the dream begins ...

ODESSA COLLEGE

BULLETIN

CATALOG OF CREDIT COURSES

2002 – 2003

Faces of OC ...

Front cover: (l-r)

Nikie Cassoni, *OC's news writer/copywriter, is a graduate of Texas A&M – Corpus Christi. Originally from upstate New York, her love of cowboys and sunsets attracted her to Odessa. She is a passionate advocate of media literacy and enjoys the arts.*

Kristi Nealy *is OC's coordinator of student activities. Odessa native and former OC student, she graduated from Angelo State. Her spare time is spent listening to music and shopping.*

Orlando Martinez *is a freshman at Odessa College studying liberal arts. Orlando is from Odessa and graduated from Permian High School in 2002. He enjoys playing baseball and is employed as a student worker at OC.*

Kristi Crawford *is a second year OC student studying liberal arts with plans to transfer to Texas Tech in the fall. Upon completion of her education the Permian High School graduate plans to become a speech pathologist. Kristi is active in OC's Students in Philanthropy Club and enjoys playing tennis and shopping.*

Chris Aredonda *is an employee in OC's continuing education department. An Odessa High School graduate, he enjoys basketball and golf in his spare time.*

Back cover: (l-r)

Scott Vesely *is a sophomore at Odessa College and is studying physical and health education. Originally from Odessa, the Permian High graduate aspires to attend NYU or Rutgers.*

Kyle Logston *is an Odessa High School graduate and second year student at Odessa College. Kyle is a scholarship recipient partaking in general studies. An outstanding member of the OC Wranglers Rodeo Men's Team, Kyle is the 2002 regional conference champion in team roping as well as a 2002 CNFR College National Finals qualifier.*

Brittany Bradshaw *is in her second year of study at Odessa College. She is studying psychology and although she is undecided as to where she will transfer, she plans to continue her education. The Permian High School graduate enjoys golf and tennis.*

Clarence Brown *is an Odessa College athlete in his second year at OC. As a member of the Wrangler Men's Basketball Team, Clarence has earned the praise of his peers and coaches for being such a hard worker. The 6' 5" freshman wing is from Miami, Florida and is taking general studies courses at OC.*

Diane Carrasco *is a former OC student who has returned as faculty after completing her B.S. at University of Texas - Permian Basin. The Computer Information Systems instructor is from Odessa and graduated from OHS. She was recently married and enjoys reading and listening to music.*

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Information and regulations printed in this bulletin are subject to change. The Board of Trustees and the administrative staff may revise programs, courses, tuition, fees or any information stated in this bulletin.

In adopting course numbers and descriptions from The Workforce Education Course Manual as instituted by the Texas Higher Education Coordinating Board, some course numbers and descriptions will change from previous catalogs. However, other changes may occur after this catalog is published. These changes will be on record in both the Division Dean's offices and the office of the Vice President for Instruction.

Design and editing by the Odessa College Media Relations and Publications Staff.

An Equal Opportunity College
Odessa College does not discriminate on the basis of sex, race, color, national origin, religion, disability or age.

Web Site
http://www.odessa.edu

ODESSA COLLEGE

BULLETIN

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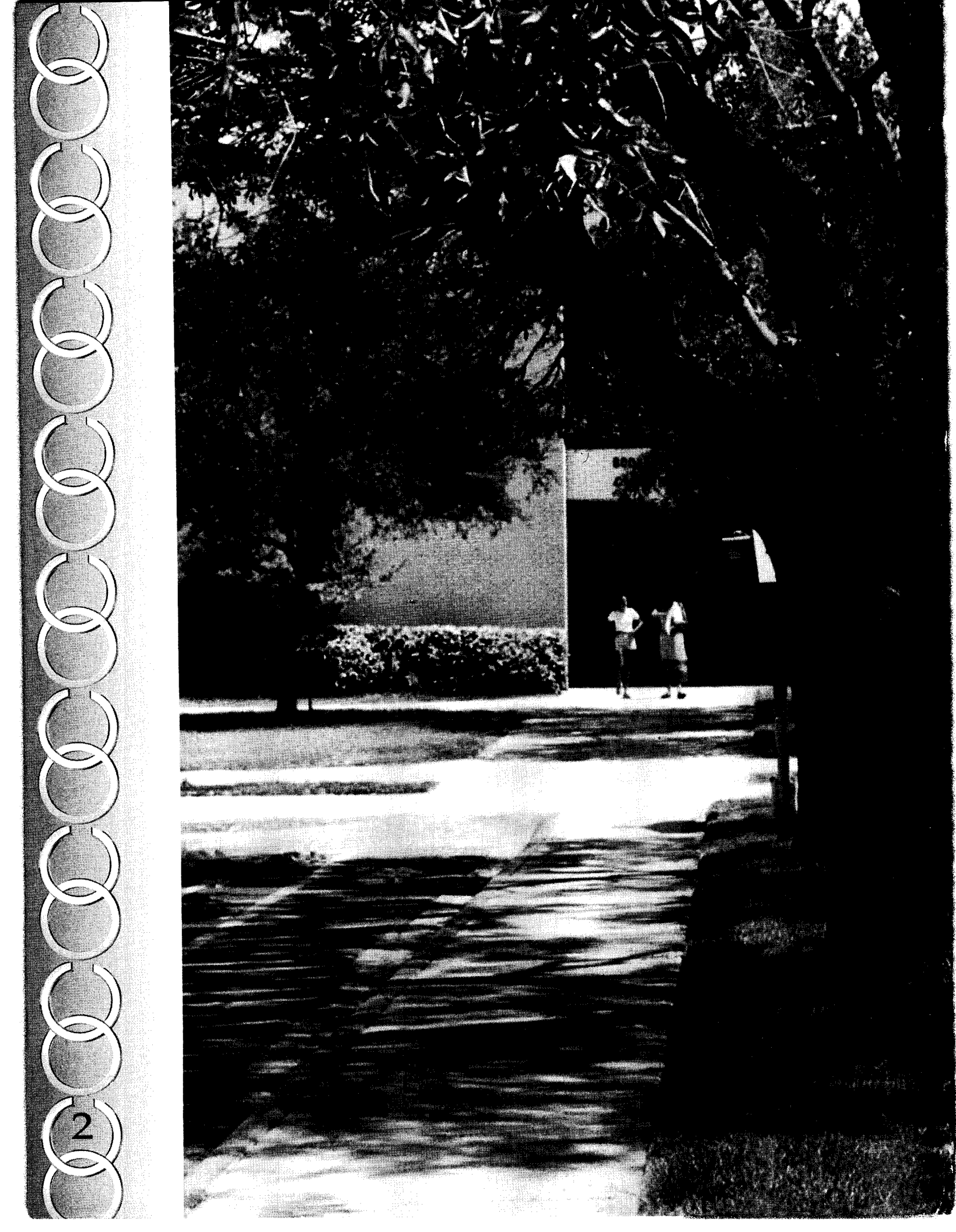

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For Advance Registration information, consult current schedule of classes.
During the summer, Odessa College operates on a four-day week and closes on Friday.

Registration ..... May 28 (Tues.)
Classes Begin ..... May 29 (Wed.)
(Classes are Wed., Thurs. & Fri. during first week; thereafter, Mon.-Thurs.)
Late Registration/Schedule Changes ..... May 29-30 (Wed.-Thurs.)
Census Date (4th class date) ..... June 3 (Mon.)
Last Day to Drop or Withdraw with a "W" ..... June 20 (Thurs.)
Last Class Day/Final Exams/End of Term ..... July 3 (Wed.)
Holiday (Independence Day – Offices Closed) ..... July 4 (Thurs.)

