level math	3
ENGL 1312 Report Writing	3
PETR 1300 Petroleum Overview	3
PETR 1380 Computers for Petroleum	3
PETR 2331 Natural Gas Processing	3
PETR 2389 Gas and Liquid Measurement	3
OSHA 2398 Environmental Issues	3
Total Semester Hours	**21**

Gas Plant Operator

TMTH 1370 Technical College Mathematics or higher level math 3
ENGL 1312 Report Writing 3
PETR 1300 Petroleum Overview 3
PETR 1380 Computers for Petroleum 3
PETR 2331 Natural Gas Processing 3
PETR 2360 Corrosion 3
PETR 2389 Gas and Liquid Measurement 3
OSHA 2398 Environmental Issues 3

Total Semester Hours 24

Refinery Panel Operator

TMTH 1370 Technical College Mathematics or higher level math 3
ENGL 1312 Report Writing 3
PETR 1300 Petroleum Overview 3
PETR 1370 Petroleum Instrumentation 3
PETR 1380 Computers for Petroleum 3
PETR 2340 Refining Methods 3
OSHA 2398 Environmental Issues 3

Total Semester Hours 24

Petroleum Technology Courses

PETR 1300 Petroleum Overview
(3-0) ..... 3 hours
Provides the student with ability to understand overall intent and proper procedures in a variety of different petroleum technologies: exploration, drilling, production, transportation, marketing and refining. The student will be able to prioritize activities and reason the relationship between finding oil and gas and transporting it to the refinery. Students will be responsible for reading and analyzing charts and diagrams and calculating downhole displacements and pressures. (SCANS 1,3,4,6,8,9) Prerequisite: None.

PETR 1310 Rotary Drilling Fluids
(3-0) ..... 3 hours
Competencies include performing and interpreting basic calculations and tests that are performed on fluids used in the drilling process. The student will be able to evaluate and recognize the functions and properties of these various fluids, and prepare a daily report on his/her findings. (SCANS 3,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 1311 Well Completion Methods
(3-0) ..... 3 hours
Competencies enable student to read and evaluate the effects of drilling through the production formation and choosing the tools and procedures for logging, drill stem testing, running pipe, cementing, perforating, completion techniques and formation stimulation. The student will participate as a team member in recognizing problems and implementing a correct plan of action in completing an oil or gas well. (SCANS 1,2,5,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 1320 Production Methods
(3-0) ..... 3 hours
Introduces petroleum production. Competencies include the effects of decisions made in well completion techniques upon production, artificial lift, natural flow, lease layouts, lease equipment and basic problems and solutions. The student will perform basic calculations, interpret graphical results and evaluate information for a given oil or gas well. (SCANS 1,3,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 1370 Petroleum Instrumentation
(3-0) ..... 3 hours
Surveys instrumentation, measurement and control devices used within major aspects of the petroleum industry. Competencies include application, installation and operation of each. (SCANS 6,8,9)Prerequisite: PETR 1300 or consent of the department chair.

PETR 1380 Computers for Petroleum
(3-0) ..... 3 hours
Designed for the student in the petroleum technology program. Competencies emphasize use rather than programming. Presents history, fundamentals, terminology and software programs used in the petroleum industry as well as other industries. Examples such as word processors, data base, spread sheet, windows, graphics, etc... are used. Classroom exercises allow students to solve problems, make decisions, and project income from a producing oil an gas well Lab fee required. (SCANS 2,6,8,9) Prerequisite: None.

PETR 2310 Drilling Methods
(3-0) ..... 3 hours
Emphasizes the actual drillsite competencies necessary to drill an oil or gas well. Students learn to analyze problems such as downhole formation pressures. Volume calculations, downhole computer processing, and understanding the proper procedures and equipment to successfully drill a well are covered. (SCANS 3,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2325 Well Workover Methods
(3-0) ..... 3 hours
Presents basic competencies of oil and gas well servicing, workover, plugging, reentry, equipment needs and maintenance programs. Student will perform basic calculations, interpret wellbore schematics, prepare a schedule and select procedures, organize and evaluate information, and decide an economical plan for working over an oil and or gas well. (SCANS 1,3,4,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2331 Natural Gas Processing
(3-0) ..... 3 hours
Competencies include all aspects of natural gas processing and field handling techniques. Includes handling corrosives, corrosive and inert gases and equipment for separation, dehydration and control of natural gas. (SCANS 8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2340 Refining Methods
(3-0) ..... 3 hours
Basic competencies of petroleum refining techniques, process, equipment and support personnel. (SCANS 8) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2360 Corrosion
(3-0) ..... 3 hours
A problems-based course to provide competencies in the corrosive effects on surface and downhole equipment, pipelines, and other oilfield situations. Emphasizes terminology and techniques. Students will analyze basic causes and recommend the most reliable solutions. (SCANS 1,6,8,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2377 Cooperative Work Experience
(1-20) ..... 3 hours
A capstone course designed to inter-relate academic and vocational course lectures and labs with business and industry and work experiences. Under supervision of college faculty and a workplace supervisor, the student will achieve agreed upon workplace goals and objectives that will enhance the student's competency attainment in the areas of personal, interpersonal and problem solving skills. Weekly lectures will address key workplace competencies to enhance the employability of a technically competent graduate (SCANS 5,7,9,10,11) Prerequisite: Consent of the department chair.

PETR 2388 Artificial Lift
(3-0) ..... 3 hours
Designed for students who have completed production methods and for individuals who want to further their knowledge of various lift systems. Competencies stress practical aspects of artificial lift in conventional production systems. Includes such topics as sucker rod pumps, tubing and rod strings, tubing anchors, beam pumps, gas lift and submersible pumping systems, wellheads and equipment involved in secondary recovery systems. (SCANS 6,7,8) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2389 Gas and Liquid Measurement
(3-0) ..... 3 hours
Competencies include accuracy, quality and validity of gas and liquid measurement techniques for field and plant operating personnel. Emphasizes correct techniques of measurement and proper procedures to correct errors. (SCANS 3,6,9) Prerequisite: PETR 1300 or consent of the department chair.

PETR 2390 Petroleum Regulations
(3-0) ..... 3 hours
Covers all pertinent regulatory requirements and strictures affixed to the petroleum industry by agencies such as the RRC, DOT, FERC, DOE, and OSHA. The student will interpret and analyze the effects of such rulings and prepare the proper responses. (SCANS 1,2,6,9) Prerequisite: PETR 1300 or consent of the department chair.

OSHA 2395 Industrial Safety
(3-0) ..... 3 hours
Designed for industrial, manufacturing, and technical workers where state/federal regulations require industrial safety training. Course competencies meet 29-CFR-1910 and 1926. Course includes hazard communication, lock-out/tag-out, emergency action, confined space entry, and other industry related subjects. Major emphasis will be placed on written programs, training requirements and implementation of the programs to withstand OSHA inspections and civil litigation. (SCANS 6,8) Prerequisite: None.

OSHA 2396 Hazardous Waste Emergency Response
(3-0) ..... 3 hours
Designed for industrial, manufacturing, and technical workers where state/federal regulations require industrial safety training. Course competencies meet 29-CFR-1910.120 a-q training requirements. Course completers will be certified as a Hazardous Waste Operations Emergency Response Technician. (HAZWOPER) (SCANS 6,8) Prerequisite: None.

OSHA 2398 Environmental Issues
(3-0) ..... 3 hours
Designed for industrial, manufacturing, and technical workers where state/federal regulations require industrial safety training. Course competencies include critical safety and environmental issues in business and industry as well as related regulations and proper responses. Course covers RRC and SWR, related to drilling, production, waste prevention, pollution, and public safety. (SCANS 6,8,9)
Prerequisite: None.

Photography

Faculty: Steve Goff, chair.

Odessa College's photography program provides quality photo education for all members of the community. Photo students explore professional and artistic aspects of this visual medium by training in the basics of photography as a subject, a profession and a technology. A variety of courses are offered, including development of black and white, commercial technique, professional portraiture, color, the history of photography and areas of independent study. Opportunities are provided for students to exercise their creative talents. Upon completion of the photo curriculum, students will be prepared for continued studies at a university or entry level positions in the photographic industry. While limited equipment and some scholarships are available for those considering photography as a major, the department welcomes all students.

Course of Study for Associate in Applied Science Degree

Photography

	Semester Hrs
General Education Requirements	**29**
ARTS 1311 Design I	3
ACCT 1370 Elementary Accounting	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
MATH 1332 Structures of College Mathematics or higher level math	3
PHIL 2306 Introduction to Philosophy II (Ethics)	3
SPCH 1321 Business and Professional Speech	3
General Education elective	3
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**33**
PHOT 1331 Basic Photography I	3
PHOT 1332 Basic Photography II (PHOT 1331 & 1332 may be taken the same semester)	3
PHOT 1361 Photo Lab Technique I	3
PHOT 1362 Photo Lab Technique II (PHOT 1361 & 1362 may be taken the same semester)	3
PHOT 2370 History of Photography	3
PHOT 2371 Color Photography I	3
PHOT 2372 Color Photography II	3

****Approved Electives** **12**

Total Semester Hours **65**

** PHED 1100 should be the first course taken in physical education.*

*** Approved electives: COSC 1301, COMM 1307, MGT 1301 or MGT 2303, PHOT 2340, PHOT 2200, PHOT 2311, PHOT 2312, PHOT 2331, PHOT 2332, PHOT 2340, PHOT* 2360, PHOT 2380, PHOT 2390 and PHOT 2399.

Photography Courses

PHOT 1331 Basic Photography I
(2-4) ..... 3 hours
Introduces basic applied and aesthetic aspects of photography. The student will assess and select equipment, supplies and techniques to incorporate basic theories of film, exposure, development, filters and printing. (SCANS 4,8,9). Lab fee required. Prerequisite: TASP competency in reading, writing and math or consent of instructor.

PHOT 1332 Basic Photography II
(2-4) ..... 3 hours
A continuation of PHOT 1331. Designed for additional experience in the photographic medium. (SCANS 4,8,9) Lab fee required. Prerequisites: PHOT 1331; TASP competency in reading, writing and math or consent of instructor.

PHOT 1350 Photojournalism
(2-4) ..... 3 hours
Introduces basic aspects of photography for publications including the writing of cutlines. Emphasizes the various uses and outlets for news and feature photography. Students will participate in group assignments and decision-making. (SCANS 2,5,6,8,9) Lab fee required. Prerequisite: PHOT 1331 or consent of the instructor; TASP competency in reading, writing, and math or consent of instructor.

PHOT 1361 Photo Lab Technique I
(2-4) ..... 3 hours
Designed to give advanced experience in darkroom printing and developing procedures. Successful completion qualifies student to work as a black and white lab technician in photographic industry. Includes projection printing, contact printing, black and white print finishing, toning and mixing photographic chemistry. (SCANS 6,8) Lab fee required. Prerequisites: PHOT 1331; TASP competency in reading, writing and math or consent of instructor.

PHOT 1362 Photo Lab Technique II
(2-4) ..... 3 hours
A continuation of PHOT 1361. Designed to give additional experience in photo lab work. (SCANS 6,8) Lab fee required. Prerequisite: PHOT 1361 or consent of the instructor; TASP competency in reading, writing, and math or consent of instructor.

2200 Print Finishing and Negative Retouching
(1-2) ..... 2 hours
Concerned with print finishing and negative retouching. Majority of time spent in color work since major emphasis of present-day studio work is in color. (SCANS 8) Lab fee required. Prerequisite: TASP competency in reading, writing and math or consent of instructor.

PHOT 2311 Commercial Photography I
(2-6) ..... 3 hours
Gives the student working knowledge in specialized field of commercial photography. Emphasizes use of large negative format and the view camera. Includes such photographic problems as magazine article illustration, product photography, fashion, architectural studies and window displays. (SCANS 6,8) Lab fee required. Prerequisites: PHOT 1332 and PHOT 1362; TASP competency in reading, writing and math or consent of instructor.

PHOT 2312 Commercial Photography II
(2-6) ..... 3 hours
A continuation of PHOT 2311. Provides additional experience in commercial field. (SCANS 6,8) Lab fee required. Prerequisites: PHOT 2311; TASP competency in reading, writing and math or consent of instructor.

PHOT 2331 Portrait Photography I
(2-4) ..... 3 hours
Deals basically with professional studio-type portraits. Practice gained by making photographs through actual work with adult and child models. (SCANS 5,8) Lab fee required. Prerequisite: PHOT 1332; TASP competency in reading, writing and math or consent of instructor.

PHOT 2332 Portrait Photography II
(2-4) ..... 3 hours
A continuation of PHOT 2331. Offers additional experience in area of studio portraiture. Emphasizes outdoor portraiture. (SCANS 5,8) Lab fee required. Prerequisite; PHOT 2331; TASP competency in reading, writing and math or consent of instructor.

PHOT 2340 Salon Photography
(2-4) ..... 3 hours
Requires extensive portfolio of semester's work. Includes making salon prints. Uses landscapes, classical portraits, environmental photography, character studies, and documentary photography as subjects. (SCANS 6,8) Lab fee required. Prerequisite: PHOT 1332; TASP competency in reading, writing and math or consent of instructor.

PHOT 2360 Expressive Photography
(2-4) ..... 3 hours
Offers opportunity to explore formal, professional and individual uses of photography. Aims at goal of personal development of the art of seeing and capturing that which is seen in the photographic process. (SCANS 8,9) Lab fee required. Prerequisite: PHOT 1332; TASP competency in reading, writing and math or consent of instructor.

PHOT 2370 History of Photography
(3-0) ..... 3 hours
A survey course that emphasizes technical and aesthetic developments in a historical perspective. Includes beginning of the medium, inventors, development of photographic equipment, styles of creative masters, aesthetic trends and social impact of photography. (SCANS 6) Prerequisite: TASP competency in reading and writing or consent of instructor.

PHOT 2371 Color Photography I
(2-4) ..... 3 hours
Consists of taking photographs with color film, both negative and transparency. Introduces basics of color printing. (SCANS 8) Lab fee required. Prerequisites: PHOT 1332; TASP competency in reading, writing and math or consent of instructor.

PHOT 2372 Color Photography II
(2-4) ..... 3 hours
A continuation of PHOT 2371. Includes additional work in sensitometry and advanced lab technique. (SCANS 8) Lab fee required. Prerequisites: PHOT 2371; TASP competency in reading, writing and math or consent of instructor.

PHOT 2380 Photographic Problems
(1-5) ..... 3 hours
Allows, with approval by and under supervision of the instructor, pursuit of a particular project or theme utilizing the photographic process. Weekly progress reports mandatory. Offered alternately with PHOT 2340 and PHOT 2360. (SCANS 4,8,9) Lab fee required. Prerequisite: PHOT 1332 and PHOT 1362; TASP competency in reading, writing and math or consent of instructor.

PHOT 2390 Graphics
(2-4) ..... 3 hours
A one-semester course designed to teach advanced copying work and use of special copy cameras. Includes copying continuous tone and line drawings, as well as layout, makeup and use of specialized films and developers. (SCANS 8) Lab fee required. Prerequisites: PHOT 1332; TASP competency in reading, writing and math or consent of instructor.

PHOT 2399 Special Topics in Photography
(2-12) ..... 3 hours
Photography internship program which provides photography majors with practical experience in specialized applications of photography. Areas covered include such topics as ophthalmic photography which presents fluorescein angiography, fundus photography, slit lamp photography, external photography, surgical photography and audiovisual production. (SCANS 5,8) Lab fee required. Prerequisite: PHOT 1331 and consent of the instructor; TASP competency in reading, writing and math or consent of instructor.

Physical and Health Education

Faculty: Jay Box, chair; James Carlson, Karin Carlson, Ken Hefner, Kenneth Hines, Pat Hodges, Kyle Howard, Betty Hudson, Bill Lawrence, (ret.), Que McMaster, Rick Zimmerman.

Physical Education is the sum of all those changes that take place in individuals as the result of movement experience.

The principal objectives of this department are as follows: (1) to develop the students' neuromuscular skill and organic system through movement experiences, (2) to increase the students' knowledge, insight, understanding and interest in movement experiences and (3) to improve the students' recreational and leisure-time skills as well as their standards of behavior in these selected movement areas.

Since movement is the medium through which this department achieves its objectives, students have several opportunities to select those movement experiences (from 34 different areas in the Physical Education curriculum) that will best contribute to their well-being, their leisure-time skills and to their total educational development. The physical education department offers two options for the associate's degree.

Course of Study for Associate in Science Degree

Exercise and Sport Science Option

	Semester Hrs
General Education Requirements	**45**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
SPCH 1311 Introduction to Speech Communication	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1314 College Algebra or More Advanced	3
MATH 1342 Mathematical Statistics or More Advanced	3
**BIOL 1408 General Biology I	4
BIOL 1409 General Biology II	4
BIOL 2404 Human Anatomy and Physiology	4

Elective (must be outside the major area) 3

Major Requirements 10
- *PHED (Any four one-hour activity courses) 4
- PHED 1301 Orientation in Health, Physical Education and Recreation 3
- PHED 2376 Prevention and Care of Athletic Injuries 3

***Approved Electives** 9

Total Semester Hours 67

*Students majoring in Exercise and Sport Science in preparation for a teaching career are required to take four activity classes selected from the following areas:

One class from Fitness Activities
One class from Lifetime Activities
One class from Team Sports
One class from Aquatics

It is suggested that PHED 1100 be the first course taken in physical Education. Competitive athletics courses will not be counted toward the four-activity requirement for exercise and sport science majors.

***CHEM 1311 and CHEM 1312 may be substituted for BIOL 1408 and BIOL 1409.*
****Electives will be selected from the following three-hour classes based on senior institution requirements: PHED 1238, PHED 2278, PHED 1304, PHED 1306, PHED 1308, PHED 1309, PHED 1321, PHED 1322, PHED 1331, PSYC 2301 and SOCI 1301.*

In addition, it is also recommended that Exercise and Sport Science majors take more than the minimum of four one-hour activity classes in their preparation for a teaching career. Students should consider the requirements of the senior college to which they intend to transfer and plan their junior college scholastic schedule accordingly.

Physical Education activity classes meet three hours weekly for one semester-hour credit. An activity class may be repeated once for credit. All Physical Education activity classes require a lab fee.

Course of Study for Associate in Science Degree

Athletic Training Option

Semester Hrs

General Education Requirements 40
- ENGL 1301 Composition and Rhetoric 3
- ENGL 1302 Composition and Literature 3
- ENGL (Sophomore Level) 6
- SPCH 1311 Introduction to Speech Communication 3
- GOVT 2301 U.S. and Texas Government 3
- GOVT 2302 American National Government 3
- HIST 1301 U.S. History to 1877 3
- HIST 1302 U.S. History from 1877 3
- MATH 1314 College Algebra or More Advanced 3
- *PHED (Any two one-hour activity courses) 2
- BIOL 1408 General Biology I 4
- BIOL 1409 General Biology II 4

Elective (must be outside the major area) 3

Major Requirements **18**
- PHED 1306 First Aid 3
- PHED 1304 Personal and Community Health 3
- PHED 2376 Prevention and Care of Athletic Injuries 3
- PHED 1171 Athletic Training Clinical Practicum I 1
- PHED 2171 Athletic Training Clinical Practicum II 1
- PHED 2278 Nutrition in Exercise and Sport 3
- BIOL 2404 Human Anatomy and Physiology 4

****Approved Electives** **6**

Total Semester Hours **67**

**PHED 1100 should be the first course taken in Physical Education.*
*** Approved Electives: CHEM 1311, CHEM 1312, CIS 1401, PHED 1238, PHED 1301, PHED 1331, PSYC 2301 and SOCI 1301.*

The Athletic Training Program is designed to meet the lower level requirements of the National Trainers Association and the state of Texas Licensure Act for Athletic Trainers. The program is a practical education-work experience approach to gaining the knowledge and skills needed to fulfill requirements for national certification as determined by the NATA and Texas state licensure as determined by the Texas Department of Health.

The Odessa College Physical Education Degree option in Athletic Training is designed to meet the first two-year needs of students interested in pursuing a career in athletic training and meeting the specific educational and practicum requirements outlined by these two organizations.

Fitness Activities

PHED 1100 Lifestyle Assessment and Modification (PE 1100)
(0-3) ..... 1 hour
Provides learning opportunities to introduce and maintain higher education health standards. Includes assessment of cardiovascular endurance, muscular strength and endurance, flexibility, body composition, nutrition, stress and blood pressure. Students will select and participate in physical activities which will produce desired physical results. This course culminates with an individualized lifelong wellness plan. Lab fee required. (SCANS 3,4,9,10) Prerequisite: None.

PHED 1101 Aerobic Dance (PE 1101)
(0-3) ..... 1 hour
A total body conditioning program emphasizing cardiovascular endurance, muscular strength and endurance, flexibility, coordination, and muscle tone. Students will perform basic calculations to determine appropriate target heart rate zones, establish fitness goals, and select appropriate activities to attain those goals. Students will participate in a group project. An exercise log will be kept by class participants detailing time spent in aerobic activities. Students will analyze postural and nutritional habits and be encouraged to initiate healthful lifestyle changes when needed. Includes a preliminary one time, two-hour orientation. Lab fee required. (SCANS 3,4,5,9,10) Prerequisite: None.

PHED 1102 Cycling (PE 1117)
(0-3) ..... 1 hour
Designed to give basic understanding of principles of cycling; includes pedal cadence, shifting, gear ratio, training safety and maintenance. Students will be required to set personal fitness goals and to monitor their progress during the course. Requires special fee. (SCANS 9,10) Prerequisite: None.

PHED 1103 Defensive Tactics (PE 1118)
(0-3) ..... 1 hour
Includes lectures, demonstrations and practice in basic skills and techniques of a variety of defensive movements and protection methods. Students will learn vulnerable areas of the human body that will enable students to defend themselves against an attacker. Self-confidence and self-management will be enhanced by class participation. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1104 Advanced Defensive Tactics (PE 1119)
(0-3) ..... 1 hour
Includes lectures, demonstrations and practice in basic advanced techniques of self-protection as well as striking and delivering a variety of kicks. Self-confidence and self-management will be enhanced by class participation. Lab fee required. (SCANS 9,10) Prerequisite: PHED 1103.

PHED 1105 Gymnastics (PE 1133)
(0-3) ..... 1 hour
Includes instruction in performance of various gymnastics skills on all apparatus. Instruction includes flexibility and strength training as well as spotting techniques. Student will use efficient learning techniques to acquire and apply new knowledge and skills. Each student will develop self-esteem and self-management skills through participation in this class. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1106 Jogging/Walking (PE 1139)
(0-3) ..... 1 hour
A computer-monitored, instructor-guided program to enhance cardiovascular fitness through jogging and/or walking. Students will perform basic calculations to determine appropriate target heart rate zones. Students will establish fitness goals and select appropriate activities to attain these goals. Pre and post assessments will allow students to monitor progress toward their fitness goals. Includes a preliminary one time, two-hour orientation. Lab fee required. (SCANS 3,4,9,10) Prerequisite: None.

PHED 1107 Judo/Karate (PE 1140)
(0-3) ..... 1 hour
Emphasizes basic skills and techniques of American karate. Students will learn vulnerable areas of the human body and be instructed in defensive and offensive techniques to protect oneself. Students will work in small groups and partner situations in which personal qualities will be secondary benefit of this class. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1108 Physical Conditioning, Aerobic Super Circuit (PE 1149)
(0-3) ..... 1 hour
Combines weight lifting with aerobic activities in a structured, formatted conditioning program that trains the whole body. Orientation and physical assessments enable students to personalize their workouts and help them attain their fitness goals. Workouts are computer monitored and instructor enhanced. Includes a preliminary one-time, two-hour orientation. Requires special fee.(SCANS 4,9,10) Prerequisite: None. (Must be at least 16 years old.)

PHED 1109 Physical Conditioning, Aerobic Super Circuit—Advanced (PE 1152)
(0-3) ..... 1 hour
Combines weightlifting with aerobic activities in a structured, formatted conditioning program that trains the whole body. Orientation and physical assessments enable students to personalize their workouts and help them attain their fitness goals. Workouts are computer monitored and instructor enhanced. Also includes instruction in the proper techniques of training specific body areas. Includes a preliminary one-time, two-hour orientation. Requires special fee. (SCANS 3,4,9,10) Prerequisite: PHED 1108 or consent of the instructor. (Must be at least 16 years old.)

PHED 1110 Trampoline (PE 1174)
(0-3) ..... 1 hour
A gymnastics class specializing in acquisition of various trampoline skills, including flexibility and spotting. Uses efficient learning techniques to acquire and apply new knowledge and skills. Sociability and self-control will be secondary benefits of class participation. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1111 Weight Training (PE 1179)
(0-3) ..... 1 hour
Emphasizes increasing strength through proper techniques of lifting and weight training. Orientation and physical assessments enable students to personalize their workouts and help them attain their fitness goals. Students will perform basic calculations to determine appropriate workload, volume, sets, repetitions, intensity, progression and recovery to meet their fitness goals. Includes a preliminary one-time, two-hour orientation. Lab fee required. (SCANS 3,4,9,10) Prerequisite: (Must be at least 16 years old).

PHED 1112 Adaptive Personalized Fitness
(0-3) ..... 1 hour
This course consists of three major components, (1) cardiovascular conditioning, (2) strengthening exercises, (3) range of motion stretching and relaxation techniques. This class is designed to introduce physically challenged P.C.S. students to a variety of physical activities including; rhythmical movement, aquatics, hydro-fitness (resistance training), walking/joggg. P.C.S. students are defined as students with temporary injuries, severely obese individuals (over 40%) body fat percentage) and permanently disabled students. These individuals will be assessed and given an individualized exercise program. May be repeated for credit. (SCANS 5,9,10,) Prerequisite: Approval by the department chair.

Lifetime Activities

PHED 1116 Badminton (PE 1107)
(0-3) ..... 1 hour
Instruction and skill development of the basic skills of badminton: Serve, clear, smash, drop and net shots. Knowledge of the history, rules and basic strategy for singles and doubles will be acquired. Lab fee required. (SCANS 10) Prerequisite: None.

PHED 1117 Bowling (PE 1115)
(0-3) ..... 1 hour
The student will learn the mechanics of the approach, release and execution of 3 different styles of bowling. The course will also cover scorekeeping (automated and manual) pin and spot bowling, point of aim, rules, etiquette, and fun competitive games. Requires special fee. (SCANS 3,10) Prerequisite: None.

PHED 1118 Social Dance (PE 1160)
(0-3) ..... 1 hour
Includes instruction in basic dance skills, positions, rhythms, steps and formation, i.e. Country Western (Cotton-Eyed Joe, Two-Step, Waltz, Polka, and Schottishe), line dancing, and conventional ballroom as well as most current and most popular dances. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1119 Golf (PE 1130)
(0-3) ..... 1 hour
The student will learn the basic fundamentals of golf including grip, putting, chipping, and full swing. The course will cover a basic understanding of rules, etiquette, and types of competitive play available to the golfer. Requires special fee. (SCANS 3,9,10) Prerequisite: None.

PHED 1121 Racquetball (PE 1153)
(0-3) ..... 1 hour
Instruction in and development of fundamental skills such as basic strokes, basic shots, serve, court positioning, rules and variations of the game. Lab fee required. (SCANS 10) Prerequisite: None.

PHED 1122 Recreational Sports (PE 1156)
(0-3) ..... 1 hour
Presents skills and rules for pool, ping-pong and a variety of board games. Emphasis will be on the aspects of participation in these activities, as well as the cognitive and affective nature of rules, history, skills and etiquette of the sport/games. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1123 Skiing (PE 1178)
(0-3) ..... 1 hour
This course is designed to prepare the student for efficient skiing techniques to apply to different types of terrain/snow conditions encountered on the required ski trips during the Mid-Winter and/or Spring sessions. Students should check with senior institution regarding course transferability. Special fee required. (SCANS 9,10) Prerequisite: None.

PHED 1124 Tennis, Beginning (PE 1171)
(0-3) ..... 1 hour
Emphasizes beginning skills in execution of forehand and background strokes, the serve and the volley. Includes rules, strategies and etiquette in both singles and doubles. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1125 Tennis, Advanced (PE 1172)
(0-3) ..... 1 hour
Emphasis placed on proper execution of basic strokes as well as specialty shots such as the lob, overhead and spins. Includes competitive activities in singles and doubles. Lab fee required. (SCANS 9,10) Prerequisite: PHED 1124 or consent of the instructor.

Team Sports

PHED 1128 Basketball, Men's (PE 1110)
(0-3) ..... 1 hour
Presents rules of the sport while emphasizing individual and team fundamentals. The class teaches individuals how to contribute to a group effort and how to recognize specific basketball problems and devise strategies to overcome those problems. In addition, participants are encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1129 Basketball, Women's (PE 1113)
(0-3) ..... 1 hour
Presents rules of the sport while emphasizing individual and team fundamentals. The class teaches individuals how to contribute to a group effort and how to recognize specific basketball problems and devise strategies to overcome those problems. In addition, participants are encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1130 Cheerleading (PE 1116)
(0-3) ..... 1 hour
Introduces basic skills and techniques of cheerleading such as partner stunts, incorporation of pyramids, safety techniques and jumps. By participating as a team, individuals learn how to cooperate with other team members in solving problems and in motivating a crowd. Performing at athletic events permits the individuals an opportunity to exhibit responsibility as well as to build self esteem. Lab fee required. (SCANS 5,9.10) Prerequisite: Consent of the instructor.

PHED 1131 Football, Touch (PE 1124)
(0-3) ..... 1 hour
Presents rules of the sport while emphasizing individual and team fundamentals. The class teaches individuals how to contribute to a group effort and how to recognize specific football problems and devise strategies to overcome those problems. In addition, participants are encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1132 Rodeo (PE 1158)
(0-3) ..... 1 hour
Presents rules of the sport while instructing individuals on the fundamentals of all rodeo events, both men's and women's individual and team. The class teaches individuals how to contribute to a group effort while encouraging individuals to excel in one specialized rodeo area. Participants are taught how to recognize and solve specific rodeo event problems. Students are also encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1133 Softball (PE 1163)
(0-3) ..... 1 hour
Presents rules of the sport while emphasizing individual and team fundamentals. The class teaches individuals how to contribute to a group effort and how to recognize specific softball problems and devise strategies to overcome those problems. In addition, participants are encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1134 Volleyball (PE 1176)
(0-3) ..... 1 hour
Presents rules of the sport while emphasizing individual and team fundamentals. The class teaches individuals how to contribute to a group effort and how to recognize specific volleyball problems and devise strategies to overcome those problems. In addition, participants are encouraged to set individual and team goals and exert effort necessary to accomplish those goals. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

Aquatics

PHED 1146 Red Cross Life Saving (Life Guarding) (PE 1159)
(0-3) ..... 1 hour
An advanced aquatic course that prepares the individual to deal with life threatening situations in various aquatic environments. Skills areas include assists, carries, defenses, releases, equipment rescues, facility safety and others. NRC Lifeguard certification is offered upon successful completion. Lab fee required. Prerequisite: Advanced swimming skills. Lab fee required. (SCANS 5,9,10) Prerequisite: None.

PHED 1147 Swimming, Beginning (PE 1165)
(0-3) ..... 1 hour
This course in basic water safety is designed to make adults reasonably safe while in or near water. Topics include: physical and mental adjustment to water, buoyancy and body positioning, propulsion and coordinated stroking, and personal safety. Fundamentals of swimming and fitness will be stressed. Lab fee required. (SCANS 9,10) Prerequisite: None.

PHED 1148 Swimming and Diving, Advanced (PE 1166)
(0-3) ..... 1 hour
This course is designed for the swimmer possessing sufficient skills in aquatics to allow for an understanding of the hydrodynamic principles associated with six strokes. The course will enable the individual to increase physical conditioning by designing individualized programs incorporating distance and interval training techniques into daily swim routines. Lab fee required. (SCANS 9,10) Prerequisite: PHED 1147 or consent of the instructor.

PHED 1149 Water Sports/Games (PE 1167)
(0-3) ..... 1 hour
A water conditioning program emphasizing muscle tone, strength, flexibility, coordination and cardiovascular endurance. This will be accomplished through participation in several water sports activities (water polo, volleyball and basketball). Emphasis will be on basic skills, rules, and strategies of each activity. Both individual and team effort will be stressed. Lab fee required. (SCANS 5,9,10) Prerequisite: PHED 1147 or consent of the instructor.

PHED 1150 Water Aerobics (PE 1168)
(0-3) ..... 1 hour
Personal instruction, in an aquatic environment, which emphasizes muscle tone, strength, flexibility and cardiovascular endurance. Emphasis is placed on learning exercises, calculation individual target heart rates and in developing a routine. Each student will design and lead the class in the routine he or she has developed. Includes a preliminary one-time orientation. Lab fee required. Prerequisite: None.

PHED 1152 Scuba Diving (PE 1164)
(0-3) ..... 1 hour
The course includes instruction in the proper use of equipment, safety, physiology and open water diving. Drills are performed under water as to how divers can work together in assisting one another in dangerous situations. Students completing course requirements will receive certification. Requires special fee. Prerequisite: PHED 1147 or consent of the instructor.

Competitive Athletics

PHED 1136 Varsity Baseball (PE 1195)
(0-3) ..... 1 hour
Designed for advanced baseball players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1137 Basketball, Varsity (PE 1181)
(0-3) ..... 1 hour
Designed for advanced basketball players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1138 Golf, Varsity (PE 1183)
(0-3) ..... 1 hour
Designed for advanced golfers competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1139 Rodeo, Varsity (PE 1193)
(0-3) ..... 1 hour
Designed for advanced participants in rodeo competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1140 Tennis, Varsity (PE 1189)
(0-3) ..... 1 hour
Designed for advanced tennis players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1141 Track and Field, Varsity (PE 1191)
(0-3) ..... 1 hour
Designed for advanced participants in track and field competing on the collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 1171 Athletic Training Clinical Practicum I (HEd 1101)
(1-20) ..... 1 hour
Designed to satisfy the first-year practical experience of the Athletic Training student. Students will be instructed in documentation preparation, record keeping, and evaluation in the athletic training room. Students will experience individual and team "hands on" preparation in the areas of competition/practice preparation, competition/practice, and therapeutic settings. Students will be taught to recognize problems and design a plan of action for services such as, but not limited to, taping, bandaging, illness/injury evaluation, first aid emergency care, rehabilitation and related services. An ethical course of action will be stressed throughout the course. This course is under the supervision of a N.A.T.A. certified and State of Texas licensed athletic trainer. (SCANS 2,4,5,6,9,10) Prerequisite: Admission to the student Athletic Training Program and consent of the instructor.

PHED 2136 Varsity Baseball (PE 2195)
(0-3) ..... 1 hour
Designed for advanced baseball players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2137 Basketball, Varsity (PE 2181)
(0-3) ..... 1 hour
Designed for advanced basketball players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2138 Golf, Varsity (PE 2183)
(0-3) ..... 1 hour
Designed for advanced golfers competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2139 Rodeo, Varsity (PE 2193)
(0-3) ..... 1 hour
Designed for advanced participants in rodeo competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2140 Tennis, Varsity (PE 2189)
(0-3) ..... 1 hour
Designed for advanced tennis players competing on collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2141 Track and Field Varsity (PE 2191)
(0-3) ..... 1 hour
Designed for advanced participants in track and field competing on the collegiate level. Students will be taught to apply new knowledge and skills to improve individual and team performance. An understanding of the team concept and team unity will be stressed. (SCANS 5,9,10) Prerequisite: Consent of the instructor.

PHED 2171 Athletic Training Clinical Practicum II (Hed 2101)
(1-20) ..... 1 hour
Continuation of PHED 1171 for the second year Athletic Training student. Includes practice experience in Athletic Training Room management, medical referral and disposition of athletic injuries. Students will be instructed in how to set up a plan of action for injury administration and related services using both an individual and team approach. This course will also include instruction in documentation procedures and record keeping. An ethical course of action will be stressed. (SCANS 2,4,5,6,9,10) Prerequisite: PHED 1171 and/or consent of the instructor.

Physical and Health Education Lecture Courses

PHED 1238 Personal Health Assessment and Strategies (Hed 1202)
(2-0) ..... 2 hours
Provides instruction in lifestyle assessment and behavior change strategies in areas of physical fitness, nutrition and stress management. Emphasis is placed on the analysis of these components to enable the student to calculate body fat percentage, recognize deficiencies in diet and nutrition, reinforce positive health behaviors conducive to longevity and fitness, and select relevant activities leading to the improvement of personal health. (SCANS 3,4,7,9,10) Prerequisite: None.

PHED 1301 Orientation in Health, Physical Education and Recreation (PE 1301)
(3-0) ..... 3 hours
Provides instruction in the historical and philosophical basis of physical and health education and recreation. Emphasis is placed on understanding the foundations and objectives of curricula development, identifying activities and skills relevant to program development in PHER, demonstrating leadership skills in group discussions and activities pertinent to organization of educational principles of program development consistent with the goal of new curricula design, sociological, and biological aspects of PHER, and reinforcing positive personal characteristics consistent with ethical and social aspects of physical and health education and recreation. (SCANS 4,5,6,7,9,10) Prerequisite: None.

PHED 1304 Personal and Community Health (Hed 2301)
(3-0) ..... 3 hours
Provides instruction in the study of body organs and systems and health concepts and problems. Emphasis is placed on understanding the basic structure and functions of the human body, organizing and evaluating social systems for personal and community health, participating actively in projects with local public and community health systems demonstrating decision making and problem solving skills pertinent to delivery of social health services, and utilizing positive social characteristics when dealing with personal, public, and community health concerns. (SCANS 4,5,6,9,10) Prerequisite: None.

PHED 1306 First Aid (Hed 1301)
(3-0) ..... 3 hours
Provides multimedia instruction in American Red Cross standard first aid and CPR. Covers techniques for injury assessment, bandaging and splinting, and safe transportation of injured. Emphasis is placed on individual and group skills for responsible action, decision making, and problem solving when faced with an emergency or nonemergency situation; utilization of knowledge necessary for specific injury conditions; maintenance of standards of ethical care for first aid care. Certification may be obtained in basic adult and infant/child CPR. Special fee required. (SCANS 5,9,10,11) Prerequisite: None.

PHED 1308 Techniques of Officiating Sports I (PE 2301)
(2-2) ..... 3 hours
Provides instruction in effective officiating methods and techniques for basketball and track. Emphasis is placed on rules interpretation and the positive communication of that interpretation to others, organization of rules information relative to game and tournament play and protest procedures, utilization of problem solving techniques relevant to officiating contests, and maintenance of a positive self image and sociability in group contest environments. Lab fee required. (SCANS 5,6,9,10) Prerequisite: Consent of the instructor.

PHED 1309 Techniques of Officiating Sports II (PE 2302)
(2-2) ..... 3 hours
Provides instruction in effective officiating methods and techniques for gymnastics, tennis, and volleyball. Emphasis is placed on rules interpretation and the positive communication of that interpretation to others, organization of rules information relative to game and tournament play and protest procedures, utilization of problem solving techniques relevant to officiating contests, and maintenance of a positive self image and sociability in group contest environments. Lab fee required. (SCANS 5,6,9,10) Prerequisite: Consent of the instructor.

PHED 1321 Techniques of Coaching Sports I (PE 2303)
(2-2) ..... 3 hours
Provides instruction in fundamental skills of coaching, individual and team play, organization of practices, and the handling of teams during the competitive seasons of basketball and track. Emphasis is placed on the ability of the coach to teach, exercise leadership, negotiate internal team problems, organize and communicate necessary information pertinent to team success, monitor team progress, utilize problem solving and decision making skills, maintain ethical standards and responsibility for team actions, and clearly demonstrate skills necessary for effective communication and motivation of the team. Lab fee required. (SCANS 5,6,7,9,10,11) Prerequisite: Consent of the instructor.

PHED 1322 Techniques of Coaching Sports II (PE 2304)
(2-2) ..... 3 hours
Presents fundamental skills, individual and team play, organization of practices and handling of teams during the competitive season for gymnastics, tennis and volleyball. Lab fee required. Prerequisite: Consent of the instructor.

PHED 1331 Movement and Recreation (PE 1303)
(2-2) ..... 3 hours
Provides instruction in recreational activity training in basic movement skills. Emphasis is placed on the exploration and development of these skills through the utilization of simple games and activities, teaching and diversification of perceptual motor experiences to a broad population, organization and evaluation of information pertinent to the acquisition of movement skills, maintenance of responsible and ethical guidelines persistent with a target population, and development of communication skills necessary for the educational process. Lab fee required. (SCANS) 4,5,6,9,10,11) Prerequisite: None.

PHED 2278 Nutrition in Exercise and Sport (Hed 2204)
(2-0) ..... 2 hours
Provides instruction in the importance of proper nutrition in regard to physical activity and specifically sports participation. Emphasis is placed on basic nutritional concepts, demonstration of basic mathematical calculations in determining caloric intake and expenditure, decision making skills necessary for determining optimal weight and proper hydration, and demonstration of ethics and personal integrity in regards to ergogenic aids to athletic performance. (SCANS 3,9,10) Prerequisite: None.

PHED 2376 Prevention and Care of Athletic Injuries (Hed 2302)
(3-0) ..... 3 hours
Provides instruction in the study of the athletic training room and its problems, including massage, taping, bandaging, and care of sprains, strains, and wounds common to athletic participation. Emphasis is placed on basic administrative procedures and written record keeping skills, management of time and materials necessary for the proper function of the training room, participation and service to clients served by the athletic trainer, acquisition and evaluation of information relative to injury assessment and prevention of athletic injury, proper communication of care and rehabilitation of athletic injuries, demonstration of problem solving and decision making skills relative to injury care and management, and maintenance of responsibility, ethical behavior, and self limitation in the treatment of athletic injuries. (SCANS 2,4,5,6,9,10) Prerequisite: None.

Physical Therapist Assistant

Faculty: S. Lynn Dammann, chair; Peggy Manning, Molly Neiers.

The Physical Therapist Assistant Program leads to an Associate in Applied Science Degree and encompasses a two-year course of study. The program is designed to prepare skilled technical health workers to perform certain physical therapy procedures and related tasks under the direction and supervision of a licensed physical therapist. The physical therapist assistant performs treatment procedures that involve the therapeutic use of heat, cold, electromagnetic radiations, water, massage, ultrasound and therapeutic exercise and assists the physical therapist with assessment procedures.

The curriculum balances general educational and technical courses and includes supervised practicum work at local hospitals and private clinics. These combined experiences provide students with an opportunity for educational development as well as occupational competence.

Because practicum space is limited, students are admitted selectively. To be considered for admission to the program, prospective students must be a high school graduate or equivalent, achieve a satisfactory score on selected entrance examinations, have good character references, complete a specified number of volunteer or observation hours in a P.T. clinic, and be approved by the program admissions committee. After being accepted, students must maintain a grade of "C" in all Physical Therapist Assistant courses, BIOL 1170, BIOL 2401, and BIOL 2402. An average of "C" or better must be maintained in all other courses. Students failing to meet these scholastic requirements will be dropped from the program. All Physical Therapist Assistant students are required to have health and accident insurance. Liability insurance is also required and is a part of the regular college fee schedule. The Physical Therapist Assistant Program is accredited by the American Physical Therapy Association Commission on Accreditation in Physical Therapy Education.

Applicants or other interested persons seeking additional information should contact the Counseling Center at Odessa College. Testing deadline is February 28 and application deadline is March 31.

Course of Study for Associate in Applied Science Degree

Physical Therapist Assistant

Summer Session II

	Semester Hrs
ENGL 1301 Composition and Rhetoric	3
MATH 1332 Structures of College Mathematics I or higher level math	3

First Year

First Semester

BIOL 1170 Medical Terminology	1
BIOL 2401 Anatomy and Physiology I	4
PSYC 230[redacted] Applied Psychology	3
PTAP 1301 Clinical Pathophysiology	3
PTAP 1401 Introduction to Physical Therapy	4

Second Semester

BIOL 2402 Anatomy and Physiology II	4
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
PTAP 1302 Topics in Communication and Human Development	3
PTAP 1502 Fundamentals of Physical Therapy	5

Summer Session I

PTAP 1441 Clinical Practicum I	4

Summer Session II

SPCH 1321 Business and Professional Speech	3
Elective	3

Second Year

First Semester

PTAP 2401 Kinesiology	4
PTAP 2601 Principles of Therapeutic Exercise	6
PTAP 2342 Clinical Practicum II	3
*PHED One-hour activity course	1

Second Semester

PTAP 2702 Topics in Rehabilitation	7
PTAP 2443 Clinical Practicum IV	4
PHED One-hour activity course	1

**PHED 1100 should be the first course taken in Physical Education.*

PTAP 1301 Clinical Pathophysiology
(3-0) ..... 3 hours
Designed to acquaint first-year students with the pathophysiology, etiology, symptomatology, management, and prognoses of various pathological and injury-related problems treated in physical therapy. The ability to acquire information specific to diagnoses that affect the physical therapy treatment setting, diseases and injuries involving the musculosketal and neuromuscular systems, and the need for physical therapy intervention are stressed. (SCANS 6) Corequisite: PTAP 1401.

PTAP 1302 Topics in Communication and Human Development
(3-0) ..... 3 hours
Designed to enable students to understand systems of interaction in the health care setting. Encompasses psychosocial aspects of health care; verbal, non-verbal and written communication skills; patient-practitioner interaction, including working with diverse patient care situations; concepts of the practitioner's self-esteem and self-management and their impact on the health care setting; fundamental concepts of computer use as they relate to physical therapy; and human development from birth to death with special emphasis on normal sensorimotor development and aging. (SCANS 2,5,6,7,10,11) Corequisites: PTAP 1502. Prerequisites: PTAP 1301 and 1401.

PTAP 1401 Introduction to Physical Therapy
(3-3) ..... 4 hours
Designed to orient first-year students to the profession of physical therapy and the role of the physical therapist assistant. Historical background, legal aspects and ethical concepts that help prepare the student to participate as a member of the health care team, terminology used in the profession, body mechanics, transfers, activities of daily living, gait, vital signs, medical asepsis and bandaging are introduced. (SCANS 5) Corequisite: PTAP 1301.

PTAP 1441 Clinical Practicum I
(0-40) [6 weeks] ..... 4 hours
Provides the initial exposure to the clinical environment. Students observe and utilize skills obtained in the classroom and laboratory. Provides opportunities for selecting and applying procedures and equipment, improving decision making, problem-solving and reasoning abilities. Consists of approximately six weeks full-time experience under close supervision of a licensed physical therapist or licensed physical therapist assistant. (SCANS 8,9) Prerequisites: PTAP 1301, 1401, 1302 AND 1502.

PTAP 1502 Fundamentals of Physical Therapy
(4-3) ..... 5 hours
Designed to instruct students in application of therapeutic modalities and massage. Emphasizes application of equipment, indications and contraindications, medical efficacy and physiological effects pertinent to the various physical agents. (SCANS 8) Corequisites: PTAP 1302. Prerequisites: PTAP 1301 and 1401.

PTAP 2342 Clinical Practicum II
(0-16) [12 weeks] ..... 3 hours
Provides continued exposure to the clinical environment. Students observe and utilize skills obtained in the classroom and laboratory. Provides opportunities for selecting and applying procedures and equipment, and improving decision-making, problem-solving and reasoning abilities. Close supervision by a licensed physical therapist or licensed physical therapist assistant is required. (SCANS 8,9) Corequisites: PTAP 2401 AND 2601. Prerequisites: PTAP 1301,1401, 1302, 1502, and 1441.

PTAP 2401 Kinesiology
(3-3) ..... 4 hours
Designed to provide the student with a working knowledge of the human musculosketal and neuromuscular systems, and an understanding of how these systems interact to produce efficient human movement. The acquisition of muscle function and gait information by use of manual muscle testing and rudimentary gait analysis is included. (SCANS 6,7) Corequisites: PTAP 2342 and 2601. Prerequisites: PTAP 1301, 1401, 1302, 1502 and 1441.

PTAP 2443 Clinical Practicum IV
(0-40) [6 weeks] ..... 4 hours
Provides the final supervised clinical experience. Consists of an approximate six-week, full-time affiliation designed to simulate an actual working experience. Students observe and utilize skills obtained in the classroom and laboratory. Provides opportunities for selecting and applying procedures and equipment, and improving decision-making, problem-solving and reasoning abilities. The student will be able to improve upon the skills already learned and add additional techniques specific to individual facilities. Close supervision by a licensed physical therapist or licensed physical therapist assistant is required. (SCANS 8,9) Corequisite: PTAP 2702. Prerequisites: PTAP 1301, 1401, 1441, 1302, 1502, 2401, 2601 and 2342.

PTAP 2601 Principles of Therapeutic Exercise
(5-3) ..... 6 hours
Provides a study of basic theories and therapeutic application of exercise with emphasis on the neurophysiological elements of normal and abnormal function; facilitation of responses desired in the performance of exercise; acquisition of joint range of motion information by use of goniometry; monitoring and correcting patient performance; decision-making; problem-solving; and reasoning skills as they relate to therapeutic exercise. (SCANS 6,7,9) Corequisites: PTAP 2401 and 2342. Prerequisites: PTAP 1301, 1401, 1302, 1502 and 1441.

PTAP 2702 Topics in Rehabilitation
(5-6) ..... 7 hours
Integrates previously learned skills and techniques into the rehabilitation effort. Time management, creative thinking, decision-making, problem-solving, and reasoning ability as they relate to progressing the plan of treatment are emphasized. Sections of study will include long-term disability, prosthetics, orthotics, cardiac rehabilitation, respiratory care, sports medicine, work hardening, burn care, pediatrics and orthopedics. The course is completed during the first nine weeks of the semester to allow for the final full-time clinical practicum. (SCANS 4,9) Corequisite: PTAP 2443. Prerequisites: PTAP 1301, 1401, 1302, 1502, 1441, 2401, 2601 and 2342.

Physics

Faculty: Dr. E. Don Taylor, chair; Dr. Ashok Khosla.

The principal objective of the Physics Department is to train physicists at the college level. In addition, it seeks to provide for certain other majors the foundation in the fundamental physical principles necessary for effective work in engineering, medicine, dentistry, chemistry and technology.

Course of Study for Associate in Science Degree

Physics

	Semester Hrs
General Education Requirements	52
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	3
SPCH 1311 Introduction to Speech Communication	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U. S. History to 1877	3
HIST 1302 U. S. History from 1877	3
*MATH 2313 Calculus I	3

MATH 2314 Calculus II 3
MATH 2315 Calculus III 3
MATH 2320 Differential Equations 3
**PHED (Any two one-hour activity courses) 2
Foreign language sequence 1411, 1412, 2311, 2312 14

Elective (must be outside the major area) **3**

Major Requirements **8**
PHYS 2425 Engineering Physics I 4
PHYS 2426 Engineering Physics II 4

Total Semester Hours **63**

**Prerequisite to MATH 2313 should be taken during the summer prior to freshman enrollment. Students with strong mathematics background should consider advanced standing examinations.*
***PHED 1100 should be the first course taken in Physical Education.*

PHYS 1401 College Physics I (PHYS 1401)
(3-3) ..... 4 hours
A study of classical mechanics, molecular physics, and heat with applications. Recommended for students of medicine, dentistry, veterinary medicine, optometry, biology, and architecture. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. Lab fee required. (SCANS 1,3,6,9) Prerequisite: Passed all sections of the TASP exam and have a working knowledge of algebra and trigonometry.

PHYS 1402 College Physics II (PHYS 1402)
(3-3) ..... 4 hours
A study of classical electricity, magnetism, mechanical wave motion, optics, and practical aspects of modern physics. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. Lab fee required. (SCANS 1,3,6,9) Prerequisite: PHYS 1401.

PHYS 2425 Engineering Physics I (PHYS 1403)
(3-3) ..... 4 hours
A study of classical mechanics, and thermodynamics for students aspiring to professional academic degrees in the fields of physical science, various engineering specialties, and mathematics. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. Lab fee required. (SCANS 1,3,6,9) Prerequisite or corequisite: MATH 2313.

PHYS 2426 Engineering Physics II (PHYS 2401)
(3-3) ..... 4 hours
A study of classical electricity, magnetism, waves, and optics from a theoretical and engineering application viewpoint. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. Lab fee required. (SCANS 1,3,6,9) Prerequisite: PHYS 2425. Prerequisite or corequisite: MATH 2314.

PHYS 2427 Engineering Physics III (PHYS 2402)
(3-3) ..... 4 hours
A study of modern physics including atomic and nuclear phenomena, relativity, and quantum effects. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. Lab fee required. (SCANS 1,3,6,9) Prerequisite: PHYS 2426.

Psychology and Sociology

Faculty: Don Jacobs, chair, Mary Barker (ret.), Gordon Gillette, (ret.), Carla Wells, Georgann Wemple (ret.), Gregory D. Williams.

Psychology/Sociology department furnishes foundation courses for those students preparing to teach in elementary or secondary school as well as those planning to major in psychology or sociology. The subjects offered are often taken by students because of their general social and cultural value.

Both psychology and sociology majors should plan their programs with the assistance of a counselor. Psychologists and sociologists are frequently hired as college teachers and researchers. Applied fields for either include the following: counselors, personnel workers, ministers, social case workers, group workers, community organizers, labor-management mediators, medical social workers, etc.

State law determines requirements for certification of public school teachers. Prospective teachers should keep in mind that they must complete a teacher training program as outlined by their selected senior college. Therefore, students should plan their course work at Odessa College to include those courses which the senior college requires at the freshman and sophomore levels. Prospective teachers also should plan to take the required pre-entry test before applying for admission to any education program at the Texas senior college of their choice.

While Odessa College cannot offer courses in education, freshman and sophomore core curriculum courses that apply to elementary and secondary education teaching certificates are offered. These courses satisfy requirements for the Associate in Arts Degree at Odessa College.

Course of Study for Associate in Arts Degree

Psychology or Sociology

	Semester Hrs
General Education Requirements	**49**
*General Education Elective	3
Lab Sequence in BIOL, CHEM, or PHYS	8
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1332 Structures of College Mathematics I	3
MATH 1333 Structures of College Mathematics II	3
PHIL 2306 Introduction to Philosophy II	3
**PHED (Any two one-hour activity courses)	2
SPCH 1311 Introduction to Speech Communication	3

Elective (must be outside the major area) **3**

**Approved General Education Electives: ANTH 2301, ANTH 2351, ECON 2302, GEOG 1301, MATH 1316, PSYC 2315, SOCI 1306, SOCI 2319, SOCI 2371.*
***PHED 1100 should be the first course taken in Physical Education.*

In addition to the 52 hours listed above, the student must choose one of the following options.

Psychology Option

	Semester Hrs
Major Requirements	**12**
PSYC 2301 Introduction to Psychology	3
PSYC 2308 Child Psychology	3
PSYC 2319 Social Psychology	3
SOCI 1301 Principles of Sociology	3
Total Semester Hours	**64**

Sociology Option

	Semester Hrs
Major Requirements	**12**
PSYC 2301 Introduction to Psychology	3
SOCI 1301 Principles of Sociology	3
SOCI ~~1306~~ Social Psychology 2326	3
*SOCI 13% Elective Social Problems	3
Total Semester Hours	**64**

**Sociology Electives: SOCI 1306, SOCI 2301, SOCI 2306, SOCI 2319, and SOCI 2371.*

Course of Study for Associate in Arts Degree

Education

	Semester Hrs
General Education Requirements	**50**
BIOL 1408 General Biology I	4
BIOL 1409 General Biology II	4
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
GEOG 1301 Principles of Geography I or GEOG 1302 Principles of Geography II	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
MATH 1332 Structures of College Mathematics I	3
MATH 1333 Structures of College Mathematics II	3
*PHED (Any two one-hour activity courses)	2
CHEM 1311/CHEM 1111 General Inorganic Chem I and Fundamentals of Chem Lab I or GEOL 1403 (Physical Geology)	4
SPCH 1311 Introduction to Speech Communication or SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Elective (must be outside the major area)	**3**

**PHED 1100 should be the first course taken in Physical Education.*

In addition to the 53 hours listed on the previous page, the student must choose one of the following options.

Secondary Education Option

	Semester Hrs
Major Requirements	**12**
PSYC 2301 Introduction to Psychology	3
PSYC 2308 Child Psychology	3
*Psychology or Sociology Elective	6
Total Semester Hours	**65**

***Psychology and Sociology Electives: PSYC 2315, Personal Applications of Psychology; PSYC 2319, Social Psychology; and SOCI 1301, Principles of Sociology.*

Elementary Education Option

	Semester Hrs
Major Requirements	**9**
PSYC 2301 Introduction to Psychology	3
PSYC 2308 Child Psychology	3
SOCI 1301 Principles of Sociology	3
Related Requirements	**9**
ARTS 1301 Art Appreciation (Self-Paced)	3
MUSI 1306 Music Appreciation	3
PHIL 2306 Introduction to Philosophy II (Ethics)	3
Total Semester Hours	**71**

Psychology Courses

PSYC 2301 Introduction to Psychology (PSY 1301)
(3-0) ..... 3 hours
Presents a basic understanding of psychological terms, theories, and methodologies in the scientific discipline that studies behavior and mental processes. Cognitive abilities such as problem solving, decision making, and communication, affective states like building self-esteem and sociability, and behavioral events, where one participates as a group member, are explored. Information acquisition, interpretation, and communication of a psychological nature are the basis on which this course is predicated. In this way, psychological principles are understandable in the context of biology, the brain, neurotransmitters and hormones, personality theory, learning principles, life-span development, relationships, abnormal psychology, and therapies. A wide application of a variety of topics is the focus of this introductory course. (SCANS 5,6,9,10,11) Prerequisite: None.

PSYC 2302 Applied Psychology
(3-0) ..... 3 hours
Stresses the interpersonal challenges relating to co-workers and clients. Critical workplace competencies include leadership, negotiation, team building, cohesiveness, and communication. Analyzing the inter-relationships of organizational behavior across the spectrum from our similarities to our diversities is a major focus. Personal qualities that reinforce job success as responsibility, sociability, self-management, and workplace ethics are presented in practical, job-related situations to enhance the student's job future as an effective and valued employee. (SCANS 5,6,7,9,10). Prerequisite: None.

PSYC 2308 Child Psychology (PSY 2302)
(3-0) ..... 3 hours
Competencies emphasize child growth and development processes, including biological and environmental factors which shape personality and affect achievement from prenatal through adolescence. Requires observational case study where the student acquires, organizes, maintains, evaluates, and communicates case study, data and information. (SCANS 6). Prerequisite: None.

PSYC 2315 Psychology of Adjustment(PSY 2301)
(3-0) ..... 3 hours
Adjustment to life's difficult side is the focus of this course. Effectively managing one's time in the face of stress and time constraints, coping with a diversity of perception from others, interpreting and communicating information from others in different social settings provides students with a wide application of psychological information. In more tangential ways, personal qualities such as responsibility in the face of conflict and frustration will be addressed, along with self-management, and communication of problems and concerns to others that often present barriers to healthy adjustment. (SCANS 4,5,6,9,10,11). Prerequisite: None.

PSYC 2319 Social Psychology (PSY 2303)
(3-0) ..... 3 hours
Presents methodologies and research dealing with human behavior in social situations. Interpersonal abilities, being a team member, leadership roles, and adjustment to diversity is a major focus. Problem solving in groups, communicating with others, self-management skills, and responsibility as psychosocial attributes will be addressed. The way society's institutions, group affiliations, and group dynamics influence an individual's behavior is the emphasis of this course. (SCANS 5,9,10,11). Prerequisite: None.

Sociology Courses

SOCI 1301 Principles of Sociology (SOC 1301)
(3-0) ..... 3 hours
Presents terminology, concepts and theories that enable the student to analyze groups, institutions, and society from a sociological approach. Covers the various institutions that make up the society, and the various human interactions that dictate the characteristics surrounding social organizations. The course introduces information to the student emphasizing the relationship between culture and social interaction. Develop and facilitate students' critical thinking skills through organized evaluation of various social phenomena including deviant behavior, social change, and urbanization. (SCANS 6,9) Prerequisite: None.