SUMMER II 2002

For Advance Registration information, consult current schedule of classes.
During the summer, Odessa College operates on a four-day week and closes on Friday.

Registration ..... July 8 (Mon.)
Classes Begin ..... July 9 (Tues.)
Late Registration/Schedule Changes ..... July 9-10 (Tues.-Wed.)
Census Date (4th class date) ..... July 15 (Mon.)
Last Day to Drop or Withdraw with a "W" ..... Aug. 1 (Thurs.)
Last Class Day/Final Exams/End of Term ..... Aug. 14 (Wed.)
Five-day work week begins ..... Aug. 19 (Mon.)

FALL 2002

For Advance Registration information, consult current schedule of classes.

Nine Month Faculty Return ..... Aug. 20 (Tues.)
Welcome Back Meeting for Faculty and Staff ..... Aug. 20 (Tues.)
Registration ..... 8:30 a.m.-7 p.m. ..... Aug. 21 (Wed.)
8:30 a.m.-7 p.m. ..... Aug. 22 (Thurs.)
Classes Begin ..... Aug. 28 (Wed.)
Late Registration/Schedule Changes ..... Aug. 28-Sept. 5 (Wed.-Thurs.)
8:30 a.m.-5:30 p.m. ..... Mon.-Thurs.
8:30 a.m.-4 p.m. ..... Fri.
Holiday (Labor Day) ..... Sept. 2 (Mon.)
Twelfth Class Day ..... Sept. 13 (Fri.)
Deadline for Fall Degree Application ..... Sept. 27 (Fri.)
Staff Development (Offices Closed/No Classes) ..... Oct. 18 (Fri.)
Last Day to Drop or Withdraw with a "W" ..... Nov. 20 (Wed.)
Thanksgiving Holiday ..... Nov. 27-30 (Wed.-Sat.)
Last Class Day ..... Dec. 14 (Sat.)
Final Exams ..... Dec. 16-19 (Mon.-Thurs.)
Fall Graduation ..... 7 p.m. ..... Dec. 19 (Thurs.)
End of Semester ..... Dec. 20 (Fri.)
College Offices Closed ..... Dec. 21-Jan. 5 (Sat.-Sun.)

WEEKEND COLLEGE FALL 2002

Weekend College students may also register on any of the regular registration days for the fall semester.

Session A

Registration ..... 8:30 a.m.-5:30 p.m. ..... Sept. 3-5 (Tues.-Thurs.)
8:30 a.m.-2 p.m. ..... Sept. 6 (Fri.)
Session A classes begin ..... Sept. 7 (Sat.)
Session A final exams, end of term ..... Oct. 12 (Sat.)

Session B

Registration ..... 8:30 a.m.-5:30 p.m. ..... Nov. 5-7 (Tues.-Thurs.)
8:30 a.m.-2 p.m. ..... Nov. 8 (Fri.)
Session B classes begin ..... Nov. 8 (Fri.)
Session B final exams, end of term ..... Dec. 14 (Sat.)

2002

May 2002

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2002

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9	10	11	12	13	14	15
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23	24	25	26	27	28	29
30						

July 2002

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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August 2002

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				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2002

S	M	T	W	T	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 2002

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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2002

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3	4	5	6	7	8	9
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17	18	19	20	21	22	23
24	25	26	27	28	29	30

December 2002

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SPRING MIDS | SUMMER I 2002 | SUMMER II | FALL 2002 | MDW

College Holiday, Staff Development, Spring Break or no classes | Graduation | Semester

CALENDAR

MIDWINTER 2002-2003

For Advance Registration information, consult current schedule of classes.

Registration	9 a.m.-noon	Dec. 26 (Thurs.)
Classes Begin	1 p.m. (Classes run Mon.-Fri.)	Dec. 26 (Thurs.)
Census Date		Dec. 27 (Fri.)
Holiday (New Year's)	No Classes	Jan. 1 (Wed.)
Last Day to Drop or Withdraw with a "W"		Jan. 3 (Fri.)
Last Class Day, Final Exams, End of Term		Jan. 10 (Fri.)

SPRING 2003

For Advance Registration information, consult current schedule of classes.

Offices Open/Twelve Month Employees Return	Jan. 6 (Mon.)
Nine Month Faculty Return	Jan. 6 (Mon.)
Registration	Jan. 8-9 (Wed.-Thurs.)
Classes Begin	Jan. 13 (Mon.)
Late Registration/Schedule Changes	Jan. 13-21 (Mon.-Tues.)
Holiday (Martin Luther King Day)	Jan. 20 (Mon.)
Twelfth Class Day	Jan. 29 (Wed.)
Deadline for Spring Degree Application	Feb. 14 (Fri.)
Spring Break (No Classes)	Mar. 10-15 (Mon.-Sat.)
Holiday (Offices Closed - No Classes)	Apr. 18-19 (Fri.-Sat.)
Last Day to Drop or Withdraw with a "W"	Apr. 10 (Wed.)
Last Class Day	May 3 (Sat.)
Final Exams	May 5-8 (Mon.-Thurs.)
Spring Graduation	7 p.m. May 9 (Fri.)
End of Semester	May 9 (Fri.)
Four-day work-week begins	May 12 (Mon.)

MAY MID-SEMESTER 2003

For Advance Registration information, consult current schedule of classes.

Registration	May 12 (Mon.)
Classes Begin...(Classes run Mon.-Fri.)	May 13 (Tues.)
Last Class Day	May 23 (Fri.)
Holiday (Memorial Day - Offices Closed)	May 26 (Mon.)
Final Exams/End of Mid-Semester	May 27 (Tues.)

SUMMER I 2003

For Advance Registration information, consult current schedule of classes.

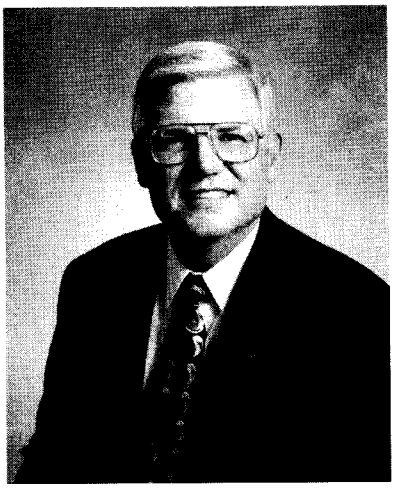
Registration	May 27 (Tues.)
Classes Begin	May 28 (Wed.)
Late Registration/Schedule Changes	May 28-29 (Wed.-Thurs.)
Census Date (4th class date)	June 3 (Tues.)
Last Day to Drop or Withdraw with a "W"	June 19 (Thurs.)
Last Class Day, Final Exams, End of Term	July 3 (Thurs.)

SUMMER II 2003

For Advance Registration information, consult current schedule of classes.

Registration	July 7 (Mon.)
Classes Begin	July 8 (Tues.)
Late Registration/Schedule Changes	July 8-9 (Tues-Wed.)
Census Date (4th class date)	July 14 (Mon.)
Last Day to Drop or Withdraw with a "W"	July 31 (Thurs.)
Last Class Day, Final Exams, End of Term	Aug. 13 (Wed.)
Five-day work week begins	Aug. 18 (Mon.)

College Holiday, Staff Development, Spring Break or no classes | Graduation | Semester



Welcome to Odessa College

Odessa College was founded over 50 years ago to provide educational opportunities for the citizens of Odessa. Today OC's programs are delivered to a service area of over 32,000 square miles. This catalog will provide you with an overview of the extensive curriculum, programs, and services that are available to you.