SOCI 1306 Social Problems (SOC 2301)
(3-0) ..... 3 hours
Presents various sociological concepts that serve to analyze and communicate information pertaining to the historical and current causation and disposition of society's social problems. Through empirical research and various problem-solving techniques, the student will learn to recognize various constraints and processes that effect the relationship between society and the social problems therein. This course is designed to stimulate student awareness of various social problems in society, enabling the student to implement reasoning and analytical skills. Students will gain qualities that will enhance their personal/professional lives in regard to responsibility, sociability, integrity/honesty, and effective problem-solving communication. (SCANS 5,6,7,9,10,11) Prerequisite: SOCI 1301.

SOCI 2301 Sociology of the Family (SOC 1302)
(3-0) ..... 3 hours
Analyzes human relationships pertaining to varied aspects of courtship, mate selection, and marital adjustment. Includes problems of adjustment in each stage of the life cycle. Prerequisite: None.

SOCI 2306 Human Sexuality
(3-0) ..... 3 hours
Presents human sexuality from a biopsychosocial perspective with the intent that students acquire a scientific foundation of sexual knowledge. Students must acquire, interpret, and communicate a wide variety of information pertaining to psychosocial influences on human sexuality. Decision-making skills, personality qualities such as responsibility, self-esteem, and integrity, and communication of one's feelings and concerns are a major focus of this course. Social factors that influence sexuality, family attitudes, values, multi-media presentations, gender identity, and gender roles provide students with a scientific foundation in a multi-disciplinary approach. (SCANS 6,9,10,11). Prerequisite: None.

SOCI 2319 Race and Ethnic Relations (SOC 2302)
(3-0) ..... 3 hours
Presents the various racial and ethnic groups that comprise the predominate United States population. Stresses the various interpersonal and intergroup relationships between groups and institutions. Describes and evaluates the social interpretations and responsibilities as they pertain to prejudices and discriminations that are recognized across American society. The course teaches students to develop their own thinking skills and personal qualities as they relate to others in personal, professional, and social interactions. (SCANS 5,6,7,9,10,11) Prerequisite: SOCI 1301.

SOCI 2326 Social Psychology (SOC 2303)
(3-0) ..... 3 hours
Surveys research and theories dealing with human behavior in social situations. Includes attitudes, prejudice, interpersonal attraction, group behavior, conformity, motivation and conflict. Students may elect subject area heading appropriate to their major. Students may not receive credit for both PSYC 2319 and SOCI 2326. Prerequisites: PSYC 2301 or SOCI 1301 or consent of the instructor.

SOCI 2339 Juvenile Delinquency
(3-0) ..... 3 hours
Presents various theories and theoretical causations that pertain to juvenile delinquency. Cover the various institutions, diversion program, and ideologies that encompass the process dealing with juvenile delinquency behavior, and analyze and critique the juvenile justice process as it is presently applied. The course teaches students to develop their own thinking skills and analytical perspectives of juvenile justice data, the nature of delinquency, and the history and philosophy of the juvenile justice system. The course is designed to stimulate student awareness and facilitate student evaluation of the nature, extent, and causes of juvenile delinquency. (SCANS 5,6,7,9,10,11) Prerequisite: None.

SOCI 2371 Fundamental Research Design (SOC 2304)
(3-0) ..... 3 hours
Provides introduction to basic research designs utilized in social and behavioral sciences. Includes basic steps of scientific methods, descriptive and analytical studies, methods of data collection, use of available data, analysis and interpretation. Students should check with the senior institution to determine transferability of this course. Prerequisites: MATH 1342 Mathematical Statistics or MATH 1314 College Algebra; PSYC 2301 Introduction to Psychology or SOCI 1301 Principles of Sociology. Offered only in spring semester of even-numbered years.

Radiologic (X-Ray) Technology

Faculty: Sue Leach, chair; Sven Phillips, Dr. James Sheehan, medical advisor.

Odessa College, in cooperation with local hospitals, offers a Radiologic Technology Program designed to provide understanding, proficiency and skill. The program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT). Upon successful completion of the program, students are granted an Associate in Applied Science Degree, are eligible to apply for the certification examination given by the American Registry of Radiologic Technologists in diagnostic X-ray technology, and are eligible for state certification.

The curriculum balances general educational and technical courses with supervised practicums at local hospitals. These combined experiences provide students with an opportunity for educational development as well as occupational competence during the 24-month program.

Available practicum space limits enrollment; therefore, students are admitted on a selective basis. To be considered for admission to the program, a prospective student must be a high school graduate or equivalent, must achieve a satisfactory score on selected entrance examinations, must have character references and must be approved by the program admissions committee. After being accepted, students must maintain a "C" average in all Radiologic Technology courses and an average of "C" in all courses or they will be dropped from the program.

Applicants or other interested persons seeking additional information should contact the Radiologic Technology Program Director at the college. Prospective students are encouraged to submit their applications for admission by April 30, for review by the admissions committee.

Liability insurance must be purchased by the student at the beginning of each semester. Students must obtain and maintain a policy of health and accident insurance throughout their enrollment.

Course of Study for Associate in Applied Science Degree

Radiologic Technology

Summer Session II

	Semester Hrs
MATH 1332 Structures of College Mathematics or higher level math	3
XRAY 1304 Introduction to Radiologic Technology	3
XRAY 1314 Radiographic Positioning I	3

First Year

First Semester

BIOL 2404 Human Anatomy and Physiology	4
PHED 1100 Lifestyle Assessment and Modification	1
XRAY 1401 Radiographic Physics	4
XRAY 1111 Radiographic Positioning II	1
XRAY 1221 Clinical Practicum I	2

Second Semester

ENGL 1301 Composition and Rhetoric	3
PHED (One-hour activity course)	1
XRAY 1402 Principles of Radiographic Exposure	4
XRAY 1112 Radiologic Positioning III	1
XRAY 1322 Clinical Practicum II	3

Summer Sessions

Summer Session I

	Semester Hrs
GOVT 2301 U.S. and Texas Government or	
GOVT 2302 American National Government	3
XRAY 1323 Clinical Practicum III (12 weeks)	3

Summer Session II

SPCH 1321 Business and Professional Speech	3

Second Year

First Semester

COSC 1301 Introduction to Computer Systems	3
XRAY 2201 Special Imaging	2
XRAY 2401 Advanced Radiographic Procedures	4
XRAY 2321 Clinical Practicum IV	3
Elective (outside major)	3

Second Semester

XRAY 2202 Department Design and Operation	2
XRAY 2402 Radiation Biology and Pathology	4
XRAY 2322 Clinical Practicum V	3
****Approved Elective**	3

Summer Session I

XRAY 2323 Clinical Practicum VI	3

**PHED 1100 should be the first course taken in Physical Education.*
***Approved Electives: PSYC 2301, SOCI 1301, HIST 1301 or HIST 1302, GOVT 2301 or GOVT 2302 or ENGL 1302.*

XRAY 1111 Radiographic Positioning II

(0-4) ..... 1 hour

Competencies include discussion and demonstration of standard radiographic positioning of the thorax, abdomen, spine and routine contrast media procedures to include film critique (film evaluation regarding anatomy positioning and technical factors). Includes radiographic demonstration of common pathologies of the thorax, spine and abdomen with a discussion of technical compensation. Student is required to read, understand and demonstrate understanding of positioning materials by selecting necessary equipment and producing standard radiographs on radiographic phantoms. Students evaluate and correct performance following a discussion with the instructor identifying the problem and solution. Students will participate in teams demonstrating their ability to work with diversity, exercise leadership and teach others new skills. Lab fee required. (SCANS 1,5,6,7,8,9,10,11) Prerequisite: XRAY 1314 or consent of the department chair corequisites: XRAY 1221 and XRAY 1401.

XRAY 1112 Radiographic Positioning III

(0-3) ..... 1 hour

Competencies include discussion and demonstration of radiographic positioning of the cranium to include film critique (film evaluation regarding anatomy, positioning and technical factors). Includes radiographic demonstration of common pathologies of the cranium with a discussion of technical compensation. Student is required to read, understand and demonstrate understanding of positioning materials by selecting necessary equipment and producing standard radiographs on radiographic phantoms. Students evaluate and correct performance following a discussion with the instructor in identifying the problem and solution. Students will participate in teams demonstrating their ability to work with diversity, exercise leadership and teach others new skills. Lab fee required. (SCANS 1,5,6,7,8,9,10,11) Prerequisite: XRAY 1111 or consent of the department chair. Corequisites: XRAY 1322 and XRAY 1402.

XRAY 1221 Clinical Practicum I

(0-16) .....2 hours

Introduces the clinical environment at a major facility. Requires observing operation of the X-ray department while rotating through different work areas. Student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling them to meet patients' needs. Competencies include: the production of standard radiographs of the chest, abdomen, and upper and lower extremities to include film critique (film evaluation regarding anatomy, positioning and technical factors): reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment when producing standard radiographs on patients with direct supervision (pre-competency); demonstrate ability to prioritize and organize activities necessary to complete examinations; evaluate and correct performance, in the presence of a technologist, following a discussion identifying the problem and solution; completion of necessary paperwork (some on computer) related to radiographic examinations performed; demonstration of specific exams with a model (performance evaluation) is required. Presents clinical introduction to fluoroscopic examinations and film critique. Lab fee required. (SCANS 1,4,5,6,7,8,9,10,11) Lab fee required. Prerequisite: XRAY 1314 or consent of the department chair. Corequisites: XRAY 1111 and XRAY 1401.

XRAY 1304 Introduction to Radiologic Technology

(3-0) .....3 hours

Introductory course in which student must acquire and communicate information regarding the field of radiologic technology, professional ethics, darkroom procedures, medical terminology, prime exposure factors and technical factors of film quality. Students must listen and speak well enough to participate in group discussions. Requires locating, understanding and interpreting written information in prose and in graphs, developing narratives to explain graphs, and performance of basic calculations. Introduces basic physics of X-ray equipment and auxiliary devices. Student learns to consider risks to patients and others and chooses best alternatives in regard to basic radiation protection. (SCANS 1,2,3,6,9,10) Prerequisite: None.

XRAY 1314 Radiographic Positioning I

(0-12) [6 weeks] .....3 hours

Presents fundamentals of radiographic positioning and terminology used to describe radiographic projections. Competencies include discussion and demonstration of standard radiographic positioning of the upper and lower extremities to include film critique (film evaluation regarding anatomy, positioning and technical factors). Includes radiographic demonstration of common pathologies of the extremities with a discussion of technical compensation. Student is required to read, understand and demonstrate understanding of positioning materials by selecting necessary equipment and producing standard radiographs on radiographic phantoms. Students evaluate and correct performance following a discussion with the instructor identifying the problem and solution. Students will participate in teams demonstrating their ability to work with diversity, exercise leadership and teach others new skills. Lab fee required. (SCANS 1,5,6,7,8,9,10,11) Prerequisite: None.

XRAY 1322 Clinical Practicum II

(0-24) ..... 3 hours

Introduces the day shift clinical environment at a major facility. While rotating through different work areas student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling him to meet patients' needs. Competencies include: production of standard radiographs of the chest, abdomen, and upper and lower extremities with indirect supervision (post-competency), and radiographic examinations of the spine, skull and sinuses with direct supervision (pre-competency); film critique (film evaluation regarding anatomy, positioning and technical factors); reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment when producing standard radiographs on patients with direct supervision (pre-competency); indirect supervision (post competency); demonstrate ability to prioritize and organize activities necessary to complete examinations; students evaluate and correct performance, in the presence of a technologist, following a discussion identifying the problem and solution; completion of necessary paperwork (some on computer) related to radiographic examinations performed; assisting radiologist with fluoroscopic examinations and demonstrating specific exams with a model (performance evaluation). (SCANS 1,4,5,6,7,8,9,10,11) Prerequisite: XRAY 1221. Corequisites: XRAY 1112 and XRAY 1402.

XRAY 1323 Clinical Practicum III

(0-32) [12 weeks] ..... 3 hours

Emphasizes practice of basic radiographic procedures in positioning and darkroom techniques. Causes student to use anatomical terms. While rotating through different work areas student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling him to meet patients' needs. Competencies include: discussion and demonstration of all standard radiographic positions with direct supervision (pre-competency); indirect supervision (post-competency) to include film critique (film evaluation regarding anatomy, positioning and technical factors); reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment and producing standard radiographs on patients with the necessary supervision; ability to prioritize and organize activities necessary to complete examinations; evaluating and correcting performance, in the presence of a technologist, following a discussion identifying the problem and solution; completing necessary paperwork (some on computer) related to radiographic examinations performed; assist radiographers in obtaining radiographs on trauma patients; assist radiologist with fluoroscopic examinations and demonstrating specific exams with a model (performance evaluation). Includes the following in clinical rotations: special procedures, CT, breast imaging, MRI, quality assurance and heart catherization. (SCANS 1,4,5,6,7,8,9,10,11) Prerequisite: XRAY 1322 or consent of the department chair.

XRAY 1401 Radiographic Physics

(4-0) ..... 4 hours

Analyzes physical principles related to matter, energy, basic electricity, magnetism, induction principles and transformers, basic X-ray circuits, methods of rectification and construction of X-ray accessories. Presents physical principles of X-ray production, interaction of X-rays in matter and methods of X-ray detection and measurement. Students must be able to locate, understand, and interpret written information regarding the above in prose and in graphs, communicate written thoughts, perform basic calculations, and organize and maintain the information presented in this course. Preventive maintenance, electrical safety and troubleshooting equipment are presented. The student must listen and communicate well. (SCANS 1,2,3,6,8,11) Prerequisite: XRAY 1304. Corequisites: XRAY 1111 and XRAY 1221.

XRAY 1402 Principles of Radiographic Exposure
(4-2) ..... 4 hours
Presents characteristics of radiographic film construction, (locate, understand, and interpret written information in prose and graphs and create graphs with narrative to explain graph), design of radiographic darkrooms and automatic processing techniques. Troubleshooting of equipment is also included. Includes advanced radiographic principles such as review of prime exposure factors (requires decision making and problem solving), technique formation (requires performing basic calculations), body section radiography and conditions influencing radiographic exposure. Emphasizes radiation protection (consider risks to patients and others and choose best alternatives) and image quality. Teaches the students the components of the radiographic image and helps them to understand how components of imaging system affect the image. Requires two laboratory hours per week. Lab fee required. (SCANS 1,2,3,6,7,8,9) Prerequisite: XRAY 1401 or consent of the department chair. Corequisites: XRAY 1112 and XRAY 1322.

XRAY 2201 Special Imaging
(2-0) ..... 2 hours
Presents cross-sectional anatomy, ultrasound and magnetic resonance imaging. Includes complete review of anatomy systems and procedures, topographic anatomy, routine diagnostic positioning requiring communication of written thoughts and information. Includes film critique with reading of patient records for diagnosis. (SCANS 1,2,6) Prerequisite: XRAY 1112 or consent of the department chair. Corequisites: XRAY 2401 and XRAY 2321.

XRAY 2202 Department Design and Operation
(2-0) ..... 2 hours
Presents evaluation and correction of film fault, processing errors and exposure factors in producing radiographs of optimum quality. Emphasizes quality assurance concepts. Discusses equipment maintenance, equipment troubleshooting, and departmental design and administration. Explores innovative techniques of imaging. Student must locate, understand and interpret written information in prose and graphs and communicate written thoughts effectively. (SCANS 1,2,6,7,9) Prerequisite: XRAY 2201 or consent of the department chair. Corequisites: XRAY 2402 and XRAY 2322.

XRAY 2321 Clinical Practicum IV
(0-24) ..... 3 hours
Introduces the student to special clinical rotations. While rotating through different work areas student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling him to meet patient's needs. Competencies include: discussion and demonstration of all standard radiographic positions and ability to produce radiographs on trauma patients with direct supervision (pre-competency); indirect supervision (post-competency) to include film critique (film evaluation regarding anatomy, positioning and technical factors); reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment and producing standard radiographs on patients with the necessary supervision; ability to prioritize and organize activities necessary to complete examinations; evaluate and correct performance, in the presence of a technologist, following a discussion identifying the problem and solution; completion of necessary paperwork (some on computer) related to radiographic examinations performed; assisting radiographers in obtaining radiographs on trauma patients; assisting radiologist with fluoroscopic examinations; demonstrating specific exams with a model (performance evaluation). Includes the following in clinical rotations: special procedures, CT, breast imaging, MRI, heart catherization, ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1,4,5,6,7,8,9,10,11) Prerequisite: XRAY 1323 or consent of the department chair. Corequisites: XRAY 2401 and XRAY 2201.

XRAY 2401 Advanced Radiographic Procedures
(4-0) ..... 4 hours
Presents specialized and highly-technical procedures in radiology requiring the student to locate, understand and interpret written information in prose and graphs. Includes neuroradiography, digital X-ray imaging, computer tomography, angiography, arteriography, female studies, pediatric radiography, foreign body localization, stereoadiography, venipuncture and interventional procedures. Prerequisite: XRAY 1402 or consent of the department chair. (SCANS 1,2,6) Corequisites: XRAY 2201 and XRAY 2321.

XRAY 2402 Radiation Biology & Pathology
(4-0) ..... 4 hours
Presents a review of atomic physics. Stresses radiation biology and protection. Student must locate, understand, and interpret written information in prose and graphs and create graphs with a narrative to explain the graphs. Students are required to perform basic calculations, acquire, evaluate, organize and maintain information, understand the technological system and how the body reacts to radiation to decrease patient dose. Student must select technical factors considering risks and technical objective. Includes topics of radiation therapy, nuclear medicine and radiologic pathology. Students must be able to listen and speak well to participate in group discussions. Requires a term paper (SCANS 1,2,3,6,7,9,11) Prerequisite: XRAY 2401 or consent of the department chair. Corequisites: XRAY 2202 and XRAY 2322.

XRAY 2322 Clinical Practicum V
(0-24) ..... 3 hours
While rotating through different work areas student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling them to meet patients' needs. Competencies include: discussion and demonstration of all standard radiographic positions and ability to produce radiographs on trauma patients with direct supervision (pre-competency); indirect supervision (post competency) to include film critique (film evaluation regarding anatomy, positioning and technical factors); reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment and producing standard radiographs on patients with the necessary supervision; ability to prioritize and organize activities necessary to complete examinations; evaluate and correct performance, in the presence of a technologist, following a discussion identifying the problem and solution; completion of necessary paperwork (some on the computer) related to radiographic examinations performed; assisting radiographers in obtaining radiographs on trauma patients; assisting radiologist with fluoroscopic examinations; demonstrating specific exams with a model (performance evaluation). Includes the following in clinical rotations: ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1,4,5,8,11) Prerequisite: XRAY 2321 or consent of department chair. Corequisites: XRAY 2202 and XRAY 2402.

XRAY 2323 Clinical Practicum VI
(4-20) [6 weeks] ..... 3 hours
Includes basic physical concepts with expansion to increase depth and scope of underlying principles of radiology. While rotating through different work areas student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling him to meet patients' needs. Competencies include: performance of all duties required of a registered radiologic technologist to include patient positioning, technique selection, interpersonal communication skills and film critique (film evaluation regarding anatomy, positioning and technical factors); reading, understanding and demonstrating understanding of positioning materials by selecting necessary equipment and producing standard radiographs on patients with the necessary supervision; ability to prioritize and organize activities necessary to complete examinations; completion of necessary paperwork (some on computer) related to radiographic examinations performed; assisting radiologist with fluoroscopic examinations; demonstrating specific exams with a model (performance evaluation). Includes the following in clinical rotations: ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1,2,3,4,5,6,7,8,9,10,11) Prerequisite: XRAY 2322.

Reading

Faculty: Elloui Moseley, chair; Jean McColloch, Pam Williamson.

An effective citizen must read well, and reading courses develop efficient tools for use in both the academic and workplace environment. All professional fields require above-average abilities in reading.

These courses implement multi-media, computerized instruction and support the philosophy that a person's ultimate reading potential is never reached. Because effective study skills predominantly depend on precise reading abilities, learning methods are an integrated element in the curriculum. Time spent in this program is an investment in self. All people, regardless of their reading ability or what kind of grades they make, can improve their reading skills.

Developing awareness of the competencies underlying effective reading and insight into the psychology of reading will be excellent preparation for those interested in reading as an academic major. Reading specialists, reading supervisors and reading clinicians are all in great demand.

Courses listed below do not satisfy requirements as electives for any degree at Odessa College. Students who intend to transfer to another community college, senior college or university should check with that institution to determine whether hours earned in reading will transfer for degree credit.

READ 0371 Basic Reading (READ 1300)
(3-0) ..... 3 hours
Initiates instruction in developmental reading with emphasis on building vocabulary, increasing reading rate, and improving comprehension. Aims to empower students with independent learning techniques and effective study skills to enhance self esteem and reaffirm the belief in self as a successful learner. Includes individual diagnosis of reading strengths and weaknesses for placement in multi-leveled materials. Lab fee required. (SCANS 1,9,10) Prerequisite: None or placement by counselors.

READ 0372 College Reading (READ 1301)
(3-0) ..... 3 hours
Stresses efficient learning techniques and application of reading and study skills. Students are encouraged to establish habits that result in increased success in learning in both the classroom and job environments. Includes diagnosis of reading strengths and weaknesses for placement in computer exercises, timed reading practices and vocabulary study. (SCANS 1,9,10). Lab fee required. Prerequisite: Read 0371 passed with a "C" or better or satisfactory placement score.

READ 0373 Advanced College Reading (READ 1302)
(3-0) ..... 3 hours
Continues independent work to maintain improved critical reasoning skills designed to meet specific needs in comprehension, vocabulary, rate, and study skills. The student monitors and corrects ineffective behavior as he assesses self accurately, sets personal goals, and monitors progress. (SCANS 1,7,9,10) Lab fee required. Prerequisite: Read 0372 passed with a "C" or better or satisfactory placement score.

College Reading Techniques

The College Reading Techniques courses provide an alternative reading program with structured, individualized, self-paced instruction in a multi-media, computerized environment. Regardless of present reading ability, students can expect to increase vocabulary, to gain faster reading rates and to improve comprehension. Effective study techniques offer opportunities to improve performance in both academic and vocational-technical courses.

Diagnostic tests are given to determine placement levels and specific areas of need. Post-tests evaluate progress during the semester. Through student-teacher conferences, a self-paced plan of action is developed to set immediate and long-range goals.

Students should consult with the instructor immediately upon registration to arrange meeting times for flexible entry courses.

READ 0171 Improving Reading Skills (READ 1101)
(0-24) ..... 1 hour
Introduces self-paced individualized instruction in a multi-media environment which is designed to teach the student efficient reading techniques. Students establish habits that result in increased success in learning in both the classroom and job environments, resulting in higher self esteem. Through independent learning activities, the student learns to validate his understanding of reading materials. Student's vocabulary is increased with various written activities. To increase individual reading rate, students utilize computers and other pacing media. (SCANS 1,4,7,10) Lab fee required. Prerequisite: None.

READ 0172 Improving Reading Flexibility (READ 1102)
(0-12) ..... 1 hour
Aims to make student aware of importance of vocabulary and degree of comprehension expected when reading in a variety of materials at a variety of speeds. As the student becomes a more independent learner, he uses new techniques to acquire and apply information to more complex reading material. Lab fee required. (SCANS 1,9,10) Prerequisite: READ 0171.

READ 0173 Improving Reading Rate and Comprehension (READ 1103)
(0-12) ..... 1 hour
Provides opportunity to become a trained, successful reader able to handle large amounts of written materials by emphasizing purpose, concentration, recall, increased vocabulary, and rapid reading. Lab fee required. (SCANS 1,9,10) Prerequisite: READ 0171 or READ 0172.

Refrigeration/Air Conditioning
(see Heating, Ventilation and Air Conditioning)

Religion *(see Philosophy and Religion)*

Respiratory Care

Faculty: Phyllis Brunner, chair; Stan Middleton, Director of Clinical Education; Gloria Hearne, Dr. John Bray, medical director.

Through its ladder concept curriculum in Respiratory Care, Odessa College offers an intensive program for therapists and technicians. The Technician Program requires 14 months of study and leads to a Certificate of Completion. The Therapist Program requires 22 months of study and leads to an Associate in Applied Science Degree.

The clinical practice of respiratory care involves the application of skills and knowledge in the diagnosis and treatment of cardiopulmonary disease. Respiratory therapists and technicians engage in the care of patients from all age groups who suffer from a broad spectrum of diseases. They perform their duties in all patient care areas of hospitals, although primary involvement is in the intensive care units. They staff diagnostic laboratories, provide respiratory services for patients at home and in rehabilitation centers, are involved in the transportation of patients who require respiratory care en route, and serve as managers or educators.

Individuals practicing respiratory care should be mature, responsible persons with strong interpersonal skills and the desire to care for others. Interest and competence in the basic sciences are strong determinants in the academic success of a respiratory therapy student. Respiratory care involves the application of highly technological equipment to patient care situations.

The curriculum balances general educational and technical courses with supervised clinical work in local hospitals under the direction of qualified therapists and technicians. Physicians proficient in pulmonary medicine provide medical direction. This setting provides students with an excellent opportunity for educational development and occupational competence.

Students are admitted prior to the second summer semester on a selected basis because of limited space in the clinical area of study. Requirements for admission are high school graduation or its equivalent, satisfactory achievement on the college entrance examination, evidence of good health, personal interview and approval of the admissions committee for the program.

Students may not receive a grade lower than "C" in any Respiratory Care course and must maintain a "C" average or better in all other courses. Students failing to meet these scholastic requirements will be dropped from the program. All Respiratory Care courses must be taken in the proper sequence as shown in the catalog, and progression to the second year requires successful completion of the Technician Program.

All Respiratory Care students are required to have health and accident insurance. Liability insurance also is required and is a part of the regular college fee schedule.

The Odessa College Respiratory Therapist and Technician Program is accredited by the Council on Medical Education of the American Medical Association through the recommendations of the Joint Review Committee for Respiratory Therapy Education.

Students wishing to apply for admission or seeking additional information should contact the Counseling Center. All persons wishing to apply should submit their applications before June 1 of each year.

Course of Study for Associate in Applied Science Degree

Respiratory Therapy

First Year

Summer Session II

	Semester Hrs
MATH 1332 Structures of College Mathematics or higher level math	3
ENGL 1301 Composition and Rhetoric	3

First Semester

BIOL 2404 Human Anatomy and Physiology	4
SPCH 1321 Business and Professional Speech	3
RESP 1101 Fundamentals of Respiratory Care I Lab	1
RESP 1111 Clinical Practicum I	1
RESP 1300 Fundamentals of Respiratory Care I	3
RESP 1304 Principles of Respiratory Care	3

Second Semester

COSC 1301 Introduction to Computer Systems	3
RESP 1112 Fundamentals of Respiratory Care II Lab	1
RESP 1312 Fundamentals of Respiratory Care II	3
RESP 1222 Clinical Practicum II	2
RESP 1332 Cardiopulmonary Pathophysiology	3
*PHED 1100 Lifestyle Assessment and Modification	1

Summer Sessions I and II

	Semester Hrs
RESP 1140 Respiratory Care Seminar	1
RESP 1360 Critical Care	3
RESP 1333 Clinical Practicum III	3

Second Year

Third Semester

CHEM 1105 Introductory Chemistry Lab	1
CHEM 1305 Introductory Chemistry	3
GOVT 2301 U.S. and Texas Government or	
GOVT 2302 American National Government	3
RESP 2312 Cardiopulmonary Dynamics	3
RESP 2252 Clinical Practicum IV	2
RESP 2364 National/Pediatric Respiratory Care	3

Fourth Semester

BIOL 2420 Microbiology	4
PSYC 2301 Introduction of Psychology	3
RESP 2330 Clinical Specialties	3
RESP 2262 Clinical Practicum V	2
PHED One-hour activity course	1
Elective (must be outside the major area)	**3**

**PHED 1100 should be the first course taken in Physical Education.*

Course of Study for Certificate of Completion

Respiratory Therapy Technician

First Year

Summer Session II

	Semester Hrs
MATH 1332 Structures of College Mathematics or higher level math	3
ENGL 1301 Composition and Rhetoric	3

First Semester

BIOL 2404 Human Anatomy and Physiology	4
SPCH 1321 Business and Professional Speech	3
RESP 1101 Fundamentals of Respiratory Care I Lab	1
RESP 1111 Clinical Practicum I	1
RESP 1300 Fundamentals of Respiratory Care I	3
RESP 1304 Principles of Respiratory Care	3

Second Semester

COSC 1301 Introduction to Computer Systems	3
RESP 1112 Fundamentals of Respiratory Care II Lab	1
RESP 1312 Fundamentals of Respiratory Care II	3
RESP 1222 Clinical Practicum II	2
RESP 1332 Cardiopulmonary Pathophysiology	3
*PHED 1100 Lifestyle Assessment and Modification	1

Summer Sessions I and II

RESP 1140 Respiratory Care Seminar	1
RESP 1360 Critical Care	3
RESP 1333 Clinical Practicum III	3
Total Semester Hours	**41**

**PHED 1100 should be the first course taken in Physical Education.*

Respiratory Care Courses

RESP 1101 Fundamentals of Respiratory Care I Lab
(0-3) ..... 1 hour
Practices techniques and basic calculations learned in RESP 1300. Presents concepts needed in the performance of skills, maintains and selects equipment necessary for technique, charting requirements for medical records. All techniques are performed in the laboratory setting prior to performing them in a clinical setting. (SCANS 2,3,8) Lab fee required. Prerequisite: None. Corequisite: RESP 1300.

RESP 1111 Clinical Practicum I
(0-8) ..... 1 hour
Provides initial exposure to hospital environment. Strengthens communication and decision-making skills by observation and administration of respiratory care modalities. Requires application of patient assessment techniques, utilizing medical terminology documentation, interpretation of medical records, and provides opportunity to apply sterilization techniques. (SCANS 1,2,8,9,11) Equipment fee required. Prerequisite: None. Corequisites: RESP 1101 and RESP 1300.

RESP 1112 Fundamentals of Respiratory Care II Lab
(0-3) ..... 1 hour
Practices skills learned in RT 1312. Introduces mechanical ventilator concepts, including calculations, and airway management techniques. Lab exercises are designed to allow students to select appropriate equipment, problem-solve equipment errors, and communicate the recommended changes in therapeutics in a given problem. (SCANS 3,8,9,11) Lab fee required. Prerequisite: RESP 1101, RESP 1300, RESP 1304 and RESP 1111. Corequisite: RESP 1312 and RESP 1222.

RESP 1140 Respiratory Care Seminar
(1-0)[13 weeks] ..... 1 hour
Introduces most current literature in pulmonary care to help the student understand how social, organizational, and technological systems work together to provide effective standards of care. Requires preparation of journal reports from recent publications. Provides a comprehensive review of competencies for the entry level technician. (SCANS 6,7) Prerequisite: RESP 1312, RESP 1222, RESP 1332, RESP 1112. Corequisite: RESP 1333, RESP 1360.

RESP 1222 Clinical Practicum II
(0-16) ..... 2 hours
Applies, in a clinical setting, skills learned in RESP 1300. Allows a student to participate as a health care team member, including decision making and equipment troubleshooting. Enforces the personal qualities for job success such as understanding workplace ethics, time-management and organizational skills, responsibility, and sociability. Permits rotation through acute care facilities, including pediatrics and rehabilitation centers. (SCANS 4,5,8,9,10) Prerequisite: RESP 1011, RESP 1111, RESP 1300, RESP 1304. Corequisite: RESP 1312, RESP 1332, and RESP 1112.

RESP 1300 Fundamentals of Respiratory Care I
(3-0) ..... 3 hours
An in-depth presentation of oxygen therapy. Presents the technology, calculations, and equipment associated with respiratory care modalities such as aerosol therapy, incentive spirometry, IPPB, arterial blood gas sampling, and chest physiotherapy. (SCANS 3,8) Prerequisite: Admission to Respiratory Care Program. Corequisite: RESP 1101.

RESP 1304 Principles of Respiratory Care
(3-0) ..... 3 hours
Introduces sciences used in respiratory care. Presents chemistry and its application in acid base balance. Presents physics to ensure the student's ability to solve problems and apply new skills in relation to Newton's laws, gas laws, and measurement systems. Introduces microbiology for the student to be able to understand the technology involved in identifying bacteria and other disease-causing organisms. (SCANS 7,9) Prerequisite: Admission to Respiratory Care Program. Corequisite: RESP 1101, RESP 1111 and RESP 1300.

RESP 1312 Fundamentals of Respiratory Care II
(3-0) ..... 3 hours
Presents an extensive study of calculations involved in pharmacology. Introduces the theory, equipment and formulas necessary for the application of positive pressure technology and airway management. (SCANS 3,8) Prerequisite: RESP 1300. Corequisite: RESP 1112, RESP 1222 and RESP 1332.

RESP 1332 Cardiopulmonary Pathophysiology
(3-0) ..... 3 hours
Integrates normal and abnormal physiology of the cardiopulmonary system and requires the student to select appropriate technology to manage the disorders that affect the cardiopulmonary system. Includes the calculations of oxygen transport, the evaluation of gas exchange, electrophysiology of the heart, and the interpretation of blood gas analysis and pulmonary function studies. (SCANS 1,3,6,8) Prerequisites: RESP 1101, RESP 1111, RESP 1300, RESP 1304. Corequisite: RESP 1112, RESP 1222, RESP 1312.

RESP 1333 Clinical Practicum III
(0-30)(13 weeks) ..... 3 hours
Applies, to patients, the techniques learned in RESP 1312. The student will demonstrate the ability to locate and interpret medical information necessary to serve the patient with the appropriate procedures. The student will develop time-management skills and participate as a member of the health care team in the presence of diversity. Assignments in the adult and pediatric intensive care units, as well as general respiratory care areas, will allow the student to demonstrate responsibility, creative thinking and decision-making skills necessary for a respiratory practitioner. (SCANS 4,5,8,9,11) Prerequisites: RESP 1222. Corequisite: RESP 1140 and RESP 1360. Testing fee of $25.00 is required.

RESP 1360 Critical Care
(3-0) ..... 3 hours
Introduces third generation ventilator technology. Emphasizes clinical application, including calculations, of new modes of ventilation such as EMMV, pressure support, pressure control, and inspiratory assist. Presents clinical application and interpretation of compliance curves in relation to positive pressure application and hemodynamic monitoring. (SCANS 1,3,6) Prerequisite: RESP 1112, RESP 1312, RESP 1222, RESP 1332. Corequisite: RESP 1140, RESP 1333.

RESP 2330 Clinical Specialties
(3-0) ..... 3 hours
This course will introduce students to other areas of medicine that are commonly encountered in clinical practice. Emphasis is placed on selection, application, maintenance, and monitoring the needed technology, increasing decision making and problem solving ability, to care for disorders of the critical and acute care patient. (SCANS 7,8,9) Prerequisites: RESP 1140, RESP 1333 and RESP 1360.

RESP 2252 Clinical Practicum IV
(0-16) ..... 2 hours
Allows the student to participate as a health care team member in the application of tasks to the patient in a variety of clinical settings. The student must evaluate and organize patient information, understand how to monitor and correct performance, and select, maintain and troubleshoot necessary equipment in the health care environment. Also, the student will demonstrate ability in decision making, self-management, and teaching others through development of an educational presentation. (SCANS 5,6,7,8,9,10,11) Prerequisite: RESP 1333. Corequisites: RESP 2312 and RESP 2364.

RESP 2262 Clinical Practicum V
(0-16) ..... 2 hours
Integrates all previously learned skills. Requires the student to apply patient care in the adult, pediatric, and neonatal intensive care units, home care and pulmonary rehabilitation facilities. Students will simulate roles in management and education, including development of work schedules, an inventory, and a budget. The student will demonstrate the ability to organize information and understand technology, and the use of reasoning to teach others a new skill and to monitor and correct performances of others. (SCANS 4,5,6,7,8,9) Testing fee of $60 required. Prerequisites: RESP 2252, RESP 2312 and RESP 2364. Corequisite: RESP 2330.

RESP 2312 Cardiopulmonary Dynamics
(3-0) ..... 3 hours
Presents advanced concepts, including interpretation of electrocardiography and hemodynamic monitoring information and the calculations associated with this technology. The student must demonstrate the understanding of the equipment and systems to monitor patient responses, correct malfunctions and suggest modifications or alternatives when necessary. (SCANS 1,3,7) Prerequisites: RESP 1140, RESP 1333, RESP 1360. Corequisites: RESP 2252 and RESP 2364.

RESP 2364 Neonatal/Pediatric Respiratory Care
(3-0) ..... 3 hours
This course will introduce the student to neonatal and pediatric respiratory care. Topics to be covered include embryology, neonatal and pediatric abnormalities, and diseases specific to the neonatal and pediatric population. Information to understand the systems associated in mechanical ventilator technology and calculations to apply positive pressure will be emphasized. (SCANS 3,6,7) Prerequisites: RESP 1140, RESP 1333 and RESP 1360. Corequisites: RESP 2252, RESP 2312.

Social Sciences

Faculty: Dr. Dick Kennedy, chair; Mary Kay Buinger, Dr. Brian Dille, Daphne Eastman, Dr. Tom Heiting, Truett Hilliard, Jack Kitzmiller, Robert Porter, Dr. Helen Reinhart (ret.), Bill Rutherford, Dr. Bob Sturges.

Social sciences deal with the three basic relationships that mankind has dealt with since time began. These relationships involve man with his fellow man (history, economics, government, psychology and sociology), man with God (religion) and man with himself (philosophy). No one can challenge the effect that philosophers, historical events, political and social theories, economic ideas and religious concepts have had on mankind.

The four-semester curricula outlined below lead to an Associate in Arts Degree in economics, government and history. Courses are offered in philosophy and religion, but they should be taken as electives only. Students desiring to major in philosophy or religion should consult with the senior college or upper-level institution to which they will transfer regarding transferability of courses.

The Social Sciences Department also offers honors courses in both government and history. These classes, which have limited enrollment, provide an innovative and non-traditional learning experience for students who qualify. Contact the department chair or the Director of Honors for more information.

The social sciences provide students with analytical tools needed for effective participation in a democratic society; they also open doors to various career opportunities. A background in the social sciences is particularly suitable to government employment (such as in the Social Security Administration), social welfare employment, the Federal Reserve banks and other types of government jobs. The social sciences also provide a background that is useful for a career in business, teaching and other professions.

Course of Study for Associate in Arts Degree

Economics, Government and History Options

	Semester Hrs
General Education Requirements	**52**
**General Education Elective	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
***HIST 1301 U.S. History to 1877	3
***HIST 1302 U.S. History from 1877	3
Foreign Language	14
MATH 1332 Structures of College Mathematics I or higher level math	3
MATH 1333 Structures of College Mathematics II or higher level math	3
*PHED (Any two one-hour activity courses)	2
SPCH 1311 Introduction to Speech Communication	3
Elective (must be outside the major area)	**3**
Major Requirements	**12**
ECON 2301 Principles of Economics I (Macro)	3
ECON 2302 Principles of Economics II(Micro)	3
HIST 2311 History of Modern Europe to 1815	3
HIST 2312 History of Modern Europe since 1815	3
Total Semester Hours	**67**

***Approved Electives: HIST 2303, HIST 2304, PSYC 2319, SOCI 2319 and SOCI 2326.*
****HIST 2301, History of Texas may be substituted for either HIST 1301 or HIST 1302.*
**PHED 1100 should be the first course taken in Physical Education.*

Economics Courses

ECON 1301 Introduction to Economics (ECO 1301)
(3-0) ..... 3 hours
Permits average citizen to increase economic literacy. Includes organization and interpretation of economic resources, basic economic decisions, price system, role of money and banking, problems of inflation and employment and other personal and public economic issues. Recommended for management majors and others who want a general knowledge of economics. Does not replace ECON 2301 and/or ECON 2302. (SCANS 6) Prerequisite: None.

ECON 2301 Principles of Economics I (Macro) (ECO 2302)
(3-0) ..... 3 hours
Provides organization, communication, and interpretation of fundamental, analytic concepts of economic theory and practice. Emphasizes macroeconomic theory and practice. Includes money and banking, national income and employment, economic growth, public spending and international economy. (SCANS 6) Prerequisite: None.

ECON 2302 Principles of Economics II (Micro) (ECO 2301)
(3-0) ..... 3 hours
Designed to provide communication and interpretation of fundamental analytic concepts of economic theory and practice. Emphasizes micro-economic theory and problem solving. Includes basic theory, price and output determination under varying conditions and income distributions and factor prices. (SCANS 6,9) Prerequisite: None.

Government Courses

GOVT 2301 U.S. and Texas Government (GOVT 2301)
(3-0) ..... 3 hours
Traces and interprets the development of American political thought, the origins and development of the U.S. Constitution, federalism, public opinion and the political processes of American democracy. Includes the Texas Constitution, governor, state legislature, court system, bureaucracy, state politics and local government. This course satisfies the government requirement for teacher certification by the Texas Educational Agency. (SCANS 6) Prerequisite: None.

GOVT 2302 American National Government (GOVT 2302)
(3-0) ..... 3 hours
Disseminates information and interprets the institution of government including the presidency, congress, the courts and bureaucracy of the U.S. Government. Includes study of domestic and foreign policy issues such as managing the economy, national defense, welfare, civil liberties and civil rights. this course does not satisfy the government requirement for teacher certification by the Texas Education Agency. (SCANS 6. Prerequisite: None.

History Courses

HIST 1301 United States History to 1877 (HIST 2301)
(3-0) ..... 3 hours
Organizes, interprets, and evaluates the European background, establishment of colonial foundations, rise of American nationality, growth and sectional crisis, and the Civil War and Reconstruction. (SCANS 6,9) Prerequisite: None.

HIST 1302 United States History from 1877 (HIST 2302)
(3-0) ..... 3 hours
Deals with the growth of big businesses and accompanying problems. Includes the interpretation and evaluation of American imperialism, causes and results of World War I, causes of World War II, post-war adjustments and prospective solutions. (SCANS 6,9) Prerequisite: None.

HIST 2301 History of Texas (HIST 2303)
(3-0) ..... 3 hours
Organizes and interprets the history of Texas. Stresses European approach to Texas, Spanish and French rivalry, exploration and control, Anglo-American colonization, relations with Mexico, Texas Revolution, Texas as a republic, annexation, statehood, reconstruction and other political and economic developments. (SCANS 6,9) Prerequisite: None.

HIST 2311 History of Modern Europe to 1815 (HIST 1301)
(3-0) ..... 3 hours
Surveys and interprets the social, economic and political developments in Medieval and Modern Europe. Emphasizes the Renaissance, Protestant Reformation, overseas expansion during 16th and 17th centuries, struggle for parliamentary government in England, French Revolution and Napoleonic period. (SCANS 6) Prerequisite: None.

HIST 2312 History of Modern Europe Since 1815 (HIST 1302)
(3-0) ..... 3 hours
Includes an interpretation and evaluation of the Napoleonic era, rise of liberalism and nationalism, causes and results of World War II, post-war problems and prospective solutions. (SCANS 6,9) Prerequisite: None.

HIST 2381 Afro-American History (HIST 2304)
(3-0) ..... 3 hours
Organizes and interprets the role and contributions of Afro-Americans to development and culture of the United States. (SCANS 6) Prerequisite: None.

Philosophy and Religion Courses

PHIL 1301 Introduction to Philosophy I (PHIL 2301)
(3-0) ..... 3 hours
Presents an adventure in ideas including the interpretation of those ideas. Asks anew ultimate questions about the significance of life. With insights gleaned from world's greatest philosophers, students seek to clarify own ideas and beliefs concerning themselves, their world and their ultimate destiny. Critical thinking is an important component of this course. (SCANS 6,9) Prerequisite: None.

PHIL 1304 Comparative Religions (RELG 1303)
(3-0) ..... 3 hours
An interpretation of religions of the world. Includes Hinduism, Buddhism, Confucianism, Taoism, Shinto, Judaism, Christianity, and Islam. (SCANS 6) Prerequisite: None.

PHIL 1316 History of Religion (RELG 1302)
(3-0) ..... 3 hours
Investigates and interprets historically the development of the world from prehistory to modern times. Emphasizes role of religions in world history. Prerequisite: None.

PHIL 2306 Introduction to Philosophy II (Ethics) (PHIL 2302)
(3-0) ..... 3 hours
Introduces ethical theories based on answers given by the world's greatest philosophers to the questions, "What makes acts right?" and "What is the good life?" Discusses and interprets the nature of goodness, duty and freedom. Considers selected ethical problems in light of each basic ethical system. (SCANS 6,9) Prerequisite: None.

PHIL 2321 Philosophy of Religion (RELG 1301)
(3-0) ..... 3 hours
Examines and interprets the nature and meaning of religion and religious expression. Emphasizes development of religious thinking in western civilization. Includes faith and reason, religion's authority, science and religion, problems and implications of freedom, evil and conscience. (SCANS 6) Prerequisite: None.

BIBL 1171 Acts of the Apostles (BIB 1101)
(1-0) ..... 1 hour
Communicates and interprets expansion of Christian beliefs, practices and fellowships from Palestine to outlying parts of the Roman Empire. Includes personality study of Peter, John, Paul and other apostles. (SCANS 6) Prerequisite: None.

BIBL 1372 Old Testament History (BIB 1301)
(3-0) ..... 3 hours
An introduction and survey of the Old Testament. Emphasizes historical setting, types of religious literature and religious element underlying the whole. (SCANS 6) Prerequisite: None.

BIBL 1373 New Testament History (BIB 1302)
(3-0) ..... 3 hours
Introduces survey of the New Testament. Emphasizes life and teachings of Jesus as found in the Gospels, expansion of early Christianity, a brief study of Paul's epistles, the general epistles and Revelation. (SCANS 6) Prerequisite: None.

BIBL 2371 History of the Life of Christ (BIB 2301)
(3-0) ..... 3 hours
Presents a study of the life of Christ as portrayed by Matthew, Mark, Luke and John. (SCANS 6) Prerequisite: None.

BIBL 2372 The Life and Letters of Paul (BIB 2302)
(3-0) ..... 3 hours
Consists of a study of the life and ministry of the apostle Paul. Examines his writings and central ideas. (SCANS 6) Prerequisite: None.

Sociology *(see Psychology and Sociology)*

Spanish *(see English and Foreign Languages)*

Speech

Faculty: Darlyne Ervin, chair; Joe Willis, Wallace Jackson (ret.)

The Speech Department recognizes that effective communication is an essential skill in college, industry and daily life. Students must be able to logically organize their ideas, adapt those ideas to their specific audience or situation and then express those ideas or feelings in a clear, confident manner. These skills, once learned, will aid students throughout their private and professional lives.

All speech courses have unique, diverse functions; therefore, each presents individual goals. However, the shared goal of these classes is to help students develop a more articulate, sensitive and confident self image in the area of oral communication.

Business and Professional Speech and Public Speaking are course offerings considered to be "core" classes because they help fulfill the communication requirements at most colleges and universities.

Speech courses need not be taken in any particular sequence. More than one speech course may be taken during a given semester.

Course of Study for Associate in Arts Degree

Speech

	Semester Hrs
General Education Requirements	**42**
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (Sophomore Level)	6
HIST 1301 U.S. History to 1877	3
HIST 1302 U.S. History from 1877	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
Science (Two sequential semesters of a laboratory science)	8
A Foreign Language 1411 and 1412	8
*PHED (Any two one-hour activity courses)	2
Elective (must be outside the major area)	**3**
Major Requirements	**19**
SPCH 1315 Public Speaking	3
**SPCH 1144, 1145, 2144 and 2145: Forensic Laboratory	4
SPCH 2341 Introduction to Oral Interpretation	3
SPCH 2335 Argumentation and Debate	3
SPCH 1342 Voice and Diction	3
COMM 1335 Survey of Radio and Television	3
Total Semester Hours	**64**

**PHED 1100 should be the first course taken in Physical Education.*
*** This laboratory prepares students for intercollegiate participation in various speech contests. Requires tournament participation for credit to be earned. Prerequisite: None.*

Speech Courses

SPCH 0300 Basic Speech Communication Skills (SPCH 1300)
(3-0) ..... 3 hours
This course is a preparatory course in speech communication. Emphasis is placed on interpersonal and small group communication, critical thinking, and individual communication skills. This course is developmental in nature and may not satisfy requirements toward a four-year degree. (SCANS 5,9,10,11) Prerequisite: None.

SPCH 1144, 1145, 2144, 2145 Forensics Laboratory (SPCH 1131,1132, 2131, 2132)
(0-2) ..... 1 hour each
This lab prepares the students for intercollegiate participation in various public speaking events. This course requires tournament participation. (SCANS 5,9,10,11 met in different ways depending on the student's individual events) Prerequisite: None.

SPCH 1311 Introduction to Speech Communication (SPCH 1310)
(3-0) ..... 3 hours
This course introduces the oral communication process through study of interpersonal skills. The course applies practices of communication in dyadic and group environments Variables of nonverbal communication, self-esteem, listening techniques, presentational speaking and cultural diversities are examined. (SCANS 5,10,11) Prerequisite: None.

SPCH 1315 Public Speaking (SPCH 1320)
(3-0) ..... 3 hours
In this course the student learns to apply oral communication skills toward a specified audience. Organization of ideas, the persuasion process, and audience analysis are components of the course objectives. The student will demonstrate these objectives through prepared messages using appropriate verbal and nonverbal techniques. (SCANS 5,6,9,10,11) Prerequisite: None.

SPCH 1321 Business and Professional Speech (SPCH 2340)
(3-0) .....3 hours
In this course students improve written and oral communication skills which affect business environments. Emphasis is placed on organizational networks, strategic planning, interviewing, presentational address, listening, and committee effect. The student will integrate these components with managerial methods and business image maintenance. Variables of culture and personality are analyzed. This course utilizes a "hands on" approach to application of the course materials. (SCANS 5,6,7,9,10,11) Prerequisite: None.

SPCH 1342 Voice and Diction (SPCH 2360)
(3-0) .....3 hours
This course presents the principles of the vocal process. The student's individual goals of vocal development and interpretation are targeted through classroom exercises and projects. The student will master the International Phonetic Alphabet. (SCANS 1,6,9,11) Prerequisite: None.

SPCH 2335 Argumentation and Debate (SPCH 2330)
(3-0) .....3 hours
This course introduces various argumentation techniques. The student will learn basic research skills and methods of cataloging evidence. The student will learn to organize and present ideas in effective communication paradigms. Individual debate and team formats will be demonstrated. (SCANS 5,6,9,10,11) Prerequisite: None.

SPCH 2341 Introduction to Oral Interpretation (SPCH 2320)
(3-0) .....3 hours
This course focuses on analysis and performance of written literature. The reader's evaluation of the literature and personal creativity are utilized toward a targeted objective for a specific audience. (SCANS 1,6,9,10,11) Prerequisite: None.

Surgical Technology

Faculty: Leola Rutledge, chair.

The Surgical Technology Program prepares graduates to function in the operating room as surgical technologists under the direction of an operating room registered nurse. Duties include maintaining a safe environment for patients undergoing surgery, transporting patients, preparing supplies, operating equipment, handling instruments and serving as a member of the surgical team.

The first semester courses include medical terminology, asepsis, microbiology, pharmacology, sterilization/disinfection and an introduction to clinical experience. Anatomy and physiology and interpersonal relationships also are introduced. During the second semester, first aid is presented, anatomy and physiology are continued, and the practicum and didactic instruction are expanded to include wound healing, anesthesia and surgical procedures. Opportunity also is given in the practicum to increase knowledge and skills in general surgical procedures. The six-week summer session allows students to perfect skills under supervision in the clinical sites.

Admission requirements to the program include submission of a completed Odessa College application, program application, high school graduation or its equivalent (GED) and evidence of good health. Also, prospective students must make a satisfactory score on the Allied Health Aptitude Test. Upon completion of the above, students must make arrangements for an interview with the program director.

Students may be required to take some college placement tests. Unsatisfactory scores on these placement or entrance tests may require that additional courses be taken concurrently with, or prior to, the regular curriculum.

All courses — including the academic courses — in the curriculum are required and must be completed no later than the prescribed semester with a minimum grade of "C." Progression to the next semester cannot be accomplished if a grade of "D" or "F" is received in any course.

All Surgical Technology students are required to have health and accident insurance. Liability insurance also is required and is a part of the regular college fee schedule.

Students who successfully complete the program receive a Certificate of Technology and may sit for the National Certification Examination for Surgical Technologists. Those interested in furthering their education may take the courses for an Associate in Applied Science Degree.

The Odessa College Surgical Technology Program is accredited by the Committee on Allied Health Education and Accreditation with recommendations of the Accreditation Review Committee on Education for the Surgical Technologist.

Course of Study for Associate in Applied Science Degree

Surgical Technology

First Year

	Semester Hrs
First Semester	
BIOL 1170 Medical Terminology	1
BIOL 2401 Anatomy and Physiology I	4
PSYC 2302 Applied Psychology	3
SURG 1612 Introduction to Surgical Techniques	6
SURG 1411 Surgical Technology Practicum I	4
Second Semester	
BIOL 2402 Anatomy and Physiology II	4
PHED 1306 First Aid	3
SURG 1613 Principles of Surgical Technology	6
SURG 1614 Surgical Technology Practicum II	6
Summer Session I	
SURG 1515 Surgical Technology Practicum III	5

Second Year

First Semester	
BIOL 2420 Microbiology	4
ENGL 1301 Composition and Rhetoric	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
MATH 1332 Structures of College Mathematics or higher level math	3
*PHED 1100 Lifestyle Assessment and Modification	1
Elective	**3**
Second Semester	
COSC 1301 Introduction to Computer Systems	3
ENGL 1302 Composition and Literature	3
PHED One-hour activity course	1
PSYC 2301 Introduction to Psychology	3
SPCH 1321 Business and Professional Speech	3

**PHED 1100 should be the first course taken in physical education.*

Course of Study for Certificate of Completion

Surgical Technology

First Semester

	Semester Hrs
BIOL 1170 Medical Terminology	1
BIOL 2401 Anatomy and Physiology I	4
PSYC 2302 Applied Psychology	3
SURG 1612 Introduction to Surgical Techniques	6
SURG 1411 Surgical Technology Practicum I	4

Second Semester

BIOL 2402 Anatomy and Physiology II	4
PHED 1306 First Aid	3
SURG 1613 Principles of Surgical Technology	6
SURG 1614 Surgical Technology Practicum II	6

Summer Session I

SURG 1515 Surgical Technology Practicum III	5

Surgical Technology Courses

SURG 1411 Surgical Technology Practicum I (ST 1411)
(0-14) ..... 4 hours
Presents techniques needed to begin a study of the technologies in the operating room including emphasis on maintaining a safe environment for the patient, care and handling of instrumentation, competence in basic calculations and related nursing activities. Stresses skills in locating, understanding and interpreting written information related to the operating room environment and routines. Activities for skills in basic aseptic technique, following schedules and using materials and equipment efficiently are presented. Stresses workplace competencies including interpersonal relationships, team building, self-esteem and acquisition and evaluation of information. Simulation lab and on-site clinicals enhance and reinforce learned skills. Lab fee required. (SCANS 3,4,5,6) Prerequisite: None; Corequisite: SURG 1612.

SURG 1612 Introduction to Surgical Techniques (ST 1611)
(6-2) ..... 6 hours
Presents terminology, concepts and techniques needed to begin a study of Surgical Technology. Covers weights and measures, pharmacology, patient care including medical-legal aspects and ethics, microbiology, infection, sterilization and disinfection. Students will use basic numerical techniques for calculations in pharmacology. Stresses working with others of diverse backgrounds in peer relationships as well as care-giver relationships with clients. Covers written information dealing with clients. Emphasis placed on recognizing problems relating to patient care and planning actions. Applies knowledge and skills to the clinical process. (SCANS 1,3,5,9,10) Prerequisite: None; Corequisite: SURG 1411.

SURG 1613 Principles of Surgical Technology (ST 1601)
(6-2) ..... 6 hours
Presents operating room principles and techniques, through interpretation of written information. Emphasis is on acquiring, evaluating and interpreting information regarding patient care related to preoperative diagnoses and surgical intervention. Covers surgical procedures for each body system and emphasizes the equipment and setup for the basic technologies. (SCANS 1,6,8) Prerequisites: SURG 1411 and SURG 1612. Corequisite: SURG 1614.

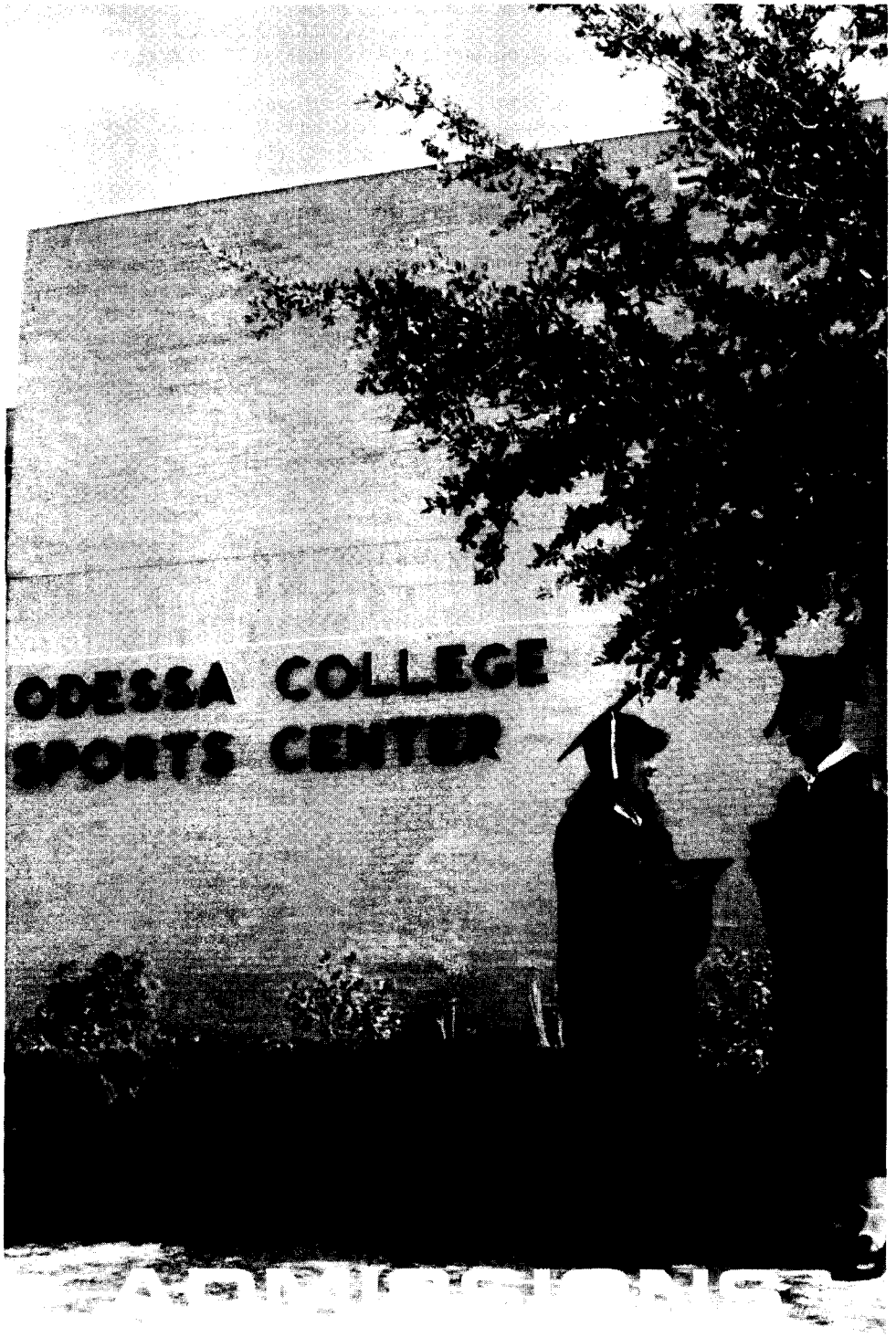
SURG 1614 Surgical Technology Practicum II (ST 1602)
(0-21) ..... 6 hours
Assignments in the Operating Room environment stressing participation as a viable member of the team. Emphasis on prioritization of general surgical technique activities and use of materials. Student will understand overall intent of surgical procedures and choose equipment and supplies related to these tasks. Increase in responsibility for self-management and problem solving. (SCANS 4,5,6,8,10) Prerequisites: SURG 1411, SURG 1612; Corequisite: SURG 1613.