When you enroll at Odessa College, you will find faculty and staff who are pleased to have you as a student and who are dedicated to making your educational experience a success. We want to help you make your educational dreams become a reality!

Dr. Vance Gipson
President, Odessa College

Odessa College Web Site: www.odessa.edu

OFFICE	PHONE
Admissions Office	335-6432
Adult Basic Education (GED, ESOL classes)	332-9477
Bookstore	335-6655
Business Incubator	333-7409
Cafeteria	335-6435
Campus Police	335-6666 After Hours 238-6334
*Career Services	335-6835
Cashier's Office (tuition, fees, IDs, parking stickers)	335-6419
Children's Center	335-6480
Computer Lab (Student Learning Center)	335-6878
Continuing Education	335-6582
Continuing Education Drive-Thru Booth	335-6670
Counseling (Student Development Center)	335-6433
*Dean of Arts, Humanities & Physical Education	335-6412
*Dean of Science, Health & Mathematics	335-6446
*Dean of Technical Studies & Curriculum	335-6409
*Dean of Workforce, Continuing & Distance Education	335-6685
*Director of Intercollegiate Athletics	335-6567
General Information	335-6400
Learning Resources Center	335-6640
*Media Relations & Publications (catalogs, schedules)	335-6416
*Off-Campus Programs	335-6685
*President's Office	335-6410
Purchasing Office	335-6601
Registrar	335-6404
Sports Center & Community Recreation	335-6348
Student Activities	335-6403
Student Financial Services (loans, grants, scholarships, jobs for students, veterans)	335-6429
Student Recruiting	335-6861
Student Support Services	335-6476
*Telecourses	335-6685
Testing Center	335-6620
Tutoring Center	335-6878
Upward Bound	335-6311
*Vice President for Business Affairs	335-6415
*Vice President for Instruction	335-6413
*Vice President for Student Life (housing, insurance)	335-6684

*These offices close during the lunch hour

Campus Directory

LOCATION	REGULAR HOURS	SUMMER HOURS
SUB 205	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
Noel Center 619 N. Grant	M-Th 8 a.m.-9 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-9 p.m. (Aug. only 7:30 a.m.-5:30 p.m.)
SUB 102	M&Th 7:45 a.m.-5 p.m., Tu&W 7:45 a.m.-7 p.m., F 7:45 a.m.-3 p.m.	M-Th 7:30 a.m.-6 p.m.
Noel Center 619 N. Grant	M-F 8 a.m.-5 p.m.	M-F 8 a.m.-5 p.m.
SUB 103	M-F 7 a.m.-7 p.m.	M-Th 7 a.m.-1:30 p.m.
GYM 107	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SUB 204	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 101	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SH 121	M-F 7:30 a.m.-5:30 p.m.	M-F 7:30 a.m.-5:30 p.m.
LRC 301-303	M-Th 8 a.m.-10 p.m. F 8 a.m.-5 p.m., Su 2-5 p.m.	M-Th 7:30 a.m.-9 p.m.
DH 101	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
Parking Lot	M-Th 8:30 a.m.-7 p.m., F 8:30 a.m.-4 p.m.	M-Th 8 a.m.-7 p.m.
SUB 204	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
CT 100	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
CT 100	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ET 152	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
DH 101C	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SC 213A	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
LRC	M-Th 7:45 a.m.-10 p.m., F 7:45 a.m.-5 p.m. & Su 2-5 p.m.	M-Th 7:30 a.m.-9 p.m.
ADM 213	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
DH 101C	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 201	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 101A	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SUB 202	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
Sports Center	M-Th 6 a.m.-9 p.m., F 6 a.m.-7 p.m., Sa 9 a.m.-1 p.m.	M-Th 6 a.m.-9 p.m., F 6 a.m.-7 p.m., Sa 9 a.m.-1 p.m.
Student Activity Center-Travis Hall	M-Th 8 a.m.-8 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SUB 203	M-Th 8 a.m.-5:30 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SUB 107	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
SUB 213	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
DH 101C	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
GYM 200	M & Th 8 a.m.-6 p.m., Tu 8 a.m.-10 p.m., W 8 a.m.-8 p.m., F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
LRC 301	M-Th 8 a.m.-10 p.m., F 8 a.m.-5 p.m., Su 2-5 p.m. Call for appointment.	M-Th 7:30 a.m.-9 p.m. Call for appointment.
SUB 213	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 203	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 202	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.
ADM 212	M-F 8 a.m.-5 p.m.	M-Th 7:30 a.m.-5:30 p.m.

About Odessa College

The Board of Trustees of the Odessa Junior College District (hereinafter called OC), in compliance with the Criteria for Accreditation of the Southern Association of Colleges and Schools, formalizes the beliefs, philosophy, goals, and objectives of OC with approval and publication of this document. This formal Statement of Purpose provides the core around which all institutional programs are built. Institutional planning and evaluation processes demonstrate a commitment from Board members, administration, faculty, and staff to the tenets expressed in this statement.

Historical Background

The past of Odessa College is interwoven with growth and progress. A review of its history 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, OC has grown steadily through the last 54 years. Approximately 5,000 students are enrolled in university-parallel and occupational/technical credit courses. During a year, almost 11,000 individuals also enroll in one or more Adult Basic Education, Continuing Education or Community Recreation courses.

Many university-parallel courses are offered for students planning to complete four-year degrees at senior colleges or universities and are freely transferable. Former OC 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 also are offered, and additional ones are planned to meet the needs of citizens who want to learn new or improve existing skills. With more than 30 percent of our students enrolled in occupational/technical programs, OC continues to fulfill the workforce demands of our community.

Initially housed in temporary quarters in the old Odessa High School, OC's first classes 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.

The campus grew to 15 buildings on a 35-acre plot by 1960. Then during the 1990's, OC received three major property donations as the college continued to expand to serve the educational needs of its students and service area.

In January 1990, Rexene Products Company, one of Odessa's largest employers, donated a 42,000-square-foot building located in downtown Odessa. At that time, it was the largest single donation ever made to the college. Today, the facility, called the Noel Center, houses the Small Business Incubator and Adult Basic Education.

A prominent West Texas businessman donated one of the largest and best-equipped equine facilities in the nation to OC in late 1997. Located in nearby Gardendale, Texas, the 120-acre ranch, now called the Odessa College Rodeo and Agriculture Graham Center, was donated for the enhancement of the Odessa College Rodeo Team and the development of programs for students majoring in agriculture.

Today, the $55 million main campus in Odessa spreads over 80 acres and includes some 25 buildings that house more than 150 classrooms, laboratories and other facilities.

OC boasts a $7 million Sports Center with more than 110,000 square feet of floor space that houses athletics, physical education and community recreation activities. The college also is home to public television station KOCV-TV and public radio station KOCV-FM.

Odessa College has not only expanded its facilities, but has also expanded its educational services to much of West Texas. The OC service area now covers over 30,000 square miles, making it the largest service area for any community college in Texas. OC offers extension courses and/or Adult Basic Education courses in eight towns as well as offering concurrent classes in seven area high schools.

In 1999, an Odessa doctor and his wife donated a 27,000 square-foot building in Pecos to house the new Pecos Technical Training Center of Odessa College. After renovations to the building made possible by an $860,000 Economic Development Administration grant, the center now houses

administrative and faculty offices, technical and vocational learning labs and a student lounge. The center enables OC to improve and expand its long-established extension education program in Pecos.

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

Role and Mission

Odessa College shall be a two-year institution primarily serving its local taxing district and service area and offering vocational, technical and academic courses for certification or associate degrees. Continuing education, remedial and compensatory education consistent with open-admission policies, and programs of counseling and guidance shall be provided. The college shall insist on excellence in all academic areas – instruction, research and public service. Faculty research, using the facilities provided for and consistent with the primary function of the college is encouraged. Funding for research should be from private sources, competitively acquired sources, local taxes and other revenue.

Purpose

The purpose of the district shall be to provide:

1. Technical programs up to two years in length leading to associate degrees or certificates.
2. Vocational programs leading directly to employment in semiskilled and skilled occupations.
3. Freshman and sophomore courses in arts and sciences.
4. Continuing adult education programs for occupational or cultural upgrading.
5. Compensatory education programs designed to fulfill the commitment of an admissions policy allowing the enrollment of disadvantaged students.
6. A continuing program of counseling and guidance designed to assist students in achieving their individual educational goals.
7. Workforce development programs designed to meet local and statewide needs.
8. Adult literacy and other basic skills programs for adults.
9. Other purposes as may be prescribed by the Coordinating Board or the district's board.

Institutional Responsibility

In addition to specific responsibilities imposed by the Education Code or other law, Odessa College has the general responsibility to serve the public and, within the college's role and mission, to:

1. Transmit culture through general education.
2. Extend knowledge.
3. Teach and train students for professions.
4. Provide for scientific, engineering, medical and other academic research.
5. Protect intellectual exploration and academic freedom.
6. Strive for intellectual excellence.
7. Provide educational opportunity for all who can benefit from postsecondary education and training.
8. Provide continuing education opportunities.

City of 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 University Health Sciences Center is adjacent to Medical Center Hospital, providing additional health opportunities.

Odessa boasts a daily newspaper, 7 television stations, 20 radio stations and more than 130 churches. 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.

Equal Opportunity at Odessa College

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, OC will admit as students any persons who can benefit from the instructional programs offered.

In addition, OC will strive to meet post-secondary educational needs of its students by restructuring current programs and by creating new programs when these actions will benefit 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 OC Human Resources Office, or to the Assistant Secretary for Civil Rights at the Department of Education, Washington, D.C. 20202.

Accreditation

Odessa College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award associate degrees.

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:

ACCREDITING AGENCY	DATE OF LAST REVIEW
American Heart Association	July 1995
American Nurse Credentialing Center	July 1991
American Physical Therapy Association Commission on Accreditation in Physical Therapy Education	January 1996
Board of Nurse Examiners for the State of Texas	March, 2001
Board of Vocational Nurse Examiners for the State of Texas	2002
Commission on Accreditation of Allied Health Education Programs through the recommendations of the Committee on Accreditation for Respiratory Care	June 1999
Commission on Accreditation of Allied Health Education Programs (Surgical Technology)	October 1995
Joint Review Committee on Education in Radiologic Technology	October 2000
National Accrediting Agency for Clinical Laboratory Sciences with recommendations to the Committee on Allied Health Education and Accreditation	April 1999
National Certification Council for Activity Professionals	October 1994
National League for Nursing	November 1997
Southern Association of Colleges and Schools	April 17-19, 2002
Texas Board of Private Investigators and Private Security Officers	1995
Texas Commission on Fire Protection Personnel Standards and Education	2002
Texas Commission on Law Enforcement Officers Standards and Education	January 31, 1995
Texas Department of Health, Division of Food and Drugs	February 1994
Texas Department of Health, Emergency Medical Services Division	1997
Texas Department of Human Services – Long Term Care Division, Medication Aide Program	November 9, 1995
Texas State Board of Examiners of Professional Counselors	August 1991
Texas State Board of Social Worker Examiners	1995

School Year and Learning Options

SCHOOL YEAR

Please consult the College Calendar in this publication for specific beginning and ending dates of the semesters/sessions.

Fall Semester

Classes for the fall semester begin the middle to latter part of August and conclude before Christmas. Grade and scholastic standing reports are made available to students late in December. Formal winter graduation ceremonies are held at the end of the fall semester.

Spring Semester

Classes for the spring semester begin the middle part of January and conclude in early May. Formal graduation ceremonies are held at the end of the spring semester.

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, during both 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 OC Student Development Center.

Midwinter Session

OC 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, three or four-semester hour course during this special session.

May Mid-Semester

Odessa College is offering a mini-semester in May 2003 between graduation and the beginning of summer school. This mini-semester is similar to Odessa College's midwinter semester and will allow students to enroll in a three-hour course, which, together with both summer sessions will provide the opportunity to do the normal course work for a normal semester. This schedule opportunity is open to all college students who would like to maximize their number of semester hours in the summer.

Weekend College

In the Weekend College, all courses parallel those offered in the regular term except that they are compressed into a shorter time span. Full academic recognition is given these courses, and the time spent and the credit earned is equivalent to that of a regular session.

LEARNING OPTIONS

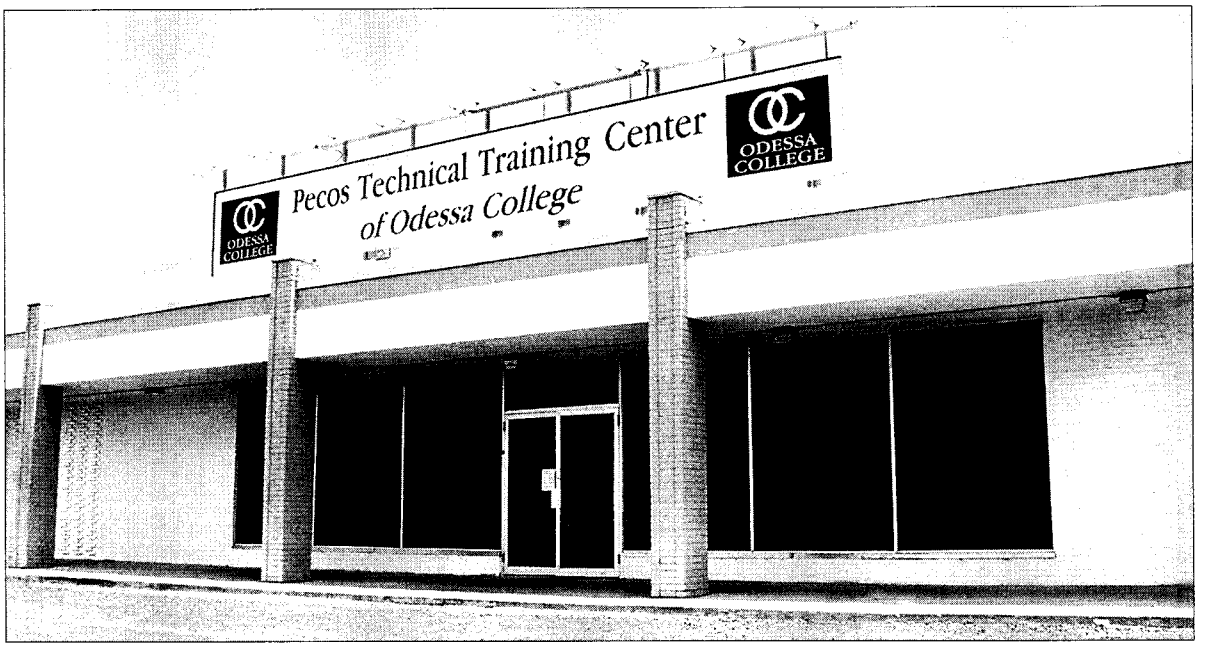
Evening Classes

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 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.