SURG 1515 Surgical Technology Practicum III (ST 1503)
(0-32) ..... 5 hours
Presents extended clinical experience with rotations through surgical specialties with the student having the opportunity to contribute to a group effort to provide optimal care of clients. Emphasis is on working with a variety of tools and equipment. Students are urged to acquire and apply new knowledge and skills as well as persevere toward higher goals. (SCANS 5,8,9,10) Prerequisites: SURG 1411, SURG 1612, SURG 1613, SURG 1614 and completion of all academic courses.

Vocational Nursing *(see Nursing)*

Welding Technology *(see Metal Trades)*

X-Ray Technology *(see Radiologic Technology)*


ODESSA COLLEGE
SPORTS CENTER

Admissions Policies

Welcoming all adults who want to learn, Odessa College has an open-door admissions policy. Whether high school graduates or not, all adults interested in learning can be admitted to Odessa College.

A Counseling Center is available to all students. Counselors discuss career and educational goals with students so that an educational plan can be drawn for each individual. The Testing Center also makes available various types of tests to help students determine their aptitudes, interests, scholastic strengths and weaknesses and other information helpful to a student making a career decision.

As a community college, Odessa College has students of all ages, from recent high school graduates to senior citizens. Many students are employed as they pursue their education.

The college welcomes all students and intends to provide educational services to students of all ages and educational needs. Each student is important and each student finds his or her place at Odessa College.

Procedure

Students applying for admission should have their academic records sent to the Director of Admissions at Odessa College as soon as possible and should complete an application for admission. Students whose records are incomplete at the time of registration may be admitted to Odessa College, although some records must be furnished prior to registration. All necessary records must be furnished before a transcript from Odessa College can be obtained.

Students may be admitted to Odessa College by the following methods:

- **By High School Graduation:** Graduates of accredited high schools satisfy minimum requirements for admission. These students must submit official copies of their high school transcripts which show the date of their graduation.
- **Through the Early Admission Program:** When high school seniors are within four units or 12 quarter credits of graduation from high school, they may enroll in a maximum of two courses per semester at Odessa College. Early admission students must submit the prescribed documentation signed by a parent or guardian, their high school counselor and the high school principal. These forms are obtained from the high school counselor.
- **By Concurrent Enrollment:** High school students may earn credit for a high school course and college credit for enrollment in a college course. For example, a high school student might enroll in an approved history course at Odessa College, attend only the college history course and be granted credit at both the high school and the college levels. To participate in the program, high school students must have the approval of their principal and must have or exceed an overall grade point average of 3.0 in the semester immediately preceding enrollment in a college course, or have scored at or above the 90th percentile on the achievement subtest in the content area for which the students wish to enroll. Any high school student wishing to participate in the concurrent enrollment program must apply to his or her high school counselor who will determine the student's eligibility for the program and the course load.
- **By Individual Approval:** All persons who are at least 18 years of age and whose class has graduated from high school may be admitted to Odessa College if it is determined that those individuals can benefit from study at this institution. Normally, persons admitted on individual approval will be asked to take basic skills tests before registering for classes in order to ensure that they are placed in the proper classes.
- **By Written Examination:** Persons who have not graduated from high school may be admitted if they have passed the General Educational Development Test (GED), if they are 17 years of age, if they have not attended high school for one or more semesters and if they do not plan to return to high school. Proof that the GED has been passed must be submitted.
- **By Re-entry:** Former students in good standing who have not attended another college since enrolling at Odessa College are eligible for readmission.
- **By Transfer from Another College:** Persons transferring from another accredited college or university are ordinarily eligible for admission if they are eligible for readmission to the institution from which they are transferring. Scholastic deficiencies of transfer students will be reviewed by the director of admissions who will determine their eligibility. Transfer students must submit an official copy of their college or university transcripts as a final condition for admission. If possible, that record should be submitted prior to registration. Transfer students who are admitted to Odessa College but who do not submit prior educational records will be denied certified copies of their Odessa College transcripts. Transfer students must provide documentation of their TASP status prior to registration.

High school students preparing to continue their education at Texas post-secondary institutions are strongly encouraged to prepare themselves for advanced study in both academic and technical fields.

The Texas Higher Education Coordinating Board recommends the following minimums for students in the "college preparation" path:

A. Core Proficiencies: All Students should complete:

1. English Language Arts: English I-IV (four years)
2. Mathematics: Algebra I and Geometry
3. Science: Two of the following: Physical Science, Biology I and II, Chemistry I and II, Physics I and II
4. Social Science: US History, World History, World Geography, Economics, and US Government
5. Foreign Languages: Proficiency in a second language
6. Health: One half unit
7. Fine Arts: One half unit
8. Physical Education: One and one half units
9. Computer Skills: One unit

B. Specialization Proficiencies: In addition to the above recommended minimums, students should complete the following specialization:

1. Mathematics: Additional proficiencies which will apply toward their intended major area of study. These may include Algebra II, Precalculus, or other mathematics skills courses.
2. Science: Additional proficiencies in Biology, Chemistry, and Physics as indicated by the particular college courses of study.
3. Additional: **Students working toward a baccalaureate degree** should take additional courses in fine arts and electives which meet graduation requirements.

Students working toward a two-year technical degree should take a coherent sequences of courses through a tech-prep or 2+2 program. See your high school counselor for details.

Students planning on immediate full-time employment should take a coherent sequence of courses in vocational education, applied technology and electives. See your high school counselor for details.

International Student Admissions

International students (F-1 visa) must meet all regular admissions criteria. In addition, they must take and score at least 575 on the Test of English as a Foreign Language (TOEFL). Scores between 500 and 575 will be considered on an individual basis if the applicant has U.S. sponsorship acceptable to Odessa College. A financial statement is also required. International students enrolling at Odessa College will need a minimum of $8,000 for a calendar year for educational and living expenses, in addition to funds for transportation. International students must make a $5,000 (U.S.) cash deposit with the college or present evidence of adequate medical insurance; they must also make a cash deposit (U.S.) for the amount of one-way airplane transportation to the home country. Deposits are refundable when an international student is no longer enrolled at Odessa College.

All required documents and information must be received in accordance with the following dates if international students expect their application to be processed for the semester indicated:

Summer School ..... March 3
Fall Semester ..... June 1
Spring Semester ..... October 15

Academic records for international students must be official and must be translated into English. Copies will not be accepted. International students wishing to transfer to Odessa College from another U.S. college or university must also present official transcripts of all U.S. college work along with recommendations from the foreign student advisor from the school previously attended.

All applications from international students must be accompanied by a $20 application fee. Persons wanting additional information on international student admissions should write to:

International Student Admissions
Odessa College
201 West University
Odessa, TX 79764

Orientation Requirement

ORIE 1100, Orientation, is a course designed to assist the student who is enrolled in college for the first time in gaining the knowledge necessary to function effectively in a college environment. It covers the policies, rules and regulations of Odessa College, as well as study skills and the state-mandated TASP testing requirements. The student will become acquainted with the college catalog, the Student Handbook and the campus.

At the first class meeting, the student will meet with the instructor for two hours and then will complete the course through self-paced activities and an exam over the material covered in the course.

One hour of credit is awarded for the class.

All students who have never attended college before are required to enroll in ORIE 1100 during their first semester of attendance at Odessa College.

Texas Academic Skills Program (TASP) Testing Requirement

The Texas State Education Code requires that all students "who enter public institutions of higher education in the fall of 1989 and thereafter must be tested for reading, writing and mathematics skills." This includes all "full-time and part-time freshmen enrolled in a certificate or degree program," any non-degree students prior to the "accumulation of nine or more [college] credit hours or the equivalent," and "any transfer students with fewer than 60 semester credit hours or the equivalent who have not previously taken the tests."

Performance on the test will not be used as a condition of admission. The test fee will be paid by the student. Test fee waiver vouchers are available from the Financial Aid Office for students who qualify as economically disadvantaged. If the student does not take the TASP test before the accumulation of nine college-level credits, he or she will only be allowed to take remedial courses until the TASP test is taken.

If a student has failed one or more portions of the TASP test, Texas state law requires a student to be enrolled in some form of remediation continuously until he or she passes all portions of the test. Furthermore, state law requires that the student who is enrolled in remediation as a result of a TASP failure must satisfactorily participate in that remedial program. Odessa College defines the student's satisfactory participation in remediation as consistent attendance coupled with continuous progress through the content of the remedial program.

The following policies apply to any student placed in a remedial program as a result of his or her failing a portion of the TASP test:

1. In a three-hour credit course, if the student is absent for six (6) or more consecutive hours of the course's scheduled instruction, he or she is subject to complete withdrawal from the college. If the student is absent for a total of nine (9) hours of instruction throughout the course, he or she is subject to complete withdrawal from the college.
2. In a flexible-entry remedial course or program, if the student fails to meet with the instructor within one (1) week following registration or fails to meet with the instructor at least once every two (2) weeks thereafter, he or she is subject to complete withdrawal from the college.

Immunizations

Nursing and allied health students: Students enrolled in health related courses (student health care providers) that involve direct patient contact in medical care facilities, regardless of number of courses taken, must produce evidence of: a) one dose of tetanus/diphtheria within the past 10 years; b) rubella immunity; c) hepatitis B/ bloodborne pathogen requirements as specified by each department.

Polio: Polio vaccine is not required for students to attend Odessa College but may be required at certain health facilities where students may have clinical training.

Provisional enrollment: All new and transfer students referred to above may be provisionally enrolled for up to one semester or quarter. The provisional enrollment will allow students to attend classes while obtaining the required vaccinations and documentation (immunization records) of required vaccinations. **Student health care providers cannot be provisionally enrolled without receipt of at least one dose of MMR vaccine, if direct patient contact will occur during provisional enrollment period.**

Early Registration

Early registration for a semester allows students, with the help of college counselors and faculty members, to select proper courses and to complete all registration prior to regular registration. Schedule changes may be made during official registration dates for that semester.

Students who register early have the option of paying fees at the time of early registration or by a specified later date. Students who do not pay or secure financial aid assistance by the deadline date will automatically lose those classes chosen during early registration and will have to repeat the course selection process during the regular registration period.

Early registration begins from one to two months prior to regular registration. Exact information can be secured from the Counseling Center, the News and Information Office or the Registrar's Office. Students who register early have the advantage of selecting courses, instructors and times which best suit their needs.

Auditing

The following apply to persons seeking permission to audit:

1. **A student may not register for an audit until after the first class day.**
2. Audit permission must be obtained from the appropriate department chair and the Registrar's Office..
3. There must be seats available before an auditing student will be permitted to enter a particular class.
4. Auditing students are not required to meet course prerequisites listed in the catalog.
5. Students auditing a course may not under any circumstances claim credit for the course.
6. A student registering for a course may not change from audit to credit or from credit to audit after the 12th class day during a long semester or fourth class day during a summer term. Requests for status change must be made in the Registrar's Office.
7. Charges for auditing a course are the same as for regular registration.

Class Membership

The only way to become an official member of a class at Odessa College is by following established procedures for registering and by paying tuition and fees. No person is officially enrolled until all registration requirements have been satisfied and all charges have been paid in full. Installment payment of tuition and fees is not permitted.

Change of Address

Students who change residence following registration must notify the Registrar's Office immediately. Students are held responsible for any communications mailed to them from the college to the last address which they supplied. Moving from a previous address does not relieve students of the responsibility of requests made through correspondence.

Equal Opportunity

Odessa College is committed to the basic right of all people to have an equal opportunity for education or employment at this institution. Every effort will be made by the Board of Trustees, the administration and the faculty to defend this right and to vigorously seek to promote its implementation in all areas of the institution.

In accordance with its admissions standards, Odessa College will admit as students any persons, who can benefit from the instructional programs offered. In addition, Odessa College will strive to meet post-secondary educational needs of its students by restructuring current programs and by creating new programs when so doing will benefit the students.

Title IX of the Civil Rights Restoration Act prohibits sex discrimination in all programs of institutions which receive federal funds. Inquiries regarding Title IX should be made to the Title IX compliance person in the Personnel Office, or to the Assistant Secretary for Civil Rights at the Department of Education, Washington, D.C. 20202.

Directory Information

Odessa College classifies as directory information the following student data: name, address, telephone number, date and place of birth, major field, participation in official activities and sports, weight and height of athletic team members, dates of attendance, degrees and awards received and most recent educational institution attended. Such information is normally released to individuals upon request. Students who do not want this directory information released must file a written statement to that effect with the Registrar's Office. The written statement must be filed each semester.

Identification Cards

Odessa College requires photo identification cards for all on-campus, credit-hour students. ID cards are used for admission to Odessa College student activities events, athletic events, fine arts presentations and library privileges. ID card fees are non-refundable in case of withdrawal from the college.

Full information regarding ID cards can be obtained from the Business Office, located in the Administrative Wing of the Student Union Building.

Oath of Residency and Documentation

House Bill 1147, passed by the 69th Texas Legislature, requires each public institution of higher education to obtain an oath of residency and documentation from each individual who qualifies as a resident for tuition purposes.

Financial Information

PLEASE NOTE THAT *the following tables reflect the 1993-94 tuition and fee rates adopted by the Odessa College Board of Trustees. The schedule is subject to revision by the Legislature of the state of Texas, the Odessa College Board of Trustees and/or the administration of Odessa College. Please check at the time of registration for any changes in tuition and fee rates.*

These tables reflect only the tuition and fees required of ALL STUDENTS.

Parking and other course fees may be applicable.

See: LABORATORY FEES
PRIVATE LESSON FEES
TRAVEL FEES
TESTING FEES
MISCELLANEOUS FEES

on pages 223-224 for additional charges.

IN-DISTRICT TEXAS RESIDENT

Semester Hours	Tuition	Building Use Fee	Activity Fee	ID Fee (Non-Refundable)	Computer Fee	** TOTAL BEFORE LAB, PARKING & OTHER FEES
1	48.00	6.00	1.00	1.00	1.00	57.00
2	48.00	12.00	2.00	1.00	2.00	65.00
3	48.00	18.00	3.00	1.00	3.00	73.00
4	64.00	24.00	4.00	1.00	4.00	97.00
5	80.00	30.00	5.00	1.00	5.00	121.00
6	96.00	36.00	6.00	1.00	6.00	145.00
7	112.00	42.00	7.00	1.00	7.00	169.00
8	128.00	48.00	8.00	1.00	8.00	193.00
9	144.00	54.00	9.00	1.00	9.00	217.00
10	160.00	60.00	10.00	1.00	10.00	241.00
11	176.00	66.00	11.00	1.00	11.00	265.00
12	192.00	72.00	12.00	1.00	12.00	289.00
13	208.00	78.00	13.00	1.00	13.00	313.00
14	208.00	84.00	14.00	1.00	14.00	321.00
15	208.00	90.00	15.00	1.00	15.00	329.00
16	208.00	96.00	16.00	1.00	16.00	337.00
17	208.00	102.00	17.00	1.00	17.00	345.00
18	208.00	108.00	18.00	1.00	18.00	353.00
19	208.00	114.00	19.00	1.00	19.00	361.00
20	208.00	120.00	20.00	1.00	20.00	369.00
21	208.00	126.00	21.00	1.00	21.00	377.00
22	208.00	132.00	22.00	1.00	22.00	385.00
23	208.00	138.00	23.00	1.00	23.00	393.00

Semester Hours	Tuition	Building Use Fee	Activity Fee	ID Fee (Non-Refundable)	Computer Fee	** TOTAL BEFORE LAB, PARKING & OTHER FEES
1	63.00	6.00	1.00	1.00	1.00	72.00
2	63.00	12.00	2.00	1.00	2.00	80.00
3	63.00	18.00	3.00	1.00	3.00	88.00
4	84.00	24.00	4.00	1.00	4.00	117.00
5	105.00	30.00	5.00	1.00	5.00	146.00
6	126.00	36.00	6.00	1.00	6.00	175.00
7	147.00	42.00	7.00	1.00	7.00	204.00
8	168.00	48.00	8.00	1.00	8.00	233.00
9	189.00	54.00	9.00	1.00	9.00	262.00
10	210.00	60.00	10.00	1.00	10.00	291.00
11	231.00	66.00	11.00	1.00	11.00	320.00
12	252.00	72.00	12.00	1.00	12.00	349.00
13	273.00	78.00	13.00	1.00	13.00	378.00
14	273.00	84.00	14.00	1.00	14.00	386.00
15	273.00	90.00	15.00	1.00	15.00	394.00
16	273.00	96.00	16.00	1.00	16.00	402.00
17	273.00	102.00	17.00	1.00	17.00	410.00
18	273.00	108.00	18.00	1.00	18.00	418.00
19	273.00	114.00	19.00	1.00	19.00	426.00
20	273.00	120.00	20.00	1.00	20.00	434.00
21	273.00	126.00	21.00	1.00	21.00	442.00
22	273.00	132.00	22.00	1.00	22.00	450.00
23	273.00	138.00	23.00	1.00	23.00	458.00

OUT-OF-STATE OR FOREIGN

Semester Hours	Tuition	Building Use Fee	Activity Fee	ID Fee (Non-Refundable)	Computer Fee	** TOTAL BEFORE LAB, PARKING & OTHER FEES
1	300.00	6.00	1.00	1.00	1.00	309.00
2	300.00	12.00	2.00	1.00	2.00	317.00
3	300.00	18.00	3.00	1.00	3.00	325.00
4	300.00	24.00	4.00	1.00	4.00	333.00
5	300.00	30.00	5.00	1.00	5.00	341.00
6	300.00	36.00	6.00	1.00	6.00	349.00
7	300.00	42.00	7.00	1.00	7.00	357.00
8	300.00	48.00	8.00	1.00	8.00	365.00
9	300.00	54.00	9.00	1.00	9.00	373.00
10	300.00	60.00	10.00	1.00	10.00	381.00
11	300.00	66.00	11.00	1.00	11.00	389.00
12	300.00	72.00	12.00	1.00	12.00	397.00
13	300.00	78.00	13.00	1.00	13.00	405.00
14	300.00	84.00	14.00	1.00	14.00	413.00
15	300.00	90.00	15.00	1.00	15.00	421.00
16	300.00	96.00	16.00	1.00	16.00	429.00
17	300.00	102.00	17.00	1.00	17.00	437.00
18	300.00	108.00	18.00	1.00	18.00	445.00
19	300.00	114.00	19.00	1.00	19.00	453.00
20	300.00	120.00	20.00	1.00	20.00	461.00
21	300.00	126.00	21.00	1.00	21.00	469.00
22	300.00	132.00	22.00	1.00	22.00	477.00
23	300.00	138.00	23.00	1.00	23.00	485.00

LAB FEES

These were the laboratory fees in effect at the date of publication. Please check at the time of registration for any changes.

Accounting ACCT 1370,2401,2402 ..... 15.00
Art: Jewelry ARTS 2341,2342 ..... 10.00
Art: Pottery ARTS 2346,2347 ..... 24.00
Art: Sculpture ARTS 2326,2327 ..... 15.00
Automotive Technology Except: AUTO 1301,2377 ..... 24.00
Biology Except: BIOL 1170 ..... 15.00
Building Trades Except: BLDG 2377 ..... 24.00
Business Computer Info Systems Except: BCIS 1200,2112,2188,2288,2377 ..... 15.00
Chemistry CHEM 1105,1111,1112,2101,2123,2125 ..... 15.00
Child Development CHLD 1302,1305,1307,1308,1311,2304,2305,2306,2403 ..... 10.00
Clinical Laboratory Science CLSC 1211,1212,1500,2211,2212 ..... 15.00
Computer Science All Courses 15.00
Culinary Arts Except: CA 1222,1320,1321,1322,2215,2216,2217,2223,2224 ..... 20.00
Culinary Arts CA 2215,2216,2217 ..... 24.00
Diesel Mechanics Except: DESL 2377 ..... 24.00
Drafting Except: DRAF 1401,2377,2408,2418 ..... 5.00
Drafting DRAF 2408,2418 ..... 24.00
Electrical & Electronics Except: ELEC 2201,2203,2205,2302,2305,2377 ..... 24.00
Electrical & Electronics ELEC 2414 ..... 15.00
Emergency Medical Technology EMED 1501,2801,2802 ..... 15.00
Engineering ENGR 1370 ..... 5.00
English ENGL 0171,0172,0173,0174 ..... 5.00
English ENGL 0370,1301,1312 (Word Processing) 10.00
Fire Fighter Academy OCFA 2401,2402,2403 ..... 24.00
Foreign Language All 1411 and 1412 courses 10.00
Geology GEOL 1403,1404 ..... 15.00
Health Education PHED 1171,1306,2171 ..... 5.00
Heating, Vent, Air Conditioning Except: HVAC 2204,2205,2302,2305,2377 ..... 24.00
Law Enforcement/Criminal Justice CRIJ 2370 ..... 20.00
Law Enforcement/Criminal Justice CRIJ 2471 ..... 24.00
Law Enforcement Academy Lab LEA 2415 ..... 10.00
Law Enforcement Academy Lab LEA 2416 ..... 24.00
Machine Technology Except: MACH 2377 ..... 24.00
Maintenance Technology Except: MAIN 2302,2377 ..... 24.00
Mass Communication COMM 2120,2220,2325 ..... 10.00
Medical Laboratory Sciences ..... See Clinical Laboratory Sciences
Music, Class Instruction MUSI 1170,1171,1172,1173,1174,1175,1176,1177 ..... 20.00
Nursing Except: NURS 1201,2374 ..... 15.00
Office Education OFST 1321,1322,1404,OE 1401,1402 ..... 10.00
Office Education OFST 1100,2202,2203,2301 ..... 5.00
Petroleum Technology PETR 1380 ..... 15.00
Petroleum Technology PETR 2303 ..... 10.00
Petroleum Technology PETR 1800 ..... 24.00
Photography Except: PHOT 2370 ..... 10.00
Physical Education Except: PHED 1100,1108,1109,1119, 1306, 2278 ..... 5.00
Physical Education PHED 1100,1306 ..... 10.00
Physical Education PHED 1108,1109,1119 ..... 24.00
Physics Except: PHYS 1371 ..... 5.00
Radio Broadcasting ..... See Mass Communication
Radiologic Technology XRAY 1111,1112,1314,1402 ..... 15.00
Reading All courses (per semester hour) 2.00
Refrigeration/Air Conditioning ..... See Heating,Vent,Air Conditioning
Respiratory Care RESP 1101,1112 ..... 15.00
Surgical Technology SURG 1411 ..... 15.00
Television ..... See Mass Communication
Welding Except: WELD 2377 ..... 24.00

Private Instruction Fees

Applied Music 1/2 hour private instruction 20.00
Applied Music 1 hour private instruction 40.00

Testing Fees

Course	No. Test	Cost per Test	Total
Nursing 1612 (Kermit) NLN Exams	2	8.00	16.00
Nursing 1613 (Kermit) NLN Exam	1	8.00	8.00
Nursing 1615 (Kermit) NLN Exams	3	8.00	24.00
Nursing 1630 NLN Exams	4	8.00	32.00
Nursing 1851 NLN Exam	1	8.00	8.00
Nursing 1933 NLN Exams	4	8.00	32.00
Nursing 2535 NLN Exams	5	8.00	40.00
Nursing 2953 NLN Exams	2	8.00	16.00
Nursing 2954 NLN Exams	5	8.00	40.00
Respiratory Care (RESP 1333)	1	25.00	25.00
Respiratory Care (RESP 2262)	1	60.00	60.00

Miscellaneous Fees

Advanced Standing Examination 20.00
General Property Deposit (Refundable) 10.00
Student Identification Fee, Each Semester (Non-Refundable) 1.00
Fire Academy (Equipment & Books-estimated) 75.00
Law Enforcement Academy (Equip and Books, estimated) 250.00
Nursing, LVN (Andrews Equipment Fee-NURS 1611) 85.00
Nursing, LVN (Kermit Equipment Fee-NURS 1611) 129.00
Respiratory Care (Equipment Fee RESP 1111) 75.00
Schedule Change Fee 5.00
*Student Liability Insurance (Fall and Spring Semester) 8.00
*Student Liability Insurance (Summer I and II) 6.00
*Student Liability Insurance (Cosmetology students, per course) 5.00
Transcript Requested from OC, Official Copy (first copy is free) 1.00
Transcript Requested from Another Institution 5.00
**Vehicle Registration (Fall Semester, Spring Semester) 4.00
**Vehicle Registration (Summer I, Summer II) 1.00

**Student Liability Insurance or proof of comparable coverage is required for students enrolled in Child Development, Clinical Laboratory Sciences, Emergency Medical Technology, Nursing, Radiologic Technology, Respiratory Care, Surgical Technology, Physical Therapist Assistant, and Student Trainer.*

***Vehicle registration fees are refundable only upon complete withdrawal during the scheduled withdrawal period and only upon return of the parking sticker.*

Refund Policy

Tuition and fees paid directly to the college by a sponsor, donor, grant, loan or scholarship shall be refunded to the source rather than directly to the student.

Class day means the day the session is designated to begin and each consecutive school day on which classes are held thereafter.

To have a refund authorized, a student must present a completed withdrawal request form to the Business Office. Refer to the section in the catalog or Student Handbook on "Withdrawal" for procedures.

Canceled classes: If a class is canceled by the college, all tuition and fees for that course will be refunded.

Dropped courses: Students who drop classes before the official day of record (12th class day during the fall and spring semesters and fourth class day during the summer) but remain enrolled at Odessa College will have 100 percent of applicable tuition and fees refunded, less a schedule change fee of $5. Students who drop classes before the official day of record and are no longer enrolled at Odessa College will have tuition and fees refunded according to the percentages used when completely withdrawing from Odessa College.

Withdrawal from the college: Students who officially withdraw from Odessa College will have their tuition and mandatory fees refunded according to the following schedule:

Fall and Spring Semesters
When the withdrawal occurs:
Prior to the first class day
(less $15 processing charge) 100%
During the first five class days 80%
During the second five class days 70%
During the third five class days 50%
During the fourth five class days 25%
After the fourth five class days ..... none

Summer Semesters and Open-entry Classes
When withdrawal occurs:
Prior to the first class day
(less $15 processing charge) 100%
During the first, second,
or third class day 80%
During the fourth, fifth,
or sixth class day 50%
After the sixth class day ..... none

Extension courses: Students enrolled in extension classes may be charged an additional fee, depending upon the course and center in which the class is held.

Payment by check: Positive identification (drivers license preferred) is required for any payment to Odessa College. Checks are accepted for the exact amount of tuition and fees only. All checks are to be payable to Odessa College. The college does not accept two-party checks or payroll checks.

Payment by credit card: The college will accept VISA, MasterCard, American Express and Discover for payment of tuition and fees with proper approval.

Returned check policy: Checks for tuition and fees returned by the bank for any reason constitute the student's automatic withdrawal from all classes, unless the tuition and fees are paid within five days of the date notification is mailed to the student. All returned checks are collected through Collectrite. A returned check fee of $25 plus tax is charged per check by Collectrite. Odessa College reserves the right to require payment in cash from individuals with a history of returned checks. Stop payments will be considered the same as returned checks.

Schedule change fee: A schedule change fee of $5 will be charged for all schedule changes made during the first 12 class days of a regular semester or during the first four class days of a summer session except for the following situations:

a. When a change or drop constitutes a withdrawal from the college.
b. When semester hours are only added to the existing schedule.
c. When the change is for the convenience of the college or has been caused by a college-canceled class, change in class time, departmental request, etc.

All exceptions to the assessed schedule change fee will be made in the Registrar's Office. No schedule change will be processed until all fees associated with the change are paid.

Residence Status for Tuition Purposes

Assessment of tuition and fees for students is based on the residency classification of the student. At Odessa College, a student's residence status for tuition purposes will fall in one of four categories.

1. **In-district resident:** Students who are 18 years or older must have been a resident of the state of Texas for 12 months prior to their enrollment, including six months as a resident in the Odessa Junior College District. In the case of students under 18 years, their parents must meet the above criteria.
2. **Out-of-district resident:** Students 18 years and older who have not lived within the Odessa Junior College District six months prior to registration, but who have been a resident of Texas at least 12 months prior to registration, are considered to be out-of-district students. In the case of students under 18, their parents must meet the above criteria.
3. **Out-of-state resident:** United States citizens who are 18 years of age or older and who have not lived in Texas for at least 12 months prior to registration, are considered out-of-state residents. When students are under 18 years of age, their family's residence for the prior 12 months determines whether they are out-of-state residents.
4. **Alien resident:** A citizen of another country who is in the United States on a student visa other than an immigrant visa will be classified as an alien student.

Waiver of residence requirements:

Odessa College will waive the difference in the rate of tuition for resident and non-resident students and their dependents when those individuals own property, including land, homestead and property for business purposes, subject to ad valorem taxation. The student must present the Admissions Office with a certified copy of the warranty deed obtained from the Ector County Clerk's Office. This deed must show a record title of the Ector County property to be in the name of the student, spouse or parents, whichever is applicable.

The determination of a student's legal residence for purposes of establishing the appropriate tuition rates is made at Odessa College according to guidelines pursuant to Title 3, Texas Education Code: **Rules and regulations for determining residence status**, effective summer 1992. Students should be aware that these guidelines are subject to further revision.

Copies of these guidelines are available for inspection in the office of the Director of Admissions/Registrar. Questions or disputes regarding interpretation of these guidelines should be directed to this office.

Resident Classification: Student Responsibility

Students are responsible for registering under the proper residence classification. If there is any question regarding their right to classification as a resident of Texas, they should inquire at the registrar's office.

Students found to be non-residents will remain in that classification as long as they attend Odessa College or until they petition for and receive approval for change of status.