Distance Education

Odessa College offers an extensive distance learning program. Traditional classroom courses in several subjects are offered each semester in numerous towns throughout the Permian Basin. In addition, instruction is offered using various innovative distance learning technologies, including an interactive, two-way audio-video network; instructional television broadcasts through KOCV-TV, the college's licensed PBS affiliate; and individualized computer-based instruction via the Internet.



Extension Centers

The Pecos Technical Training Center and the Regional Extension Center at Monahans provide many of the college courses, both credit and non-credit, offered on the Odessa College campus. OC also offers classes and programs, though more limited in number and scope, at extension sites located in Andrews, Seminole, Kermit, Wink, Monahans, Imperial, Crane, McCamey, Presidio and other area towns.

Registration for extension classes may be completed either at OC's main campus in Odessa or at the extension site itself. Dates and times for extension registration at Pecos and Monahans are developed through the Odessa College Registrar's Office. In addition, area newspapers and radio stations usually carry notices of class offerings and registration dates and times .

Information about classes offered at any of the extension sites is available on campus from the Student Development Center, the Registrar's Office or the Distance Education Office. Specific information about offerings at the Pecos Technology Training Center is available from the director of the center.

Interactive Two-Way Audio-Video Network (OC Net)

Classes are offered to Pecos, Presidio, Wink and McCamey through a two-way compressed video system which allows students to see, hear and interact with their instructor via a large TV screen. Students use individual microphones in the classroom to talk with the instructor. Evening extension, concurrent and continuing education courses are offered via the network. Interactive classrooms are located in the high schools at Presidio, Wink and McCamey and at the Pecos Technical Training Center in Pecos. Students may register for these classes on the OC campus during registration or at the off-campus sites during the first class meeting. Local newspapers publish registration dates, times, locations and lists of course offerings.

Internet Courses

Odessa College offers classes via the Internet. Any student registering for this type of course must own or have access to a computer with Internet capabilities. Communication between teacher and student is done on the computer via electronic mail (e-mail), and students seldom meet face-to-face with their instructor except for orientation, depending on the instructor's syllabus. Anyone who has a computer with access to the Internet and the technology to access the World Wide Web may take Internet courses.

Internet courses may be useful for students who are distant from campus, have work schedules that conflict with class schedules, or for other reasons are unable to come regularly to campus. Internet courses are convenient and offer flexibility for students; however, these classes require more self-discipline than traditional classes because they do not physically meet on a regular basis.

Students may register for these online courses during all regularly scheduled registration periods.

Telecourses

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.

Students may register for the telecourses during all regularly scheduled registration periods both on campus and at all off-campus sites during the first class meeting.

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 National Public Radio network. KOCV-TV, Channel 36/ Cable 13, is the public television station for the Permian Basin and has been on the air since March 1986.

Technical Programs

Odessa College offers a wide variety of technical programs designed to enable a student to enter his or her 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 would exist at the time students completed 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 college for skilled personnel.

OC 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 OC, 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.

Workforce and Continuing Education

Odessa College offers a wide variety of 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 obtain continuing education units (CEUs) through the program for certification and licensure requirements.

Non-credit courses, seminars, teleconferences and workshops offer a wide range of activities intended to accommodate individuals of all ages. During the year, OC will plan activities 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 benefit from these courses may enroll. Extension classes in area cities also are offered. Any student enrolled for non-credit in a credit course may apply for credit by examination where applicable.

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 continuing education courses may be obtained from the Continuing Education Office or the Drive-thru Registration Booth or by calling the Continuing Education Office.

Training for Business and Industry

Continuing Education works with business and industry to provide education and training for employees. Contracts can range from billing for tuition for an individual enrolling in any course to providing a course for a company's employees on campus or at the business site. Customized training also is available.

Business Incubator

The Odessa College Business Incubator is located at Noel Center, 619 N. Grant Ave., in downtown Odessa. 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.

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.

Those interested in learning more about the OC Business Incubator are invited to call the incubator manager or come to Noel Center for a tour.

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 3,000 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 and English for Speakers of Other Languages 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 and Andrews learning centers.

Assessment, counseling and orientation sessions are scheduled to begin at three-week intervals. The official GED pretest 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 Adult Basic Education. Adult Basic Education class schedules also are included in the Continuing Education Schedule.

Community Recreation

Classes offered through the college's Community Recreation program allow people of all ages to learn or improve in a number of lifetime activities. Classes include step and water aerobics, golf, gymnastics, racquetball, scuba, swimming, lifeguard training, country and western dance, and hunter safety.

Community residents also can choose from several types of memberships to the OC Sports Center, one of the finest recreational facilities in the Permian Basin. The facility features a Fitness Center/Super Circuit, heated indoor swimming pool, indoor track, weightrooms, racquetball courts and two gymnasiums. To enroll for a course or purchase a membership, come to the Sports Center. You also may register at the Drive-Thru Booth located to the east of the Administrative Wing of the Student Union Building.

Upward Bound

Upward Bound is a federally-funded program for high school students who have the potential to succeed in education beyond high school and need a broad base of support – academics, enrichment, motivation, career counseling and pre-college skills development – to accomplish their goals.

Students served by Upward Bound must be potential first generation college students and meet income guidelines. Eligible students are selected from targeted junior and senior high schools in OC's service area.

During the school year, the Upward Bound participants receive academic and career services and come to the OC campus on Saturdays for enrichment classes and field trips.

During the summer, students participate in a six-week residential program. Students live on the OC campus in supervised residence halls and take classes in math, science, foreign language, English composition and literature. They also participate in cultural and other educational activities during the summer session.

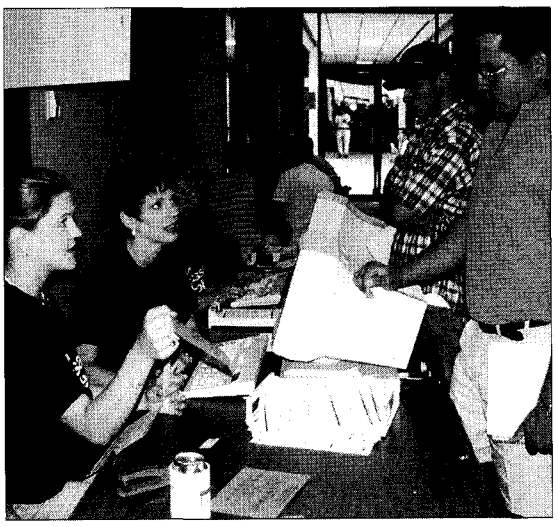
For more information, contact Upward Bound.

Admissions and Registration

ADMISSION TO THE COLLEGE

Odessa College is committed to equal consideration of all qualified applicants for admission without regard to race, color, religion, sex, age, or national origin, and without regard to disabilities as required by the Americans With Disabilities Act of 1990. An applicant will be eligible for admission to the college when the Office of Admissions has on file a completed application form along with all other items required under the appropriate admissions category. Each applicant is responsible for selecting the admissions category for which he/she qualifies. Assessment procedures are used for placement in particular courses or programs, not as a basis for admission to Odessa College.

Once an applicant is admitted to Odessa College and registers for classes, that person becomes part of the permanent Odessa College file and may continue to register for credit classes from one semester to the next unless the student becomes ineligible for scholastic, financial or disciplinary reasons. Students who return to OC after not enrolling for one or more semesters must verify accuracy of their address and other contact information, reaffirm residency status for tuition purposes, and supply appropriate transcripts if the student has attended any other college or university since last attending Odessa College.



Applicants are eligible for admission to Odessa College under the following categories:

1. **High School Graduate** – be a certified graduate of an accredited high school.
2. **G.E.D.** – have successfully passed testing requirements under the General Educational Development Test.
3. **Transfer** – attended another accredited college or university.
4. **Individual Approval** – includes individuals who have graduated from any unaccredited high school or non-traditional setting, as well as any person 18 years of age or older who does not qualify under categories 1, 2, or 3 above. Applicants in this category must submit evidence to the Admissions Office to verify the person's ability to benefit from study at the college.
5. **Concurrent Enrollment or Early Admissions** – students who qualify under special agreements between Odessa College and the high school they are currently attending.
6. **International Student With F-1 Visa.** Individual from outside the United States.

All applicants for admission must submit official documentation of compliance with placement testing requirements (TASP) as established by the Texas Legislature and the Texas Higher Education Coordinating Board. All transcripts and other official documents submitted for admission purposes become the property of Odessa College and will not be given to the student.

For each category, an applicant's file must contain the following in order to be complete, thus completing the applicant's admission requirements.

High School Graduate

1. Completed and signed application for admission.
2. Official high school transcript with date of graduation and rank in class.
3. Documentation of TASP status.

G.E.D. Completer

1. Completed and signed application for admission.
2. Official copy of G.E.D. test results.
3. Documentation of TASP status.

Transfer Student

1. Completed and signed application for admission.
2. Official copies of transcripts from all previously attended colleges or universities.
3. Documentation of TASP status.

Individual Approval Student

1. Completed and signed application for admission.
2. Documentation of ability to benefit from study at Odessa College, or
3. Notarized record of the high school equivalent work completed and the date of successful completion.
4. Documentation of TASP status.
5. Any other special documentation needed which may include school records and other test results.

Concurrent or Early Admissions Student

1. Completed and signed application for admission.
2. Official high school transcript.
3. Signed and approved concurrent/early admissions forms, verifying eligibility.
4. Documentation of TASP status.

International Student

Applicants from outside the United States may be admitted to Odessa College by meeting regular admission requirements and deadlines set for receipt of materials for international students. International students must agree to comply with all international student regulations in order to remain enrolled.

1. Completed and signed application for admission.
2. A $50 (U.S. currency) non-refundable application fee.
3. A deposit of $1,500 (U.S. currency) (approximately equivalent to tuition and fees for two semesters) to be held in escrow. The deposit will be returned to the student during his or her last semester at OC.
4. An official transcript, in English, of all previous academic work and an educational summary work sheet of all previous education.
5. An official score report on the Test of English as a Foreign Language (TOEFL) with a minimum score of 525 on paper test or 195 on computer test.
6. A physician's statement showing proof of immunization against diphtheria and tetanus within the last 10 years, a negative result on a tuberculosis test and evidence of good physical health.
7. A statement of financial ability to cover educational and living expenses for the expected time of enrollment. Students should expect to pay a minimum of $8,000 per calendar year for these expenses excluding the cost of transportation. International students are not eligible for any financial aid through the Odessa College Student Financial Services Office. (Please note: on-campus housing facilities may not be available.)
8. Proof of medical insurance prior to admission. Verification of medical insurance is required for each subsequent semester of enrollment.

Returning Students

Students in good standing who have attended OC but have not taken classes within the last calendar year must reapply for admission in the Admissions Office.

SPECIAL ADMISSIONS REQUIREMENTS FOR SELECTED PROGRAMS

Admission to OC does not automatically include admission to all programs at the college. The following programs have selective admissions criteria. If a student anticipates enrolling in one of these programs, he or she should check with a counselor or department representative about program admission requirements:

Clinical Laboratory Sciences
Emergency Medical Services (second year)
Fire Academy
Law Enforcement Academy
Nursing
Physical Therapist Assistant
Radiologic Technology
Respiratory Care
Surgical Technology

SPECIAL ENROLLMENT OPPORTUNITIES FOR HIGH SCHOOL STUDENTS

Concurrent Enrollment

High school juniors and seniors can earn college credit through Odessa College while they earn high school credit through their high school. This Concurrent Enrollment Program is open to students who:

1. Are enrolled in a high school that has a concurrent enrollment agreement with Odessa College;
2. Have passed the exit-level TAAS or TAKS test;
3. Have an overall high school grade point average of 3.0 or above in the semester immediately preceding enrollment in a college course or a score above the 90th percentile on the achievement sub-test in the content area of the course in which the student wishes to enroll;
4. Have the approval of their high school principal or designee;
5. Pay tuition and fees for the college courses.

High school students interested in concurrent enrollment opportunities should contact their high school counselor for assistance with course selection according to the high school's concurrent enrollment class schedule. A maximum of two concurrent classes can be taken during any semester, and concurrent students must be TASP exempt or must pass the TASP exam in the content area(s) of classes they wish to take.

Early Admissions

The Early Admission Program is similar to the Concurrent Enrollment Program in that both allow high school juniors and seniors who qualify to earn college credit while still in high school. Under the Early Admissions Program a student can enroll for a course or courses for college credit, but the course or courses do not count for high school credit. It is permissible for a student to participate in both Concurrent Enrollment and Early Admissions at the same time, but the two class maximum during any semester will apply. Early Admissions students must provide the same materials as students in the Concurrent Enrollment Program and contact the OC Admissions Office about testing requirements.

Placement Testing for New Students – TASP, Texas Academic Skills Program Requirements

Effective with fall 1998, all students who enter a public institution of higher education must be tested for competencies in reading, writing and mathematics skills prior to enrollment in college level classes. Performance on the test will not be used as a condition of admission.

Students are test exempt if they can document successful completion of at least three college credit hours prior to fall 1989, or if they have high TAAS, TAKS, ACT or SAT scores. A list of exemptions for TASP can be found in the TASP registration bulletin, which is available in the OC Testing Center and the OC Student Development (Counseling) Center. Students in a level I certificate program are TASP-waived as long as the prescribed courses are taken.

The OC Testing Center offers the COMPASS test, which can be used to satisfy the testing requirement at Odessa College. However, the student must have never taken the TASP test nor any other approved alternative test. A fee of $29 is required for this test. For additional information on the COMPASS test or any other test, call the OC Testing Center, 335-6620.

If a student has failed one or more portions of the TASP test or any other approved alternative test, Texas state law requires a student to be enrolled in and regularly attending some form of developmental education continuously until he or she passes all portions of the test. State law requires that the student who is enrolled in developmental education as a result of a TASP or alternative test failure must satisfactorily participate in that remedial program. OC defines the student's satisfactory participation in developmental education as consistent attendance coupled with continuous progress through the content of the developmental education program.

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 be a resident of the state of Texas for 12 months prior to their enrollment, including six months as a resident

in Ector County. In the case of students younger than 18, their parents or legal guardian must meet the above criteria.

2. **Out-of-district resident**: Students 18 years and older who have not lived within Ector county 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 younger than 18, their parents or legal guardian 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 younger than 18, their parent or legal guardian's residence for the prior 12 months determines whether they are out-of-state residents.
4. **Foreign students:** Foreign students are considered out-of-state residents.

Students with 170 or more semester hours of college courses from Texas public institutions of higher education may be subject to out-of-state tuition rates.

Waiver of Residence Requirements

The determination of a student's legal residence for purposes of establishing the appropriate tuition rates is made at OC according to guidelines pursuant to Title II, Texas Education Code and Rules and Regulations for determining residence status as established by the Texas Higher Education Coordinating Board.

Copies of these guidelines are available for inspection in the Admissions Office. 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 OC or until they petition for and receive approval for change of status. Students who have been classified as non-residents may petition for a change in their residency status after residing in Texas for 12 consecutive months.