Students classified as a resident but who become non-residents at any time by virtue of a change of a legal residence by their own action or by the person controlling their domicile are required to notify the Registrar's Office.

Valedictorians

Valedictorians of Texas high schools are eligible for exemption from payment of tuition during both regular semesters at Odessa College following their graduation from high school. Since this is only a tuition exemption, valedictorians are encouraged to apply for other scholarships since their top-ranking status is certainly worthy of consideration for other awards.

Financial Aid

Odessa College is firmly committed to the philosophy of assisting those students who do not have the financial resources to pay for higher education but who wish to attend college. Of equal importance is the awarding of academic scholarships to recognize those students who exhibit superior scholastic abilities.

The financial aid office administers four broad program areas: grants, employment, scholarships and loans. An institutional application and a Free Application for Federal Student Aid (FAFSA) are required for all need-based financial aid programs; only an institutional application is required for scholarships. Both the institutional application and the FAFSA are available from the Odessa College Financial Aid Office. Most high school counselors also have the FAFSA.

When requesting information about financial aid programs, students should ask for an application packet and the Financial Aid Bulletin. The bulletin provides detailed information about aid programs, including general eligibility requirements and satisfactory academic progress.

Types of Student Financial Aid:

Grants

The Federal Pell Grant Program provides the foundation of student financial aid and thus serves as the starting point in the aid process. A number of factors including a student's range of eligibility, cost of education and enrollment status determine the award. Pell Grants are awarded in three student-load categories: (1) enrollment in 12 or more semester hours for a full-time award; (2) enrollment in nine to 11 semester hours for three-fourths of a full-time award; and (3) enrollment in six to eight semester hours for one-half of a full-time award.

Application for a Pell Grant is made by completing a FAFSA and entering the correct response on the form which will initiate application of a Pell Grant and the programs described below.

Students will receive a **Student Aid Report (SAR)** from the Pell Grant Processing Center as a result of their application. All copies of the SAR should be submitted to the Financial Aid Office as soon as they are received to expedite processing of the award.

The Federal Supplemental Educational Opportunity Grant (SEOG) is for students with high financial need and is usually combined with other forms of assistance to help students meet their cost of education. Application is made by completing a FAFSA.

The Texas Public Education Grant (TPEG) is also for students with financial need and is designed to assist students in enrolling and remaining in college. The FAFSA serves as the application.

The State Student Incentive Grant (SSIG) is a combination Texas-federal grant for students with financial need. The FAFSA serves as the application.

Loans

The Federal Family Education Loan Program (FFELP) (formerly Texas Guaranteed Student Loan Program) is a long-term loan program which allows a student to borrow directly from a bank, savings and loan, credit union or other lending institution. Since not all financial institutions participate in the program, students may not be able to use their regular banking institution. The Financial Aid Office will assist in trying to locate a lender if the student is unable to find one.

The higher education amendments of 1986 have changed many aspects of this program. Application requirements now include a FAFSA and an institutional aid application since the FFELP is now completely need-based. This program is fully described in the Financial Aid Bulletin.

The Unsubsidized Federal Stafford Loan Program is intended to provide loans to those students who do not qualify for a subsidized Federal Stafford Loan or who qualify for a subsidized Federal Stafford Loan in an amount less than the annual Federal Stafford limit.
The application procedure is the same as for the Federal Stafford Loan Program.

For independent students who cannot qualify for a Stafford Loan there is a non-subsidized loan program called the **SLS or Supplemental Loan for Students.** A student must complete the FAFSA and all aspects of the financial aid process. The interest rate is variable, subject to change annually and it is not paid by the government. A student is deferred as long as he or she is in school, but payments are due during summer months. Beginning January 1, 1991, first installments of Stafford Loans and the SLS must be delayed 30 days for first-time, first-year undergraduate students.

Dependent students who cannot qualify for a Stafford Loan may have their parents borrow for them under the **PLUS program.** It is not subsidized, the interest rate is variable and monthly payments must begin 60 days after disbursement. Parents do not have to fill out the FAFSA.

Short-term institutional loans are made by Odessa College to assist students with registration costs. A student attempting to enroll at Odessa College is eligible to apply if the student does not have an existing short-term loan. The amount of the loan is for tuition and fees for the current semester. These loans are processed on a first-come, first-served basis. Book loans are not available.

Campus Employment

The Federal College Work-Study Program (FCWS) provides employment opportunities to students who have established financial need. Students work in a wide variety of jobs compatible with their interests and abilities and are paid at least the prevailing minimum wage. Although need determines the amount of total allowable earnings, students generally do not work over 20 hours per week and arrange their working hours so as not to conflict with classes. Application for the program is made by completing a FAFSA.

The Texas College Work Study Program provides employment opportunities to students who have established financial need. Funds are limited and athletes are not eligible for the program. Application for the program is made by completing the FAFSA.

Non-Work-Study Jobs are available in some departments. These part-time jobs are not need related and the employing department has considerable flexibility in meeting employment needs. Applications may be made to the department in which the student is interested in working.

Scholarships

Odessa College academic scholarships are offered annually to recognize scholastic merit. **The Career Advancement Scholarship** has been established to encourage students to pursue career goals and although academic performance is part of the selection criteria, recipients need not be a high ranking honor student to receive the award. Need is not considered for either scholarship. Application should be made to the financial aid office.

Departmental scholarships are offered each year through the art, music and speech (forensics) departments and are based upon performance, merit, skill and ability. Specific information and application requirements may be obtained by contacting the particular department chair of the scholarship area in which the student is interested.

The Noel Scholarship is available to students through generous gifts from Ellen and the late Bill Noel. The award is restricted to children of employees of Rexene Corporation in amounts intended to cover tuition, fees and books.

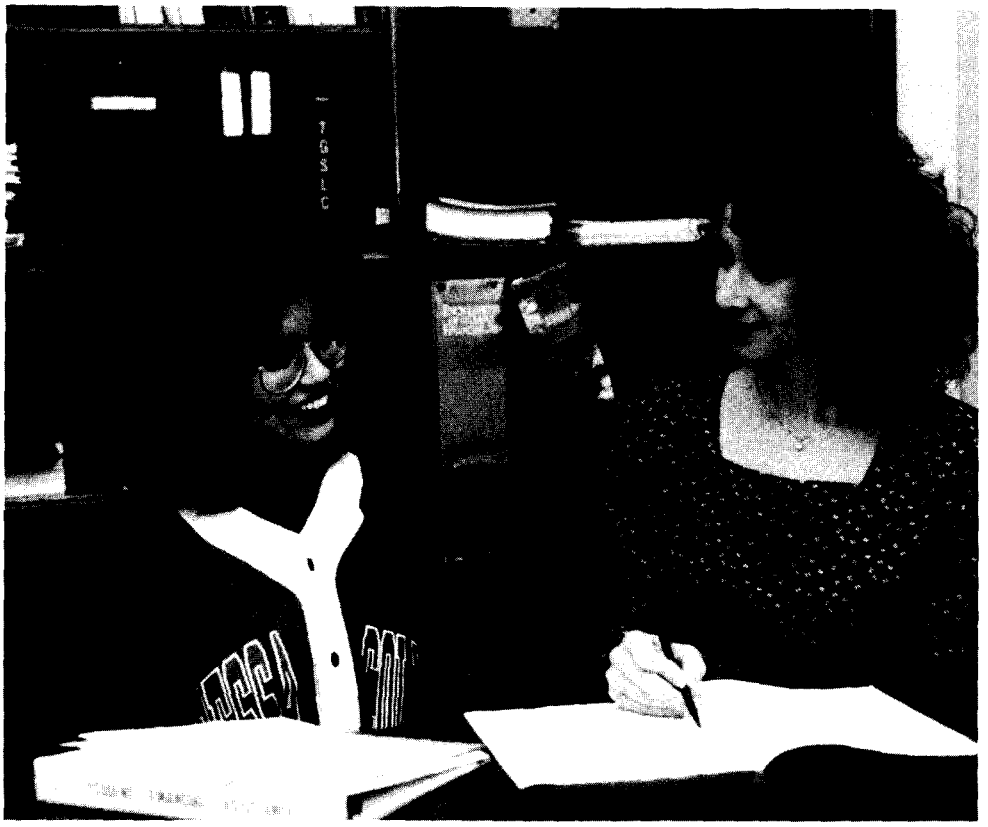
The Permian Honor Scholarship Foundation invites graduating high school seniors who rank in the top 25 percent of their class to apply for a Permian Honor Scholarship. If selected, a student is granted $250 per semester for eight consecutive, full-time semesters; four semesters are applicable at Odessa College while the remaining four semesters are available at the University of Texas of the Permian Basin. Students must complete each semester with a minimum of 12 credit hours and with a 2.50 grade point average to maintain their eligibility. Applications are available from the foundation or from area high school counselors.

Other scholarships

In addition to the scholarships described on the previous page are also available to students attending Odessa College. Many individuals and organizations cooperate with Odessa College in their search for scholarship recipients. These awards are not controlled by, nor are selections made by the college, but every attempt is made to provide applications to these parties within the framework of applicable restrictions. Since some organizations do not contribute annually and other contributors are not known at print time, it is not possible to catalog and list each donor.

Veterans

Veterans interested in taking advantage of their benefits to pursue or further their education are encouraged to contact the Veteran's Officer at Odessa College. As with the other programs described above, students are strongly encouraged to inquire into the possible benefits of the Veterans Administration as far in advance of the semester of planned attendance as possible. This procedure facilitates the coordination of educational claims for benefits between Odessa College and the regional VA office and avoids delays that could occur in the award cycle. The veterans office is a component of the Financial Aid Office located in Room 203 of the Student Union Building. Veteran students are responsible for following all regulations of the VA and for notifying both the regional VA office in Waco and the Odessa College veterans office of any change in enrollment that may affect their educational benefits.



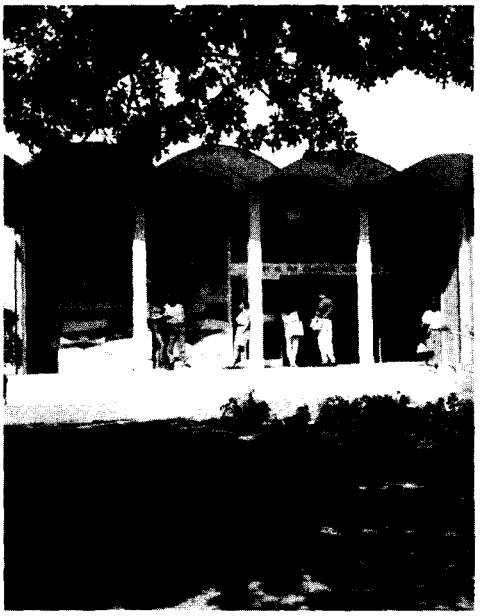
Academic Guidelines

That all students receive the best education possible is the primary goal of Odessa College. Whether they intend to transfer to other institutions after completing their studies at Odessa College or whether they intend to put their learning to immediate use in the job market, students are assured that they will obtain quality education at Odessa College. They will receive an education that will be meaningful in all areas of their lives.

Academic needs of all students are important at Odessa College. Programs have been initiated for students who need basic instruction to raise their proficiency in a particular subject area. Similarly, special programs are offered for students who excel. The college has well-equipped facilities for its reading and writing laboratories, its computer-assisted instruction center and its health sciences learning center. In addition, laboratories to assist in instruction in physical and natural science are provided. Also on an individualized basis, personal development courses are available. But perhaps the most important factor of all is a concerned faculty and staff who want to help students succeed. As a result, Odessa College practices its belief that quality instruction and academic excellence must not be compromised.

University-parallel programs at Odessa College focus on academic excellence. Students who intend to transfer from Odessa College to other institutions build solid foundations for their educational pursuits. More often than not, their performance on the senior college level equals or surpasses that of those students who attend their selected senior college or university beginning with the freshman year.

Technical programs at Odessa College educate students who, upon completion, will then exhibit outstanding proficiency with on-the-job skills. Program directors, supervisors and faculty work closely with advisory committees from business and industry to assure that students learn the skills they will need on the job. As a result, students who complete these programs receive both practical education and professional skills that contribute to their success in their respective careers.



To make college instruction even more accessible to more people, some programs offer open-entry classes. This procedure allows students to enroll in some courses at almost any time during a long semester rather than having to wait until a regular term begins. In addition, innovative instructional approaches and scheduling in some departments allow students to complete a three-semester-hour course in some subjects in only eight weeks. The instructional staff at Odessa College constantly searches for ways to better serve students without compromising instructional quality.

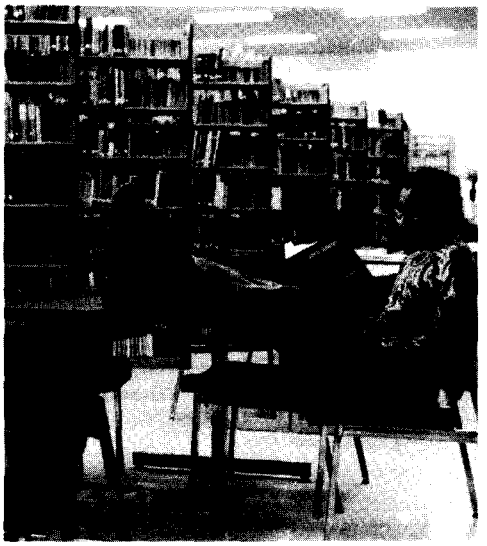
All instructional programs are reinforced by strong support services. A Learning Resources Center, which houses the library, provides rich resources to supplement classroom instruction. Faculty members also use the Learning Resources Center and the instructional media program to enrich their accumulated resources and to enhance their proven teaching methods.

Learning Resources Center

The essential objective of the Murry H. Fly Learning Resources Center (LRC) is to support and enhance curriculum programs and classroom research needs. Utilizing the concept of an independent learning laboratory and classroom adjunct, the LRC proves a wide assortment of services and resources of more than 70,000 books, 525 current periodicals, 10 daily or weekly state and national newspapers and 4,000 audiovisual holdings. In addition, numerous multimedia and computer-assisted instructional programs are available for particular disciplines, as well as extensive files of thousands of pamphlets, articles, reprints, etc. of information not otherwise accessible. The technical services department works closely with the faculty and staff in selecting and acquiring books and audiovisual materials to serve the instructional and support programs of the college.

Access to information on the LRC's circulating collection is available on an on-line catalog along with other information sources. The campus also uses the on-line catalog for access to Internet, the nation's information highway. Use of the system is available both on campus and at extension sites. Additionally, computer technology is used for several reference tools such as Expanded Academic Index, Health Reference Center on CD-ROM, MLA, StatBank, World Book and Grolier's Electronic Encyclopedia. A specialized resource, Newsbank, a monthly compilation by subject of data from more than 2,000 U.S. and Canadian newspapers and journals, also is available. A comprehensive collection of U.S. college catalogs is also maintained. Several microcomputers with printers are available for use with an extensive software collection containing the more popular word processing, database management and spreadsheet systems.

To further enhance readily available resources, the LRC contracts with a national database vendor for direct access to over 80 major educational-industrial commercial databases holding in excess of 50 million records. A reference interview is required to determine actual needs. The Public Services Department provides both general and



specific instruction in the effective use of the LRC. Classroom instruction is also available upon request. The Media/Computer Services Department provides viewing areas and assistance with all media formats. General classroom instruction efforts are assisted by scheduled delivery/pickup and maintenance of equipment. Suggestions and comments regarding materials or services are continually and seriously invited.

Instructional Television

Telecourses, college-credit classes taught with the aid of television, are offered throughout the year. Courses offered vary each semester and are applicable toward several degree plans. All telecourses are identified in class schedules published each semester.

For those students who have work schedules that conflict with on-campus instructional times or who have difficulty commuting to campus, telecourses provide the opportunity to select a class time compatible with almost everyone's obligations. While telecourses are more convenient than on-campus classes, they are not easier than on-campus classes.

Telecourses combine televised lessons with related reading and writing assignments in addition to on-campus sessions for orientation, review and examination.

All course components are supervised by a faculty member available to students by telephone during predetermined hours.

KOCV-TV/Channel 36, a member of the Public Broadcasting Service, broadcasts individual lessons at least once during the week and again on weekends. Typically there are 30 one-half hour tapes in a course. KOCV's signal can be received in an approximate 30-mile radius of Odessa. Cable companies in Andrews, Crane, Midland, Monahans, Odessa, Stanton and other surrounding communities also carry the signal. Copies of all the telecourse videotapes are available in the Learning Resources Center for students who miss a broadcast.

Students may register for the telecourses during all regularly scheduled registration periods both on campus and at all off-campus registration sites. Tuition and fees for telecourses are the same as for on-campus instruction.

Course Load

The normal course load that full-time students may carry during a regular semester will vary with the particular courses for which they have enrolled. Students are classified as full-time when they are enrolled in 12 or more semester hours, but students will normally enroll in 15 to 18 hours each semester as outlined in their course of study or degree plan. Students will not be permitted to take more than six courses of three or more semester hours in one semester without written approval from the Registrar's Office unless a particular course of study for an associate's degree, a Certificate of Technology, or a Certificate of Completion specifies a total semester-hour load exceeding 18 hours.

A normal load during each term of the summer session will vary from three to seven semester hours. Generally, the maximum credit that a student may earn during the entire summer sessions is 14 semester hours. In the midwinter session, one course may be taken for the normal amount of credit derived during a regular semester.

The maximum course load for students enrolled in evening classes depends on individual circumstances and ability of the students. The normal load for evening students who have full-time employment is six semester hours or two courses.

Students who are employed while attending classes or who have experienced difficulty previously in academic work should plan course loads in such a way that ample time can be given to all these demands. Usually, three hours of preparation time are needed for each hour of classroom time. Therefore, an average student should plan on investing nine hours of preparation time outside of class each week for each three-hour course taken. Students are encouraged to consult a college counselor or faculty advisor to determine the best program possible.

Open-entry/Open-exit Program

Open-entry/open-exit classes are available in Cosmetology. This area of instruction features continuous registration and admissions throughout the school year. This intensive program is designed to fit the individual needs of persons interested in learning a new skill or updating existing ones as quickly as possible.

A special advantage of this program is that students may register at any time and may begin classes immediately instead of waiting for the beginning of a term or semester. Skilled instructors who have many years of professional experience in their teaching field closely supervise students in their classes.

Information about this open-entry/open-exit program is available from the specific program director, the Counseling Center, the Admissions Office or the News and Information Office.

Flexible-entry Opportunities

Flexible-entry classes are also offered in the following academic and occupational programs: Emergency Medical Technology, English, Mathematics, Office Systems Technology, Automotive Technology, Photography, Reading, and Refrigeration/Air Conditioning. Students may register for these classes at various times during the semester. The program director or the Admissions Office should be contacted for information.

Student Classification

Students who have completed 29 semester hours or fewer will be classified as freshmen. Students with more than 29 semester hours will be classified as sophomores.

Students will be classified as full-time if they are enrolled in 12 or more semester hours. Students enrolled in fewer than 12 hours will be classified as part-time.

Grades

Grading measures the ability of students to master specific objectives within a given course. A grade is based upon the level of performance in examinations, term papers, reports, class discussion and the final examination in the course or project. Odessa College uses the following grade and grade point system:

Grade	Description	Grade Points Per Semester Hour
A	Excellent	4
B	Above average	3
C	Average	2
D	Passing, but poor	1
I	Incomplete (will be calculated as an F for GPA)	0
P	In progress/ grade not reported	0
Z	No grade assessed; requires re-enrollment	0
F	Failure	0
N	Audit (not taken for credit)	0
W	Official withdrawal	0
S	Advanced Standing (credit by examination)	0
T	Transfer credit	0

Note: If a course is repeated, the latest grade will be computed in the GPA if the student requests this option in the Registrar's Office. Some schools to which the student might transfer may not exclude the first grade when calculating the student's GPA.

Students are obligated to know their standing and rating in college classes during the semester and to secure these ratings before registering for the next semester. Students are expected to be familiar with their scholastic status at all times. Advisors and counselors are available and will confer with students during and at the end of the semester concerning unsatisfactory work. Such conferences should help determine the cause of unsatisfactory work, and the counseling staff will advise students on ways to improve their performance and will offer any assistance which the faculty and staff can provide.

Grade Point Average and Semester Hours

There are two bases for computing the grade point average (GPA): the semester grade point average and the cumulative grade point average. The GPA for any semester is determined by multiplying the number of semester hours for each course by the number of grade points corresponding to the final grade for the course. The total of all such products for the semester is then divided by the number of semester hours attempted for that period. Incomplete grades are included in calculations of grade averages as an "F" when the final grades for that semester have been recorded. When the course is completed and a grade is assigned by the instructor, the grade point average is correspondingly recalculated. Grades of "W" are not included in the GPA calculation.

The cumulative grade point average is calculated by dividing the total number of grade points by the total number of semester hours attempted by the student in all semesters.

Scholastic Standards

Odessa College is dedicated to providing students with opportunities for success in their course work and with support services. The college recognizes, however, that some students may encounter scholastic difficulties. Consequently, the college has designed a system of scholastic probation and scholastic suspension to identify students with scholastic problems and to provide a mechanism to aid them in recognizing and solving such problems.

All Odessa College degree and certificate plans require that students have a GPA of 2.0 or higher for graduation; therefore, students are considered to be in good standing as long as they maintain a GPA of 2.0 or higher on a semester or cumulative basis.

Scholastic Probation

At the end of each long semester, academic records of all students will be evaluated according to the following criteria:

1. The grade point average for the semester will be computed. If the GPA is 2.0 or higher, the student is considered to be in good standing.
2. If the GPA is less than 2.0, the cumulative GPA will be examined. If the cumulative GPA is 2.0 or higher, the student is still considered to be in good standing. If the cumulative GPA is less than 2.0, the student will be put on scholastic probation.

Scholastic probation warns students that they need to pay careful attention to academic progress. They will be given the opportunity to take advantage of special study-skills counseling through the Odessa College Counseling Center and appropriate assistance from the Developmental Studies Department.

Removal from Scholastic Probation

Students on scholastic probation return to good standing status by earning a GPA of 2.0 or higher the next long semester of enrollment at Odessa College or by having a cumulative GPA of 2.0 or higher at the end of the next semester. A GPA of 2.0 for either the semester or on a cumulative basis will remove students from scholastic probation.

Scholastic Suspension

Students who are on scholastic probation and who do not earn a GPA of 2.0 for the next long semester of enrollment at Odessa College or who do not earn a cumulative GPA of 2.0 by the end of the semester will be placed on scholastic suspension. Students in this category will not be allowed to enroll at Odessa College the next long semester.

Appeal of Scholastic Suspension

Students placed on scholastic suspension may appeal their status to the Director of Admissions. Extenuating circumstances may allow such students to enroll under continued scholastic probation with specified conditions. Students not in good standing at the end of the continued probation semester must withdraw for the next long semester.

Enrollment After Scholastic Suspension

Students who serve the designated semester of scholastic suspension may enroll for the next long semester. They are, however, still on scholastic probation. At the end of the semester, their GPA will be examined both on a semester and a cumulative basis to determine whether they have returned to good standing.

If their GPA meets minimum requirements, students may continue to enroll without special conditions. If, however, students do not meet minimum GPA requirements, they will again be placed on scholastic suspension. When scholastic suspension occurs a second time, the period of enforced withdrawal will be two long semesters. Following a two-semester enforced withdrawal, students must make a request in writing to the Director of Admissions for readmission on scholastic probation.

Special Conditions

Students on scholastic probation who enroll in summer school at Odessa College will not have their academic status altered as a result of summer school grades. Students on scholastic suspension who enroll in summer school at Odessa College, who earn a summer GPA of 2.0 or higher

and who pass a minimum of nine semester hours for both sessions may petition the Director of Admissions for permission to enroll for the fall semester on a continued scholastic probation basis.

Transfer students who are on scholastic probation or the equivalent from the last institution attended and who apply for admission to Odessa College will be required to submit an official transcript for evaluation by the Director of Admissions. Students who would be eligible to enroll according to Odessa College standards will be admitted and enrolled on scholastic probation for the first semester. Their future academic standing will be determined in the same manner as for other Odessa College students.

Repetition of Courses

All courses, including repeated courses, in which a student is registered on the official day of record will be listed on the official transcript and will appear on the student's permanent academic record. If a course is repeated, the last grade earned will be the grade calculated in the cumulative grade point average when requested by the student in the Registrar's Office. Withdrawals and incompletes, however, may not be used to replace an earned grade. This is not an automatic process. A student must request the change to be made in the Registrar's Office.

Incomplete Grades

The conditional grade of "I" means that students have not completed required work for a course, except in flexible entry classes. The grade may not be given unless students (1) have passed all work completed and (2) have completed a minimum of three-fourths of the required course work.

An "I" grade will not be assigned until conditions for completion of the course work are agreed upon by both the instructor and the student. Whenever possible, such an agreement should be in writing and should be signed by both the instructor and the student. The final decision as to whether a grade of "I" will be assigned rests with the instructor. When an "I" grade is assigned, incomplete work must be completed in the long semester immediately following the one in which the grade was assigned.

Grade Changes

All grade changes must be made by the end of the long semester following the one in which the original grade was assigned. For example, student requests for change of grade to "W" for an "F" received in the fall semester must make the request during the spring semester immediately following. Students wanting a grade change in a course taken during a summer session have until the end of the fall semester to effect the change. Any "I" grade not completed by the student and not changed by the instructor within the one-semester time limit will be computed as an "F" for grade point average purposes. Although an "I" is computed as an "F", the "I" remains on the student's record until the instructor completes a grade change. All grade changes are at the discretion of the instructor or, if the instructor is no longer available, the department chair.

Students are not routinely notified by the college when a grade change has been processed. Students should contact the instructor for the information or should request a new copy of their college transcript.

Withdrawal

So that all records are left in proper order, students who leave Odessa College before the end of a semester or before the end of a class for which they are registered must follow the official withdrawal procedure, which students themselves initiate in the Registrar's Office. Students who wish to withdraw should appear in person unless there are extenuating circumstances. When an individual other than the student initiates a withdrawal, that individual must be identified and verified for the student's protection. Students who stop attending class without officially dropping will receive an "F" in the class for the semester.

Students who drop classes or withdraw prior to the official census day for the semester will not be assigned a grade for the class or classes dropped. No record of the class will appear on their permanent academic records.

Grades of "W" will be assigned to all students who withdraw or drop semester-length classes during the official withdrawal period of any semester. Students who withdraw or drop classes will be responsible for contacting their instructors as a routine

part of the withdrawal process. The instructor will assign a grade of "W" and sign the withdrawal form. Students will then return the form to the Registrar's Office. A grade of "W" is assigned through the official withdrawal period for any semester.

The college reserves the right to withdraw students from any one or all of their classes if, in the judgment of college officials, such withdrawal is in the best interests of the students or the student body.

Class Attendance

Students are expected regularly to attend all classes in which they are enrolled. Records of student absences are kept by instructors; when students are absent from class, they are responsible for consulting with the instructor regarding the absence.

Students who plan to be absent to observe religious holy days must submit such notification in writing in person to the instructor of each class. Each instructor will date and sign an acknowledgment of receipt of the notification. The procedure may be handled in writing, in person or by certified mail with return receipt requested. Such notification to instructors must be made no later than the 15th day after the first day of the semester in which the absence is expected to occur. Within a reasonable time after students return to class following observance of religious holy days, they will be allowed to make-up examinations or to complete assignments scheduled during their absence.

Schedule Changes

At the beginning of each semester, the college designates a time for students to change their schedules by adding and/or dropping classes. These dates and times are specified in the class schedule for the semester. A schedule change fee of $5 will be charged for all changes except those caused by the college or those in which a student is only adding hours to the existing schedule.

Advanced Standing and Credit by Examination

Odessa College is an open testing center for **College Level Examination Program (CLEP)** and will administer those examinations to anyone making application, subject only to restrictions established by the Educational Testing Service and the College Entrance Examination Board. Advanced standing and/or credit may be awarded in some areas by Advanced Placement (AP) exams taken at the high school level. Departmental examinations are administered in most areas in which CLEP examinations are not used at Odessa College. Specific information about CLEP examinations may be obtained in the Testing Center. Department chairs should be contacted regarding applications for advanced standing examinations, credit by departmental exam, or advanced standing and/or credit through AP exams.

Odessa College will accept a total of 15 semester hours of advanced standing credit awarded either by the College Level Examination Program subject examinations, through credit awarded through Advanced Placement (AP) exams, or by approved Odessa College departmental examinations (exceptions for additional hours may be granted in some specialized programs such as law enforcement, nursing, and cosmetology or special circumstances which have been approved by the appropriate Division Dean). Students must complete in residence credits equal to the number received by examination before credit by CLEP, AP, or departmental examination will be noted on the student's permanent record card (exceptions may be granted in law enforcement or special circumstances which have been approved by the appropriate division dean).

Students who do not pass a departmental advanced standing examination may retake the test after a period of six months has elapsed, but they must receive permission from the respective department chair in order to do so. No departmental examination may be repeated more than once.

Students who receive advanced standing credit in a course may not apply for advanced standing in prerequisite courses or courses otherwise considered lower in level than the

one for which they currently have credit or are currently enrolled. Exceptions would be approved by the respective division dean.

Examinees should check with senior institutions of their choice concerning the acceptance of credit earned by advanced standing examinations. Transcripts will record credit given by examination but will not list a specific grade. Hours earned by examination will not be included in computing grade point averages, scholastic hours, residence requirements for graduation, or credit load requirements for Social Security or Veterans Administration benefits.

Concurrent Enrollment

In the concurrent enrollment program, high school students may earn both credit for a high school course and college credit for enrollment in a college course. For example, a high school student might enroll in an approved history course at Odessa College, attend only the college history course and be granted credit at both the high school and college levels.

To participate in the program, high school students must have the approval of their principal. Students must have or exceed an overall grade point average of 3.0 in the semester immediately preceding enrollment in a college course or have scored at or above the 90th percentile on the achievement subtest in the content area for which the students wish to enroll.

Any high school student wishing to participate in the concurrent enrollment program must apply to his or her high school counselor who will determine the student's eligibility for the program and the course load.

The high school counselor will work with the Odessa College director of admissions to ensure the availability of courses. In addition, the high school counselor will coordinate the student's concurrent schedules.

Concurrent enrollment students must submit to Odessa College the prescribed documentation signed by a parent or guardian, their high school counselor and the high school principal. The concurrent enrollment program has special regulations, and students participating in the concurrent enrollment program are responsible for following those regulations.

Further information on the concurrent enrollment program is available from the Odessa College admissions office and the high school counselors.

Early Admissions Program

The Early Admissions Program enables high school seniors to enroll simultaneously in Odessa College while completing their high school requirements. Students in the program can profitably accelerate their progress in college and achieve their educational goals in less time and with less expense than in the traditional program.

To be eligible for the program, high school seniors must be within four units or 12 quarter credits of graduation and have the recommendation of their high school counselor, their high school principal and the approval of their parents. They may then enroll in the regular manner at Odessa College.

Students in the Early Admissions Program may enroll in as many as two courses each semester. They will be expected to adhere to all policies of the college as well as those of their respective high school while in the program.

Participating students also have been given approval by the University Interscholastic League to retain their eligibility in league activities.

Information on the Early Admissions Program can be obtained from the Odessa College Director of Admissions or from counselors at participating high schools.

Honor Roll

Students enrolled in 12 semester hours or more during a long semester and making a grade of "A" in all courses are listed on the Summa Cum Laude Honor Roll. Full-time students who make no grade lower than "B" are listed on the Cum Laude Honor Roll.

Part-time and summer session students enrolled in two courses for a total of six semester hours or more and make a grade of "A" in all courses are listed on the Part-time Student or Summer Session Summa Cum Laude Honor Roll. Part-time students enrolled in two or more courses totaling six semester hours or more with no grade lower than "B" are listed on the Part-time Cum Laude Honor Roll.

Graduation Requirements

Students completing degree requirements during the summer or in December are encouraged to participate in spring graduation ceremonies. Students who complete requirements at the end of the spring semester will be expected to participate unless unusual circumstances prevent such participation.

To receive an associate's degree from Odessa College, students must complete degree requirements as set forth in the catalog and complete a degree application in the Registrar's Office by the deadline specified in the official college calendar. Summer graduates should observe the deadline for fall graduates.

Odessa College does not charge a graduation participation fee or a diploma fee. The cost for these items is paid by the college. Fees for caps and gowns and invitations are paid by students.

Graduation with Honors

A candidate for the associate's degree who has completed at least 30 semester hours in residence at Odessa College will be eligible for graduation with honors. A student with a grade point average of 3.5 to 3.699 will be graduated **cum laude**, a student with a grade point average of 3.7 to 3.899 will be graduated **magna cum laude**, and a student with a grade point average of 3.99 to 4.0 will be graduated **summa cum laude**.

Transcript of Record

The transcript of record is an official copy of the student's permanent record. Copies will be supplied upon written request. Students may instruct the registrar's office to mail official transcripts to colleges or universities to which they are applying or to prospective employers, etc. The first copy of a transcript is provided at no cost. A charge of $1 will be made for all subsequent copies.

To protect student records, Odessa College adheres to the conditions by which information about students can be released as set forth in The Family Educational Rights and Privacy Act of 1974, as amended.

Military Experience

Odessa College does not routinely give academic credit for military experience. If individuals have acquired skills normally learned in a course or in courses in their degree plan, they are encouraged to utilize the credit by examination option. Odessa College does award credit for physical education activity courses when a DD-214 is properly submitted to the Registrar's Office.

Students who have passed military CLEP examinations may have those results evaluated as if the testing were done under Odessa College guidelines. Credit will be awarded only if credit would be awarded on the basis of examinations taken at Odessa College.

If military credit has been awarded on an official transfer transcript from an institution accredited by the appropriate regional accrediting association, that credit will be evaluated in the same manner as any other transfer work.

Transfer Credit from Another Institution

Previous course work satisfactorily completed at regionally accredited institutions of higher education will be evaluated for transfer and may be applied toward a degree program at Odessa College.

A transcript will be evaluated after a student has registered for Odessa College credit classes and it will be evaluated only upon the request of the student. An official transcript is required from each college attended. The request for an evaluation should be made through the Registrar's Office, Room 202 of the Student Union Building.

When the evaluation is complete, the number of transferred hours will be recorded for degree audit purposes only and will be posted to the Odessa College transcript at graduation when the student has satisfied all degree requirements. Only those transfer courses accepted and listed on the student's degree plan will be posted to the Odessa College transcript.

If Odessa College does not accept lower division, academic course credit earned by a student at another Texas public institution of higher education, Odessa College shall give written notice to the student and the other institution that the transfer of the academic course credit is denied. The two institutions and the student

shall attempt to resolve the transfer of the academic course credit in accordance with Texas High Education Coordinating Board rules and/or guidelines. If the transfer dispute is not resolved to the satisfaction of the student or the institution at which the credit was earned within 45 days after the date the student received written notice of the denial, the party who is not satisfied shall notify the Commissioner of Higher Education or the commissioner's designee, who shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the dtermination to the involved student and institutions. Students shall be aware that this provision was intended to apply to general academic courses such as English, biology, history, government, math and other such courses intended for transfer among Texas public institutions of higher education and may not apply to occupational or technical courses which often vary greatly in content.

Transfer to Another Institution

Courses taken at Odessa College normally transfer to all other accredited institutions at face value. Grades earned at one college cannot be lowered by another college or university. However, courses taken that are not required for graduation at the senior college or university will not apply and therefore should not be taken at this institution. Before registering, students should contact a counselor or advisor at Odessa College for maximum assistance in planning a program.

Senior colleges vary in their recognition of a grade of "D" in a course. Some senior institutions accept a grade of "D" if the student's overall average is "C" or better. Certain senior colleges may require that the student repeat any course in which a "D" has been made.

When enrolling at Odessa College, or before if possible, students should select the senior institution to which they want to transfer after leaving Odessa College. They should become familiar with transfer requirements by contacting the senior institution and then design a suitable course of study to follow while at Odessa College. Counselors and advisors will assist.

Generally speaking, senior institutions will not accept more than 66 semester credit hours in transfer. Students should avoid exceeding this number of hours. Senior colleges vary greatly in their practice regarding allowance of credit for courses pursued at junior or community colleges.

When students at Odessa College transfer to another institution, no transcripts will be released until all records at Odessa College have been cleared.

If another Texas public institution of higher education does not accept lower division, academic course credit earned by a student at Odessa College, that institution is obligated by the Texas Higher Education Coordinating Board to give written notice to the student and Odessa College that the transfer of the academic course credit is denied. The two institutions and the student shall attempt to resolve the transfer of the academic course credit in accordance with Texas Higher Education Coordinating Board rules and/or guidelines. If the transfer dispute is not resolved to the satisfaction of the student or Odessa College within 45 days after the date the student received written notice of the denial, the party or parties who is/are not satisfied shall notify the Commissioner of Higher Education or the commissioner's designee who shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions. Students should be aware that this provision was intended to apply to general academic courses such as English, biology, history, government, math and other such courses intended for transfer among Texas public institutions of high education and may not apply to occupational or technical courses which often vary greatly in content.

Technical Programs

Odessa College offers a wide variety of technical programs designed to enable a student to enter his chosen career field as a skilled employee after one or two years of college work.

These programs were established only after studies verified that employment opportunities will exist at the time students complete the program. The community's manpower requirements are matched with the ambitions and goals of the student. This realistic approach to technical education is

made possible by the excellent cooperation of local industry, businesses and public agencies that look to the community colleges for skilled personnel.

Odessa College maintains continuous liaison with prospective employers to assist in placement of graduates and to keep programs up-to-date with current job requirements. Essential occupational skills are taught in these classes by faculty who have years of working experience, as well as appropriate academic credentials.

Based on community studies that identify additional occupational needs that can be met by Odessa College, recommendations for adding new programs to the college offerings will be made periodically.

Technical courses carry college credit leading to an Associate in Applied Science degree, a Certificate of Technology or a Certificate of Completion.

Tech-Prep Program

Odessa College is an active participant in Tech-Prep activities at the national, state and local levels. Designed primarily to insure that high school students are prepared to meet the challenges of today's technology in the work environment, Tech-Prep programs offer students the work place skills and technical training to place them into good jobs in their selected field or to go on to additional education.

Local public schools and Odessa College work closely together in Tech-Prep programs to be sure that students are prepared for high level classes and to be certain that students do not have to repeat work they have mastered in high school when they enter college. OC awards college credit to Tech-Prep students for courses (approved in each program) they have taken in high school.

Approved Tech-Prep programs are available in the following areas: Law Enforcement, Nursing and Office Systems Technology. Other programs are being developed. Students who are interested in Tech-Prep programs should contact their high school counselor or a counselor at Odessa College for more information.

Articulation

An articulation agreement between Odessa College and the Ector County Independent School District provides the opportunity for advanced placement in Odessa College for Ector County Independent School District students enrolled in technical programs offered at Odessa College.

This agreement permits students to move directly into advanced courses upon presentation of evidence of skill mastery determined by appropriate documentation.

Information regarding the articulation policy can be obtained from the Odessa College Admissions Office, Odessa College counselors or Ector County Independent School District high school counselors.

Developmental Studies

Many students enter Odessa College lacking some of the basic skills necessary for college level reading, writing and mathematics. The Developmental Studies Program offers courses and activities designed to help students overcome such deficiencies.

To discover the level of his or her abilities, the student may go the Testing Center where diagnostic and placement tests are used to identify which basic skills the student needs to acquire and determine which courses he or she needs to take.

Developmental Studies courses and activities are available in basic English, basic mathematics, reading and study skills improvement. All courses listed in this program grant from one to three credit hours, but these credit hours do not satisfy the requirements of any degree plan at Odessa College, nor will they transfer to another college or university.

In addition to the courses offered, the program maintains a Tutoring Center where any student can receive assistance with course work or skill development from either a more advanced fellow student or an instructor. The student who needs help with coursework or study skills should come to the center and request assistance at any time it is open. The Tutoring Center is located in the Electronics Technology Building, Room 120.

Evening Classes

Evening classes represent an extension of curricula offered during the day and are an integral part of the total educational program. Primarily, evening courses accommodate those individuals of the community who want to carry less than a full college course load because they are employed full-time during the day. A wide variety of courses is offered for those individuals who want to broaden their educational backgrounds.

Students may complete requirements for an associate's degree or certificate plan in most programs during evening hours, although the length of time to complete the programs may be longer than suggested for full-time day students.

Summer Session

The summer session consists of two terms of 5-1/2 weeks each, although some programs may have courses that are shorter or longer, depending upon the need. Classes are held Monday through Thursday, both during day and evening hours. Students may enroll in as many as seven semester hours in each 5-1/2 week session. Credit earned in a course is equivalent to that offered in the same course during a regular semester. Information regarding the summer session can be obtained from the Counseling Center of Odessa College.

Midwinter Session

Odessa College offers a special short-term session to accommodate students who want to complete a course during the interim period between regularly-scheduled semesters. A midwinter interim session is held following the end of the fall semester and prior to the beginning of the spring semester. Students may complete a two or three semester hour course during this special session.

Radio and Television Stations

Odessa College owns and operates both a public FM radio station and a public television station. KOCV-FM, 91.3, has been on the air since 1963 and serves not only as an alternative listening source for area residents but also is used to train students in the radio field. Since 1989 KOCV-FM has been affiliated with the Nation Public Radio network. KOCV-TV, Channel 36, is the public television station for the Permian Basin and has been on the air since March 1986.

Continuing Education

Odessa College offers a wide variety of short-term, non-credit courses for members of the community who want to broaden their educational experiences but who are not interested in obtaining college credit. These courses may range from a one-day workshop to a full nine-month program, but typically their duration is shorter than the regular semester. Many professionals do obtain continuing education units (CEUs) through the program for certification and recertification requirements.

Non-credit short courses, seminars, teleconferences and workshops offer a wide range of activities intended to accommodate individuals of all ages. During the year, Odessa College will plan credit-free courses, seminars, teleconferences and workshops in cooperation with business, industry, individuals and organizations in the community. There are no entrance requirements for most continuing education courses; any individual who can profit from them may enroll. Extension classes in area cities also are offered.

Almost any course that is of public interest can be organized if enough students ask to be enrolled, provided that a competent instructor and suitable facilities are available. A schedule of adult vocational and community service courses may be obtained from the Continuing Education Office, the drive-through registration booth, or the News and Information Office.

Business Training Center

Continuing Education's Business Training Center opened in 1989 to provide customized programs and serves as a resource and referral service to the Permian Basin's business community. The center's staff designs courses for companies with specific instructional needs and uses college faculty and staff, as well as experts from the community, to conduct the sessions. The center is located on the Odessa College campus.

Business Incubator

The Odessa College Business Incubator, located at Noel Center in downtown Odessa, opened in November 1990. Designed to help small businesses in their start-up phase, the incubator is a

flexible program meant to encourage the businesses' development and the enhancement of the local economy by diversifying and broadening the business base. Small Business Administration loan counseling is also available.

In general, incubators are facilities in which a number of new and growing businesses operate under one roof with affordable rents, on-site business counseling and advisement, shared services and equipment, and access to a wide range of professional, technical and financial programs.

As businesses mature and become profitable, they move into private sector facilities that they lease or purchase on the open market. The time limit set for tenant occupancy in the OC Business Incubator is generally three years.

The mission of the OC incubator is: to stimulate creation of jobs and to help in retaining area employment opportunities by providing an environment conducive to the start up and growth of small businesses; to provide essential skills to incubator tenants to increase their potential for success; and to realize a return on the college's investment through jobs, diversification of the local economy, increased student enrollment, an expanded tax base and new opportunities for business investment.

Those interested in learning more about the OC Business Incubator are invited to call the Incubator Manager at 333-7409 or come by 619 N. Grant Avenue for a tour.

Community Recreation

Odessa College has developed a community recreation program designed to serve all area citizens, from children through senior citizens. Participants are categorized by age groups. The program includes special classes in tennis, gymnastics, exercise, aerobics, dance and jogging. The college also conducts a series of summer camp programs.

Adult Basic Education

Odessa College offers basic education classes for adults who have not completed high school. Classes range from level one instruction to teach adults to read and write to classes that prepare adults to successfully complete the state-administered high school equivalency General Education Development (GED) test. Classes are free, and textbooks are provided. During a typical school year, enrollment in Adult Basic Education classes averages 2,500 students.

The five major subject areas are math, English, social studies, natural science and writing (literature and the arts). Life skills and functional skills relating to careers and personal development also are available. Morning, afternoon and evening classes are available at the Noel Adult Learning Center, 619 N. Grant Ave.; and afternoon and evening classes are available at numerous sites in Odessa. Adult Basic Education classes are sponsored not only in Ector County but also in Andrews, Brewster, Culberson, Jeff Davis, Pecos, Presidio, Reeves, Terrell, Ward and Winkler counties.

Classes for literacy, preparation for the U.S. citizenship exam and English as a Second Language are available. Classes are self-paced, and instruction is directed toward individual needs. Odessa College has computer-assisted instruction for all levels and subjects taught at Noel Center and at the Fort Stockton, Pecos and Andrews learning centers.

In addition to GED test preparation classes, Odessa College also sponsors a competency-based program in cooperation with the Ector County Independent School District to allow adults with less than a high school education the opportunity to earn a high school diploma. These students must be at least 19 years of age, officially withdrawn from public school and need no more than three credits for graduation.

Assessment, counseling and orientation sessions are scheduled to begin at three-week intervals. The official GED pre-test is administered Tuesday through Thursday at no charge to adults to determine if they are prepared to successfully complete the GED test or if they would benefit from classes.

For more information on class locations and times, call the Adult Basic Education Office at Noel Center, 619 N. Grant Ave., 332-9477.

Extension Centers

The Regional Extension Center at Pyote (RECAP) provides night classes leading to an associate's degree in certain areas through part-time study. Registration is held in Pyote prior to registration on the main campus. Announcement of dates and times will be made through the Student Services Office at Odessa College. Area newspapers usually carry notices of registration dates and times, as well as a list of courses to be offered.

Odessa College also offers many regular classes at extension sites located in Andrews, Crane, Kermit, Pecos, Pyote, Seminole, Wink and other sites, as well as at Odessa High and Permian High schools. Registration is conducted in each city during the week prior to registration on campus.

Information about extension centers can be obtained from the Director of Off-Campus Programs at 335-6661.

Accreditation

Odessa College is accredited by the Southern Association of Colleges and Schools. Prospective students and interested parties who wish to view the accreditation documents and/ or the institutional self-study may inquire at the circulation desk of the Murry H. Fly Learning Resources Center (LRC) where a copy is available for reference.

The number of agencies and associations that have given accreditation and membership privileges to Odessa College acknowledges the quality of education provided. The college is approved or accredited by the following professional organizations and agencies:

American Red Cross
American Heart Association - Advanced Cardiac Life Support Training Center
American Nurse Credentialing Center - Commission on Accreditation
Association of Texas Colleges and Universities
Commission on Accreditation for Physical Therapy Education
Committee on Allied Health Education and Accreditation of the American Medical Association
Council on Medical Education of American Medical Association
Federal Aviation Administration
National Association of Schools of Music
National Council on Student Development
National League for Nursing
Radiologic Technology Association of America
Southern Association of Colleges and Schools
Texas Board of Private Investigators and Private Security Officers
Texas Education Agency
Texas Commission on Fire Protection Personnel Standards and Education
Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE)
Texas Department of Health Professional Licensing and Certification Program - Nurse Aide Registry Program
Texas Department of Health Medication Administration Permit Program
Texas Higher Education Coordinating Board, Community Colleges and Technical Institutes Division
Texas State Board of Examiners of Professional Counselors

Regulations Subject to Change

Information and regulations printed in this catalog are subject to change. The Board of Trustees and the administrative staff may revise programs, courses, tuition, fees or any other information stated in this publication. Anyone having questions regarding such information and changes thereto should check with the appropriate office, department or division for current information.

More Information

For more information about Odessa College, its admission procedures, instructional programs and counseling services contact the Counseling Center in Room 204 of the Student Union Building.

Prospective students interested in enrolling at Odessa College should send their application and transcripts to Director of Admissions, Odessa College, 201 West University, Odessa, Texas 79764.

Odessa College is a member of the following organizations:

American Association of Collegiate Registrars and Admissions Officers
American Association of Community and Junior Colleges
American Association of University Administrators
American Library Association
American Public Radio (APR)
Associate Degree Council of Agency Members Associated Press
Association of College Unions International
Association of Community College Trustees
Association of Texas Colleges and Universities
Association of Texas Junior College Board Members and Administrators
Board of Nurse Examiners for the State of Texas
Board of Vocational Nurse Examiners
College Placement Council
Council for the Advancement and Support of Education
Great Plains Regional Honors Council
Health Science Consortium
National Association for Foreign Student Affairs
National Association of College and University Business Officers
National Association of Collegiate Directors of Athletics
National Association of Student Financial Aid Administrators
National Association of Vocational-Technical Education Communicators
National Collegiate Honors Council
National Council for Marketing and Public Relations
National Entertainment and Campus Activities Association
National Junior College Athletic Association
National League for Nursing
National Restaurant Association
National Rifle Association
National Public Radio (NPR)
Permian Basin Advertising Federation
Permian Basin District Firefighters Association
Public Broadcasting Service (PBS)
Regional Education Board of the Council on Collegiate Education for Nursing
Rocky Mountain College Press Association
Southern Association of College and University Business Officers
Southern Association of Collegiate Registrars and Admissions Officers
Southern Association of Junior Colleges
Southern Educational Communications Association
Texas Administrators of Continuing Education/Community and Junior Colleges
Texas Association of Alcoholism and Drug Abuse Counselors
Texas Association of Collegiate Registrars and Admissions Office
Texas Association of Community Service and Continuing Education
Texas Association of Intercollegiate Athletics for Women
Texas Association of Junior Colleges
Texas Association of Music Schools
Texas Association of Public Junior Colleges
Texas Association of Public Junior College Business Officers
Texas Association of Schools of Art
Texas Chef's Association
Texas Consortium for Educational Telecommunications
Texas Department of Health
Texas School Food Service Association
Texas State Firemen's and Fire Marshals' Association
Texas Restaurant Association
Texas Junior College Teachers Association
Texas Music Educators Association
Texas Public Broadcasting Association
Video Tape Network
Western Junior College Athletic Conference

Degree/Certificate Planning and Applying for Degree/Certificate

Students working toward a degree or certificate from Odessa College should consult a counselor or faculty advisor early in their academic career to ensure that all required courses are being completed. Students should complete written degree/certificate plans well in advance of anticipated graduation with the assistance of the appropriate department chair, division dean or with an Odessa College counselor. The student will file a written, signed copy of the plan with the Registrar's Office.

Catalog Applicability

Students may graduate under the catalog that was in effect at the time they first entered Odessa College so long as no more than seven years have elapsed since their initial registration. If the time limit has passed and students still wish to be certified on the basis of the requirements of the catalog under which they first entered, they must petition for such certification to the appropriate department chair.

Graduating students also have the option of graduating under the catalog in effect at the time of completion. The decision as to which catalog will apply for graduation should be made only after consultation with the appropriate academic advisor.

Second Degrees

Students who have earned a degree at Odessa College may apply for a second degree after all stated degree requirements for the second degree have been completed, including a minimum of 15 semester hours taken in residence at Odessa College after the initial degree has been awarded.

Deadline for Degree and Certificate Applications

Students must complete a degree or certificate application within 12 months after completion of their degree or certificate requirements. Applications received after the designated time limit will be reviewed and evaluated by the Director of Admissions and Registrar.

Degree Requirements

Residency Requirements: Associate's Degree

To receive an Associate's Degree, a student must meet one of the following residency options:

Option 1: Complete a minimum of 48 semester credit hours at Odessa College; and, if the degree is in a technical or vocational program, complete at least 12 semester h ours in the major field at Odessa College.

Option 2: Complete a minimum of 15 semester credit hours at Odessa College, at least 12 of which must be the last hours taken before the degree is granted; and, if the degree is in a technical or vocational program, complete at least 12 semester hours in the major field at Odessa College.

Residency Requirements: Certificates of Technology or Certificates of Completion

To receive a Certificate of Technology or a Certificate of Completion, a student must meet the following residency requirements:

A minimum of 60 percent of the total certificate requirements must have been completed in residence at Odessa College; also, a minimum of 60 percent of the technical and/or vocational program courses required for the certificate must have been completed in residence at Odessa College.

Residency Requirements: Award of Institutional Recognition

An Award of Institutional Recognition that consist of less than 15 semester credit hours may be given in certain technical or vocational programs. To be eligible to receive an Award of Institutional Recognition, the student must complete all courses required for that Award of Recognition in residence at Odessa College.

Associate in Arts Degree

To qualify for the Associate in Arts Degree (A.A.), students must complete the following requirements:

- **English:** ENGL 1301 and ENGL 1302 and six hours of sophomore English
- **Speech:** Three semester hours
- **Foreign Language or Mathematics or Science:** One year (six to eight semester hours in same discipline)
- **Government:** GOVT 2301 and 2302
- **History:** HIST 1301 and 1302 (HIST 2301 may be substituted for either course)
- **Physical Education:** Two one-hour activity classes*
- **Elective outside the major area:** A three semester hour minimum
- A minimum of 63 semester hours.
- A minimum average of "C" (2.0) in all work. Transfer students must also have an average of "C" (2.0) in all work taken at Odessa College.
- A minimum of 15 semester hours of sophomore courses, six semester hours of which must be in the same discipline.
- Either (1) a minimum of 48 semester hours completed at Odessa College or (2) a minimum of 15 semester hours with at least 12 semester hours completed immediately prior to the granting of the degree.
- Students who are not exempt from the provisions of TASP must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Veterans who have two years active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.

Associate in Science Degree

To qualify for the Associate in Science degree (A.S.), students must complete the following requirements:

- **English:** ENGL 1301 and 1302 and three hours of sophomore English
- **Speech:** Three semester hours
- **Government:** GOVT 2301 and 2302
- **History:** 1301 and 1302 (HIST 2301 may be substituted for either course)
- **Mathematics:** One year (six semester hours)
- **Physical Education:** Two one-hour activity classes*
- **Science:** A minimum of 12 semester hours
- **Elective outside the major area:** A three semester hour minimum
- A minimum of 63 semester hours.
- A minimum average of "C" (2.0) in all work. Transfer students must also have an average of "C" (2.0) in all work taken at Odessa College.
- A minimum of 15 semester hours of sophomore courses, six semester hours of which must be in the same discipline.
- Either (1) a minimum of 48 semester hours completed at Odessa College or (2) a minimum of 15 semester hours with at least 12 semester hours completed immediately prior to the granting of the degree.
- Students who are not exempt from the provisions of TASP must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Veterans who have two years active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.

Associate in Applied Science Degree

To qualify for the Associate in Applied Science Degree (A.A.S.), students must complete the following requirements:

- **English and Speech:** Six semester hours as specified in each program
- **Government:** Three semester hours as specified in each program
- **Mathematics:** Three semester hours as specified in each program
- **Physical Education:** Two one-hour activity classes*
- **Science:** As specified in each program
- **Major concentration and electives** As specified in each program
- A minimum of 63 semester hours.
- A minimum average of "C" (2.0) in all work. Transfer students must also have an average of "C" (2.0) in all work taken at Odessa College.
- A minimum of 15 semester hours of sophomore courses, six semester hours of which must be in the same discipline.
- Either (1) a minimum of 48 semester hours completed at Odessa College or

(2) a minimum of 15 semester hours with at least 12 semester hours completed immediately prior to the granting of the degree.

- A minimum of 12 semester hours in the major field must be completed at Odessa College.
- A minimum of 60 percent of both technical or vocational program requirements and 60 percent of the total certificate requirements must be completed at Odessa College.
- Students who are not exempt from the provisions of TASP must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Veterans who have two years active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.

Certificates of Technology

Certificates of Technology are awarded for completion of program requirements with a minimum average of "C" (2.0) in all work in certain occupational and technical curricula as prescribed in the Odessa College catalog or as approved by the respective division dean.

- A minimum of 60 percent of the technical and vocational program course requirements and 60 percent of the total certificate requirements must be completed at Odessa College.
- Students who are not exempt from the provisions of TASP must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Veterans who have two years active service credit may satisfy PHED requirement, if any, by submitting a copy of Form DD-214 to the Registrar's Office.

Certificates of Completion

Certificates of Completion are awarded for completion of program requirements with a minimum average of "C" (2.0) in all work in certain occupational and technical curricula that concentrate on a specific job skill, licensure requirement or subject matter mastery as prescribed in the Odessa College catalog or as approved by the respective division dean.

Check with the respective program or department chair for information on these certificates.

- A minimum of 60 percent of the technical and vocational program course requirements and 60 percent of the total certificate requirements must be completed at Odessa College.
- Students who are not exempt from the provisions of TASP must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Veterans who have two years active service credit may satisfy PHED requirement, if any, by submitting a copy of Form DD-214 to the registrar's office.

Institutional Recognition

Awards of Institutional Recognition that consist of 15 or fewer semester credit hours may be given in certain technical or vocational programs. To be eligible for an Institutional Award of Recognition the student must complete all courses required for that Award at Odessa College

Regional Extension Center at Pyote

Courses offered at the Regional Extension Center at Pyote are designed to meet associate's degree requirements at Odessa College. One of the options for the Pyote center is an Associate of Arts Degree for students completing the following courses:

Course and Number	**Semester Hours**
ENGL 1301, 1302 and two sophomore-level courses	12
GOVT 2301, 2302	6
HIST 1301, 1302	6
*PHED (any two one-hour activity courses)	2
BIOL or GEOL (any two sequential laboratory courses)	8
MATH 1314 or more advanced	3
PSYC 2301	3
SOCI 1301	3
Major Concentration and/or Electives BUSI 1301, BUSI 2301, ACCT 2401, ACCT 2402, SPCH 1311, 1321, SOCI 1306, 2301, 2326, ECON 2301, 2302	20
Total Hours	63

**Veterans who have two years active service credit may satisfy the PE requirement by submitting a copy of Form DD-214 to the registrar's office.*

STUDENT SERVICES

Student Development

Odessa College encourages the growth and awareness of self and others through a comprehensive Student Development Program. The college tries to create a climate which will allow all its students an opportunity to enhance their perception of worth, while increasing their ability to cope within a changing society. The college hopes to provide all students an opportunity to examine thoroughly their potential and to offer opportunities for realizing that potential through the learning experiences offered by the college.

Counseling Center

The Counseling Center exists to help students make decisions and solve problems. Some of the services available to students are academic advisement, admissions/transfer information, crisis intervention, individual or group counseling and vocational guidance.

Assistance is free and confidential. Any problem or concern that interferes with the attainment of academic, vocational or personal goals can be discussed with a counselor of the student's choice. Students who have visited the Counseling Center have received help in clarifying educational and personal goals, selecting careers and college courses, reducing stress and worry, improving family and other relationships and improving communications and decision-making skills.

Counseling at Odessa College includes many programs designed to promote the success and well-being of students. The staff also welcomes requests for help or information from community members.

The center is located in Room 204 of the Student Union Building. Students may drop by or schedule an appointment to see a counselor. Periodically, special activities, programs and structured group experiences will be offered as well.

Testing Center

The Testing Center is in Room 220 of the Student Union Building. Ability, career interest and interpersonal tests are offered to students who wish to achieve greater self awareness or identify strengths for the purpose of decision-making. The GED (General Education Development) test is administered on a regular basis to individuals who want to demonstrate mastery of high school subjects. Other national group tests, such as the Medical College Admission Test, are offered as a service to the community. Entrance examinations for special programs, including nursing and law enforcement academy, are scheduled. The ASSET placement test is administered during registration periods and monthly for students enrolling in math or English. Testing and assessment services can be organized for individuals or groups who need specific guidance data. Contact the Director of Testing at 335-6620 for additional information, test dates or an individual appointment.

Career Services Center

The Odessa College Career Services Center is located in Room 205 of the Student Union Building. Several career-related services are available for any student enrolled in credit-hour courses of the college. Instruction in and assistance with interview skill development, resume writing and off-campus employment is available. Referral is made to other Student Development offices for assistance in obtaining occupational information, career counseling and degree planning.