Students classified as residents 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.

SPECIAL PROGRAMS AND REQUIREMENTS

Health and Wellness for Students

Maintaining a healthy state of mind and body is important to student success in college. Even though Odessa College does not operate a student health clinic on campus, college services are available to provide referral options to a variety of local health care and other service facilities. Students should contact the Student Development Center at 335-6433 for assistance in locating needed services. A student resource guide to local agencies is accessible on the Odessa College web site, www.odessa.edu.

Important Information About Bacterial Meningitis

All public colleges and universities in Texas are required by action of the 77th Texas Legislature to notify all new students about bacterial meningitis and the potential health risks from that disease. The following information is provided for all students in compliance with the legislation.

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

What are the symptoms?

- High fever
- Severe headache
- Rash or purple patches on skin
- Vomiting
- Light sensitivity
- Stiff neck
- Confusion and sleepiness
- Nausea
- Lethargy
- Seizures

There may be a rash of tiny, red-purple spots caused by bleeding under the skin. These can occur anywhere on the body.

Increased numbers of symptoms mean higher the risk, so when these symptoms appear seek immediate medical attention.

How is bacterial meningitis diagnosed?

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

How is the disease transmitted?

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

How do you increase your risk of getting bacterial meningitis?

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

What are the possible consequences of the disease?

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

Can the disease be treated?

- Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur.
- Vaccinations are available and should be considered for:
  - Those living in close quarters
  - College students 25 years old or younger
- Vaccinations are effective against 4 of the 5 most common bacterial types that cause 70% of the disease in the U.S. (but do not protect against all types of meningitis).
- Vaccinations take 7-10 days to become effective, with protection lasting 3-5 years.
- The cost of vaccine varies, so check with your health care provider.
- Vaccination is very safe – most common side effects are redness and minor pain at injection site for up to two days.

How can I find out more information?

- Contact your own health care provider.
- Contact the Ector County Health Department at 915-498-4141.
- Contact web sites: www.cdc.gov/ncidod/dbmd/diseaseinfo; www.acha.org

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 the 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 OC 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.

Tech-Prep Students

Students who come to Odessa College from recognized tech-prep programs should make a counselor aware of that status to insure proper credit and placement.

Orientation Requirement

ORIE 1100, Orientation to Odessa College, is designed for new students to OC taking six or more credit hours. Other students are encouraged

to talk with their advisor about the advantages of taking the course. The course is designed to help students succeed in a usually difficult adjustment period. The course covers academic skills and techniques for success in college, along with college policies, rules and regulations. Students receive one credit that counts toward total enrollment hours for the semester. The credit does not transfer or count towards graduation.

OC Experience

All students new to Odessa College are encouraged to participate in OC Experience, a program designed with the new student in mind. Participants will have an opportunity to acquaint themselves with the campus, as well as services available to students once classes begin. OC Experience activities include placement testing (if needed), information sessions, a campus tour, academic advisement and the opportunity to register early. To sign up for OC Experience or for more information, please contact the Student Activities Center, 335-6403, or the Admissions Office, 335-6432.

More Information

The Welcome Center in Room 107 of the Student Union Building is a good starting point for persons who want specific information about programs, classes and activities at Odessa College. The Center is open during routine business hours. Telephone inquiries are welcome and a directory of the most frequently contacted offices and their respective telephone numbers is available in the front of this catalog. Interested persons are invited to visit the Odessa College web site at www.odessa.edu.

REGISTRATION PROCESS

Odessa College offers a variety of opportunities for students to register for classes and activities. Persons new to OC must complete the admissions process (see Index for admissions information pages) before they are allowed to register for classes.

Students who are enrolled for credit classes at Odessa College may continue to enroll from one semester to the next as long as they remain in good scholastic standing and have no outstanding debts to the college. Students who return to OC after not enrolling for one or more semesters must verify accuracy of mailing address and other contact information, reaffirm residency status for tuition purposes, and supply appropriate transcripts if the student has attended any other college or university since last attending Odessa College.

Academic Advising and Scholastic Planning

An important part of the registration process takes place well in advance of actual registration. Each student has a reason for attending Odessa College and should plan his or her course of study accordingly. Counselors and faculty advisors are available to assist students in academic planning. Specifically, these professionals can help with meeting prerequisites for courses, testing requirements, credit by examination, transferring courses, etc. Each student should meet with an appropriate advisor to work out a course of study or degree plan as early as possible. This meeting should be initiated by the student and should occur before the first registration at OC.

Students who have a TASP liability are required to have their schedule of classes approved by an OC counselor each semester.

Early Registration

The college designates specific dates and times for early registration for upcoming semesters. For a fall semester, early registration occurs in April. Early registration for spring semesters is set for November. For summer sessions, early registration is in April. Exact dates and times are published in the schedule of credit classes for each semester.

New students (first time in college or transfer students) and returning students who have not enrolled for classes at OC within the last calendar year should complete the application or reapplication process at least two weeks prior to the beginning of the designated early registration or OC Experience sessions.

Students who are enrolled at OC or who have been enrolled within the past calendar year are automatically eligible to participate in early registration activities. All fees due for early registration must be paid in full at the time designated for each semester in the class schedule.

Regular Registration – Credit Classes

Two days at the beginning each long semester and one day at the beginning each summer session are designated as registration days. Faculty advisors and counselors are available to

aid with registering students at that time. All registration dates and times are posted in the Schedule of Credit Classes Bulletin. Dates listed in the Schedule Bulletin take precedence over the college catalog.

Late Registration

Although strongly encouraged to register at regular registration times, students may still register for credit classes for a limited period of time after the semester begins. Students who register late have the responsibility of making up any work missed prior to their first time to attend. The college reserves the right to limit the class load for students who register late. Registration dates are published in the Schedule of Credit Classes Bulletin. A late registration fee is charged.

Extension and Other Off-Campus Registration

Students who attend classes at extension centers or concurrent enrollment classes at area high schools will have an opportunity to register at those sites. Dates and times are designated in the schedule of credit classes for each semester. Students who miss these times may come to campus to register at other designated registration times.

Workforce and Continuing Education – Non-Credit Registration

Students registering for continuing education classes may do so on an ongoing basis. This process takes place at the Continuing Education Office in Deaderick Hall, Room 101. Mail-in registration and telephone registration with a credit card also are available.

OC also offers drive-up registration for non-credit continuing education classes. Please stop at the Drive-thru Booth at the end of the main drive entrance off West University Boulevard.

Sports activity and recreation classes are offered through Community Recreation at the Sports Center. Students may sign up at that facility during regular hours of operation. These opportunities are available both to students and community members.

Audit of Credit Classes

Students who want to register for a regular credit class on an audit basis must adhere to the following regulations:

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.

Identification Cards

Odessa College requires photo identification cards for all on-campus, credit-hour students. ID cards are used for admission to Student Activities events, athletic events, fine arts presentations and for 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 Cashier's Office, in the Administrative Wing of the Student Union Building.

Parking on Campus

A permit is required for each vehicle (including motorcycles and mopeds) parked on campus. Students may purchase a permit during registration or at other times during the year. Payments are made at the Cashier's Office during regular office hours. A copy of parking regulations is available at the Cashier's Office or from the Campus Police Office.

Continuing Education students will be provided a courtesy parking sticker when they register for non-credit classes.

Vehicles parked on campus without a permit displayed will be ticketed. Failure to pay fines assessed by tickets will result in holds placed on registration and transcripts.