Students with marketable skills are encouraged to register with the skills bank in the Career Services Center. The skills bank can provide local and area employers with information concerning skills and talents possessed by Odessa College students.

Another service available through the Career Services Center is a current listing of jobs available from the local office of the Texas Employment Commission. This list is updated several times each week.

Student Housing

Odessa College currently provides housing only for athletes on scholarship. Such housing is assigned by the athletic department. Information regarding the availability of housing can be obtained by calling or writing the office of the Dean of Student Services.

Student Food Service

The Student Union Cafeteria at Odessa College serves short orders as well as balanced meals. Meal tickets are available at discounted rates. A variety of restaurants are also available within walking distance of the college.

Campus Parking

Parking permits are available in the Business Office from 8 a.m. to 7:30 p.m., Monday through Thursday, and from 8 a.m. to 12 noon and 1 to 5 p.m. Friday, during the fall and spring terms. Summer hours, limited to Monday through Thursday, will be announced.

A permit is required for each vehicle (including motorcycles and mopeds) parked on campus. Extra permits are available for 50 cents each. Additional parking information can be obtained in the Business Office or in the Campus Police Office, located in Parker-Downs Hall.

Security

The Odessa College Campus Police Office, located in Parker-Downs Hall, serves the student body of the college by helping to maintain the safety and security of all students and their possessions while they are on campus. Campus police personnel are available to assist students and visitors with problems, such as vehicles with dead batteries and cars with keys locked inside. Police officers are available on a 24-hour basis for emergencies on campus.

Disabled Students

In accordance with federal laws and regulations, Odessa College does not discriminate on the basis of disability in the recruitment and admission of students, the employment of faculty and staff and the operation of any of its programs and activities. The Dean of Student Services is designated coordinator for college compliance with Section 504 of Rehabilitation Act of 1973 and with the Americans with Disabilities Act of 1990.

Disabled students should contact the Odessa College Counseling Center or the Dean of Student Services for information regarding services available.

The college strives to provide a complete range of services for students with special needs such as class arrangement, tutoring, personal counseling, health services and reserved parking.

Health Services

Health Services, a student-oriented program of preventive medicine and health education, is located in Room 107 of the Student Union Building. The director, a registered nurse, provides emergency medical care, preventive health education and a referral system for community agencies. Throughout the year, specialized programs are offered at a minimal or no cost to students, faculty or staff. TB skin tests, diphtheria-tetanus and rubella immunizations and other tests are available. Student insurance information also is available.

Health Services seeks to establish sound health practices that will enhance students' growth and development not only while they are at Odessa College but also after they leave the institution.

Children's Center

The Odessa College Children's Center opened in the fall of 1976 with 14 children enrolled. The center now provides daytime care for some 50 to 60 children of community residents. The center accepts children from birth to six years. It is open year round from 7:30 a.m. to 5:30 p.m. Monday through Friday, except on regular college holidays. While providing a child care service for the community, the Children's Center also serves as a learning laboratory for students in the Odessa College Child Development Program and in child psychology classes.

Student Activities

The college maintains the philosophy that classroom learning is only one part of its students' education. Almost all students feel some need to learn more about themselves. The opportunity for them to grow as individuals is made possible through social and personal experiences, as well as through academic pursuits. Student activities contribute to personal development through educational and social programming and through student organizations.

The interactions of students with each other and with the faculty on an informal basis can provide insights and understanding for students about their society and can enrich the quality of their lives. Information about a wide range of student extracurricular opportunities may be obtained from the Student Activities Office.

Student Activities provides a full schedule of campus-based events designed to be both educational and entertaining. These events are available to the student at no charge through the student activity fee. Information regarding specific events is available from the Student Activities Office.

Opportunities for students to participate in student activities include the following groups:

Clubs and organizations More than nine student organizations are active on campus. Many of these groups are service organizations that relate to academic pursuits, such as nursing or chemistry, while others are honorary societies or special interest groups. A list of currently active student organizations may be found in the Student Activities Office.

Student Congress The Student Congress at Odessa College is the voice of the students. It plays an important role in influencing the directions of the college on many issues, in addition to sponsoring projects for the welfare of the student body. Students may use the Student Congress to express opinions about the operation of the college based on their individual needs. Students enrolled at Odessa College are encouraged to run for office as well as to vote for the congressmen. Requirements for congressional positions and campaigning are outlined in the student handbook.

Student Intramurals and game room A well-planned program of intramural activities is offered each semester at Odessa College. Information regarding the intramural schedule can be obtained from the Intramural Office, located in Room 204 of the Sports Center. A game room for student use is located on the second floor of the Student Union Building, where numerous games are available. Ping-pong, cards, backgammon, checkers and chess are popular choices.

Forensics Odessa College forensics teams enjoy a national reputation. During the past 15 years, the forensics teams have placed among the top 10 in national tournaments. In four of those years, the college debate teams have won the National Junior College Forensics tournament. The forensics team travels nationally and competes successfully with teams on the senior college and university level.

Choir and Band Odessa College's A Cappella Choir and Madrigal Singers have gained international recognition for their musical abilities. The college also has an active jazz band that performs regularly on campus and in the community. Annually, the jazz band participates in international festivals that are usually held in major Mexican cities such as Mexico City, Acapulco and Guadalajara. The department of music also sponsors a community band as well as a community choir for area citizens who maintain an interest in performing.

Campus radio station KOCV-FM, the college-owned and operated radio station, is an educational, non-commercial station. Radio programs are designed and hosted by students, and the station is operated by students, under the supervision of a professionally trained and experienced instructor. KOCV-FM began broadcasting National
Public Radio programs in February 1989.

Campus television station KOCV-TV, like KOCV-FM, is college-owned and operated. Student-produced programs are supervised by a professionally experienced and academically-trained instructor. Student programming also is carried on Channel 10 of the local cable television company.

Art Shows A function of the Art Department is to provide students with the opportunity to exhibit their own work and to see work of professional artists each year through student and traveling art exhibits.

Athletics

Odessa College athletic teams hold 42 national titles. The institution has earned a national reputation for its outstanding athletic programs. More than 500 athletes from Odessa College have won National Junior College All-American honors. Currently, the athletic program includes teams in women's basketball, track and rodeo. Men's teams compete in baseball, basketball, golf, track and rodeo.

The Wranglers are members of the National Junior College Athletic Association and the Western Junior College Athletic Conference. Each sport has a full schedule, and the athletic teams compete in national tournaments (NJCAA) every year. Some of the honors and titles won by Odessa College athletic teams include:

Men's Basketball: The Wranglers have had an active basketball program since 1952. The cagers were runners-up in the Region V Tournament in 1958, and co-champions in the Western Junior College Athletic Conference in 1979, WJCAC champions in 1989 and Region V champions in 1988, 1989, and 1990. The 1989-1990 team finished eighth at the national junior college tournament. Three players have been designated All-American.

Women's Basketball: The Lady Wranglers have won the conference championship six times 1979-80, 1983-84, 1984-85, 1985-86, 1988-89 and 1990-91; the regional championship five times 1979-80, 1984-85, 1985-86, 1988-89 and 1990-91. They finished second in the 1985 national tournament and won the NJCAA National Championship in 1986 and 1991. They have produced 16 All-Americans, more than 50 All-Conference players and 38 All-Region players. For 16 consecutive years, they have been nationally ranked. Four times they were ranked No. 1 in the nation. From 1984-86, the Lady Wranglers recorded 79 regular season games without a loss. The Lady Wranglers' coach has received numerous honors, including being named the Converse Coach of the Year for 1984-1985 and the NJCAA Coach of the Year in 1986 and 1991.

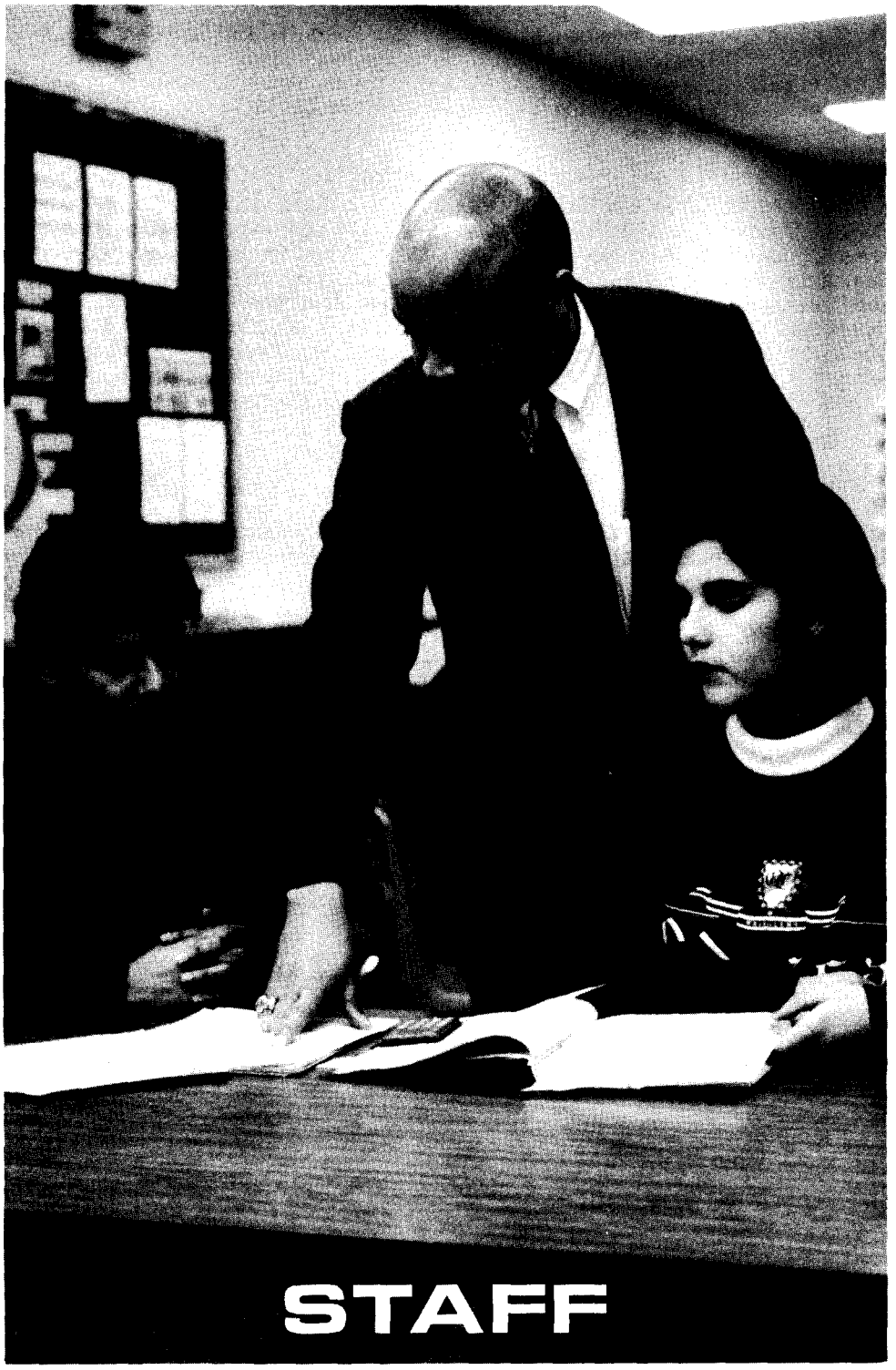
Golf: In 1959, Odessa College hosted the first National Junior College Golf Championship. Odessa College won the national title in 1959, 1960, 1961, 1962, 1963 and 1965. The Wranglers have captured the Western Junior College Athletic Conference title 17 times and have had 33 All-Americans in golf. Again in 1979 and 1987, Odessa College hosted the NJCAA National Championship tournament. In 1991 the team finished eighth in the national tournament. OC won regional championships in 1988 and 1990 and the conference championship in 1989.

Rodeo: For the first two years, OC had only a men's team; in 1986, a women's team was added. Members of the men's teams qualified for the college national finals in 1985, 1986, 1987, 1989, 1990 and 1991. The men's teams have won 11 regional event titles, two regional team championships, eight national event titles and the national team championship in 1989. Members of the men's team brought home a first place in national competition in bull riding in 1986 and first place in calf roping in 1989 and 1990. Odessa College is recognized as a power rodeo school in the Southwest Region of the National Intercollegiate Rodeo Association, a region which has 22 competing universities and colleges.

Men's Track: Odessa College track teams have won more than 60 championships. In 1971, the track team placed second at the National Junior College Championship and won third in 1975. In 1979, the tracksters won the conference, regional and state track championships. In 1980, they placed third at both the National Junior College outdoor and indoor meets. In 1981, 1982, 1983, 1984 and 1985, the Odessa College track team won back-to-back National Junior College outdoor and indoor championships. Since 1965, more than 300 members of the Odessa College track teams have been named All-American by the National Junior College Athletic Association.

Women's Track: In 1989, a women's track team was added to the OC athletic program and the team won the NJCAA national championship its first year out. The 1990-91 team finished third at the NJCAA national indoor meet and fourth at the NJCAA national outdoor meet.

Men's Baseball: Odessa College began competing in baseball in 1990-91 for the first time since 1969. The team advanced to the state tournament its first year and was both conference and Region V champion in 1991-92. The team has competed in two district tournaments. It had 12 players either drafted or signed to professional contracts in its first two years. The team's two year record was 86-42, the best two-year start for a new program for the NJCAA. The baseball team had the school's first All-American in baseball in 1992.



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Ken Hefner, B.A. ..... Women's Basketball Coach
Dennis Helms, A.A., B.S., ... M.Ed. Men's Basketball Coach
Kyle Howard, B.S. ..... Golf Coach
Herbert Que McMaster, B.S. ..... Intramural Director and Track Coach
Kristi Munoz, B.A. ..... Men's Basketball Academic Advisor
Orlando Ontiveroz, B.S. ..... Assistant Men's Basketball Coach
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Jim Watkins, B.S. ..... Rodeo Coach
Rick Zimmerman, M.S. ..... Baseball Coach

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Tom Hughes, B.A. ..... Television Station Manager
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Assistant Professor of Nursing, A.A.S., Arkansas State University; B.S.N., University of Texas at Arlington; M.S., Texas Woman's University

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Reading Paraprofessional, B.A., University of Texas at El Paso

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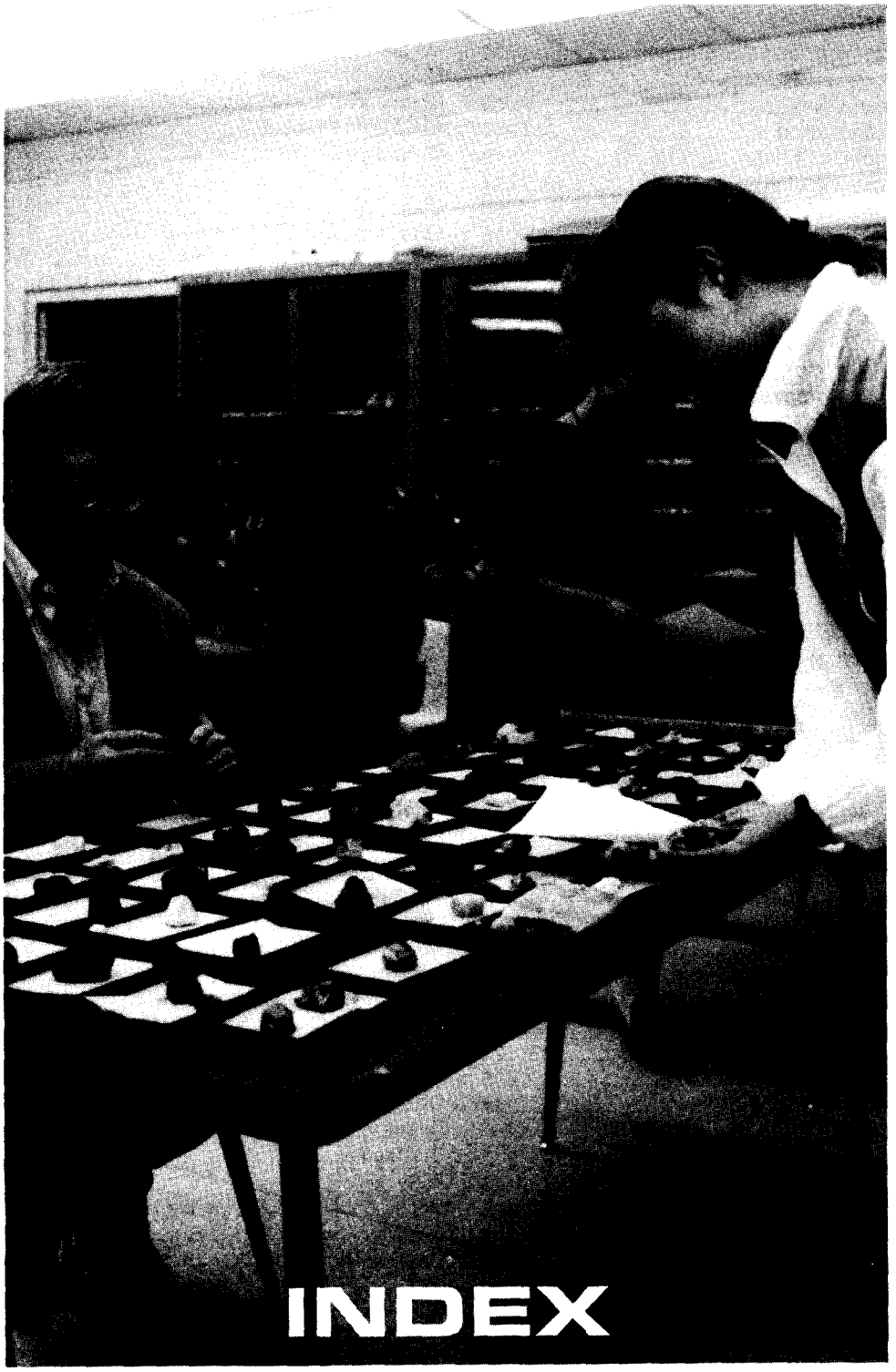
Instructor of Speech, B.A., Eastern New Mexico University; M.A., Texas Tech University

Anna F. Winn
Professor of Nursing, R.N., B.S., University of Houston; M.S., University of Colorado; Ed.D., Nova University

Kenneth D. Yeilding
Professor of History and Government, B.S., Hardin-Simmons University; M.A., University of Texas at El Paso; Ph.D., Texas Tech University

Rick Zimmerman
Instructor of Physical Education and Baseball Coach, B.S., M.S., Fort Hays, Kansas State College



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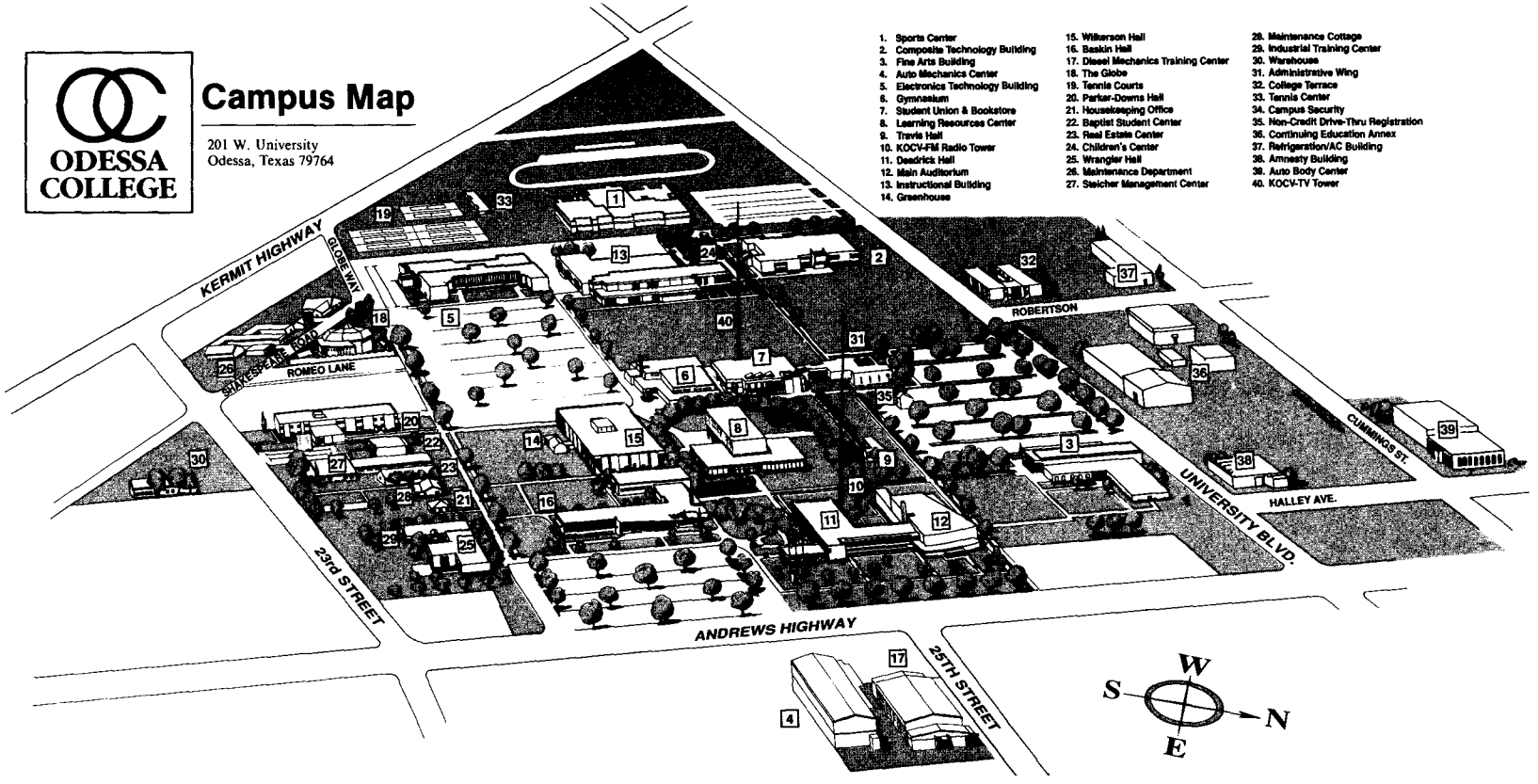
ODESSA COLLEGE

Campus Map

201 W. University
Odessa, Texas 79764



1. Sports Center
2. Composite Technology Building
3. Fine Arts Building
4. Auto Mechanics Center
5. Electronics Technology Building
6. Gymnasium
7. Student Union & Bookstore
8. Learning Resources Center
9. Travis Hall
10. KOCV-FM Radio Tower
11. Deadrick Hall
12. Main Auditorium
13. Instructional Building
14. Greenhouse
15. Wilkerson Hall
16. Baskin Hall
17. Diesel Mechanics Training Center
18. The Globe
19. Tennis Courts
20. Parker-Downs Hall
21. Housekeeping Office
22. Baptist Student Center
23. Real Estate Center
24. Children's Center
25. Wrangler Hall
26. Maintenance Department
27. Steicher Management Center
28. Maintenance Cottage
29. Industrial Training Center
30. Warehouse
31. Administrative Wing
32. College Terrace
33. Tennis Center
34. Campus Security
35. Non-Credit Drive-Thru Registration
36. Continuing Education Annex
37. Refrigeration/AC Building
38. Amnesty Building
39. Auto Body Center
40. KOCV-TV Tower

NOTES

APPLICATION FOR ADMISSION

ODESSA COLLEGE

Admissions Office
201 W. University
Odessa, Texas 79764

OFFICE USE ONLY
_____Res _____Classification _____VISA

PLEASE PRINT

(1) **Name** (full legal name): _____
Last First Middle Maiden

Other name(s) _____ (2) **Phone** (___)_____ (___)_____
Home Work

(3) **Social Security Number** |___|___|___| |___|___| |___|___|___|___|

(4) **Permanent Address** _____
Street or P.O. Box City County State Zip Code

How long have you lived at your permanent address? _____Years _____Months

(5) **Local Address** _____
Street or P.O. Box City County State Zip Code

(6) **List addresses last 24 months** (two years):

_____
Address City State Zip From (date) to (date)

_____
Address City State Zip From (date) to (date)

_____
Address City State Zip From (date) to (date)

(7) **Date of Birth** ___/___/___ Age_____ Place of Birth _____
Mo Day Year City and State

(8) **Sex:** ☐ M ☐ F (9) ☐ **Single** ☐ **Married**

(10) **Ethnic Background** (Requested in compliance with federal guidelines.)(Check one)

☐ (1) White - Non-Hispanic origin ☐ (2) Black - Non-Hispanic origin ☐ (3) Hispanic
☐ (4) Asian or Pacific Islander ☐ (5) American Indian or Alaskan Native

(11) **Are you a U.S. citizen?** ☐ Yes ☐ No
Permanent Resident Alien? Number _____ Place Obtained _____ Date _____
International Applicant?_____ Country of Citizenship _____ Visa Type _____

(12) **List any disabilities:** _____

(13) **High School last attended:** _____
Name of School City County State

(14) **Did you graduate from high school:** ☐ Yes ☐ No Date of Graduation:_____
Month/Year

(15) **If you did not graduate from high school, have you successfully completed the GED?** ☐ Yes ☐ No Date GED received:_____
Month/Year

(16) **Have you attended any other college or university?** ☐ Yes ☐ No.
If yes, please complete the spaces that follow, listing the most recent college or university first. List all colleges attended.
NOTE: Official transcripts from all previous colleges attended are required.

Name of College/University	Location (City, State)	Dates Attended	Degree/Certificate Received
		to	
		to	
		to	

(17) **Are you eligible at this time to return to the college or university you most recently attended?** ☐ Yes ☐ No

(18) **Expected date of enrollment:** _____Year Semester: ☐ Fall ☐ Midwinter ☐ Spring ☐ SSI ☐ SSII

(19) **Enrollment Status:** ☐ New Student ☐ Former Student If former student, when _____
Sem. Yr.

Odessa College does not discriminate against any student or employee in regard to age, sex, color, race, handicap or national origin and answers concerning this information are voluntary. Answers are not used in admissions decisions.

I certify that all answers given are complete and accurate to the best of my knowledge, and upon admission I agree to abide by all rules and regulations of Odessa College.

DO NOT WRITE IN THIS SPACE
Name: Last First Middle Maiden

TASP INFORMATION

1. All students must take the TASP test prior to completing nine hours of non-remedial coursework. Students may not enroll in non-remedial coursework beyond the ninth semester hour without having taken the TASP test. Failure to do so will result in complete withdrawal from school.

2. Students must have all TASP scores sent to Odessa College from National Evaluation Systems.

3. Students who fail any portion of the TASP test must enroll in and participate in a remedial class in at least one of the areas failed. Failure to do so will result in complete withdrawal from school.

4. Concurrent Enrollment/Early Admissions students who take the TASP test and fail any part of the test may not enroll in courses at Odessa College.

I understand the TASP state regulations regarding the credit hour limit and remediation required, if necessary, as indicated by my test scores.

I also understand the consequence of non-compliance with state TASP requirements.

Signature: _____ Date: _____

Residency Issues

1. (a) **Are you a U.S. Citizen?** ❑ Yes ❑ No

   (b) If not a citizen, do you hold Permanent Residence status for the U.S.?

   ❑ Yes ❑ No

   If yes, date permanent resident card issued: _____

   Number: _____

2. **Are you claiming Texas residence status for tuition purposes?**

   ❑ Yes ❑ No

   (IF NO, GO TO NO. 6)

   (IF NO, YOU WILL BE CHARGED OUT-OF-STATE TUITION)

   (IF YES, YOU WILL BE ELIGIBLE TO BE CONSIDERED FOR IN-STATE TUITION)

3. **Upon whom are you basing your claim of residence status?**

   ❑ Self

   ❑ Parent

   ❑ Legal Guardian (Guardianship papers must be provided)

   ❑ Active duty military based in Texas

   ❑ Dependent of active duty service member based in Texas

4. **If your claim of residence status is based upon self, answer the following questions:**

   (a) How long have you resided in Texas? _____Years and _____Months

   (b) Previous state or country of residence: _____

   (c) If you came here within the past 5 years, why did you move to Texas?

   ❑ Education ❑ Employment ❑ Other:_____

   _____

5. **If your claim for residence status is based upon parent or legal guardian, please answer the following questions:**

   (a) Name of person upon whom claim is based: _____

   (b) Relationship to self: ❑ parent ❑ legal guardian

   (c) How long has this person resided in Texas?_____Years and _____Months

   (d) Previous state or country of residence: _____

   (e) If this person came here within the past 5 years, why did this person move to Texas?

   ❑ Education ❑ Employment ❑ Other:_____

   _____

   (f) Is this person a U.S. citizen? ❑ Yes ❑ No

   (g) Has parent or legal guardian claimed you as a dependent for U.S. federal income tax purposes for the tax year preceding your registration?

   ❑ Yes ❑ No

   (h) Will this person claim you for the current tax year?

6. Oath of Residency

I understand that information submitted herein will be relied upon by college/university officials to determine my status for admission and residency eligibility. I authorize the college/university to verify the information I have provided. I agree to notify the proper officials of the institution of any changes in the information provided. I certify that the information on this application is complete and correct and understand that the submission of false information is grounds for rejection of my application, withdrawal of any offer of acceptance, cancellation of enrollment, or appropriate disciplinary action.

NOTE: If you have attended school or resided out of state, additional proof of residency may be required. Military personnel/dependents must submit a copy of ID or dependent's card and proof of military assignment in Texas at each enrollment. Permanent resident aliens and foreign students must submit copies of permits and/or visas.

_____ _____

Signature Date

NOTE: In order to change your residency classification you must submit a completed *Application for Residency Reclassification* prior to the official census day of the relevant semester.

FOR OFFICE USE

Remarks _____

_____

_____

Approved Texas resident ❑ Yes ❑ No

ODESSA COLLEGE

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Odessa, Texas 79764
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Odessa, Texas

BULLETIN