STUDENT RECORDS

Accuracy of Student Records

It is the reponsibility of each student to keep his or her record accurate and up to date. Changes in name, social security number, address, telephone number, etc., must be submitted in writing and signed by the student. The Registrar's Office processes changes.

Family Educational Rights and Privacy Act (FERPA) and Educational Record Inspection and Amendments

Odessa College complies fully with the Family Educational Rights and Privacy Act. FERPA affords students certain rights with respect to their education records, such as:

1. The right to inspect and review the student's education records within 45 days from the day the registrar receives a written request for access. The written request should identify the specific record(s) the student wishes to inspect. The registrar will make arrangements for access and notify the student of the time and place for records to be inspected. If the Registrar's Office does not maintain the records, the student will be advised of the correct official to whom the request should be addressed. If the student requests copies of his/her records, appropriate copies will be made at a cost to the student of $0.15 per page. Letters waiving students right to review will be excluded.

2. The right to request an amendment of the student's education records that the student believes is inaccurate or misleading. The request must be made in writing, identifying the record he/she wants changed, and specifying why it is inaccurate or misleading. The registrar, in consultation with the appropriate official, will examine the request and make a decision with regard to the request for amendment. If approved, the amendment will be made and the student notified. If the amendment is denied, the student will be notified of the decision and advised of his/her right to a hearing. Information regarding hearing procedures will be provided to the student at that time. If the student requests a hearing, the registrar will arrange the time and place and the student will be notified. The officials involved in the hearing process include the registrar, vice president for instruction, vice president for student services and the instructional dean over the division affected by the request. The vice president for instruction and the vice president for student services serve as the presiding officials. The decision of the presiding officials is final. Any objections to this decision by the student, instructional dean or registrar will be documented in the minutes of the hearing. Changes of grades are an exception and the current grade changes policy, published in this catalog, is not affected by a student's right to request an amendment to his or her educational records.

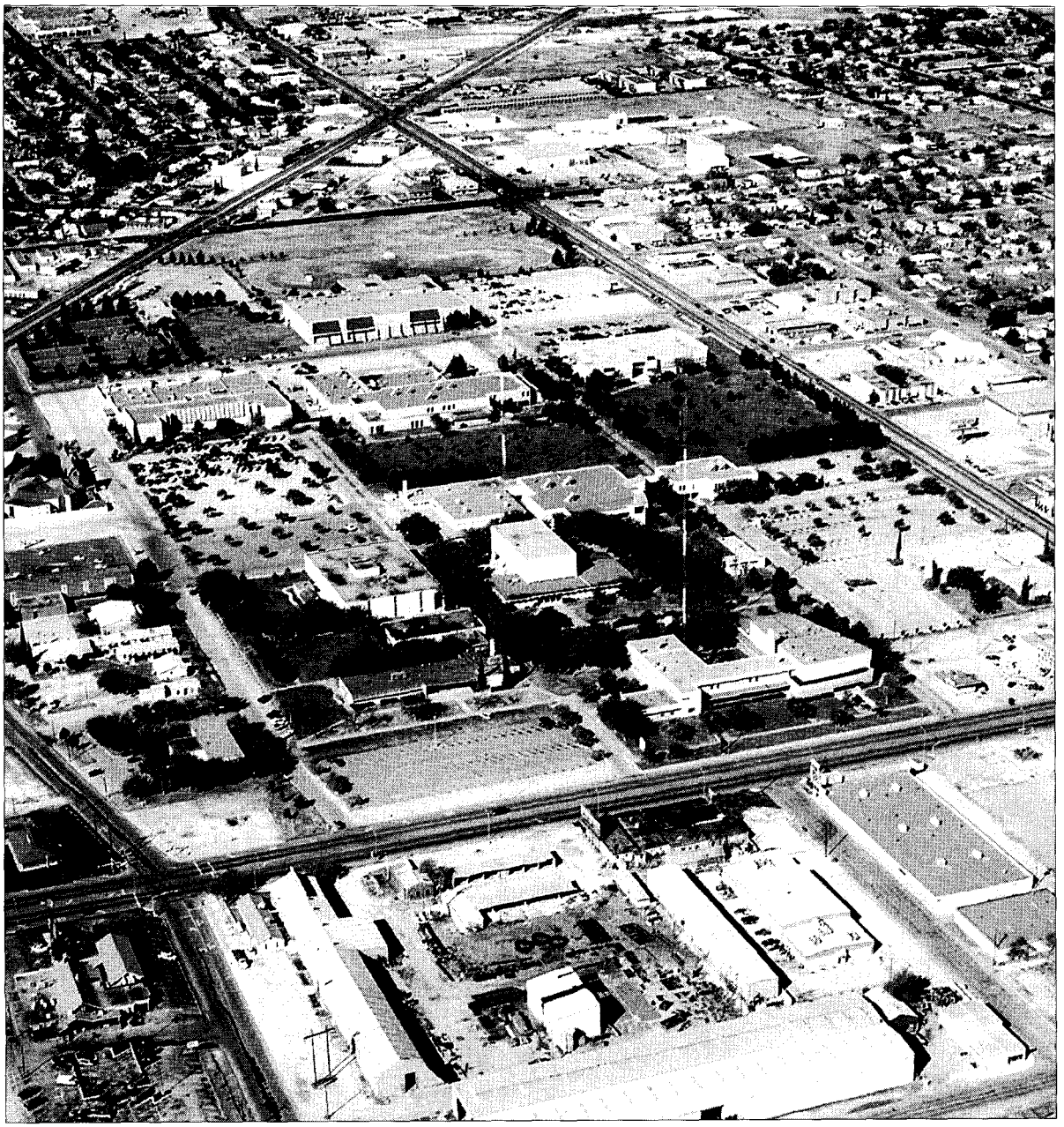
3. The right to restrict disclosures of personally identifiable information (a.k.a. directory information) contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the College in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the board of trustees; or another school official in performing his or her tasks. A school official has a legitimate educational interest if he/she needs to review an education record in order to fulfill his/her professional responsibility. The second exception permits disclosure of personally identifiable information to governing agencies to which the College must report. The Texas Higher Education Coordinating Board (THECB) collects both directory and non-directory information (including social security numbers) regarding students enrolled at Odessa College. Any student who objects to the disclosure of directory information may do so by completing the appropriate form in the Registrar's Office, 2nd floor of the Student Union Building. The registrar will relay the objection to the Texas Higher Education Coordinating Board (THECB), who will restrict disclosure of student information to third parties.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, S.W.
Washington, DC 20202-4605

Directory Information

Odessa College classifies as directory information the following student data: name, address, telephone number, email address, date and place of birth, field of study, enrollment status, degrees, certificates and other awards received, type of award(s) received, dates of attendance, student classification, and name of most recent previous educational institution attended. The Texas Higher Education Coordinating Board (THECB) collects directory and non-directory information. A student may elect to restrict the disclosure of directory information by completing the appropriate form in the Office of the Registrar. Contact the Office of the Registrar for additional information regarding the Family Educational Rights and Privacy Act (FERPA).



Financial Information
Tuition and Fees

Tuition and fees are due the date of registration.

Please note that the following tables reflect the 2001-2002 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.

These tables reflect only the tuition and fees required of ALL STUDENTS.

Parking fees and other course fees may be applicable.

For:
LAB FEES
PRIVATE INSTRUCTION FEES
TRAVEL FEES
TESTING FEES
MISCELLANEOUS FEES
see pages 26 and 27
for additional charges.

IN-DISTRICT TEXAS RESIDENT:

Semester Hours	Tuition	Building Use Fee	Reg. Fee Non-Refundable	Activity Fee	ID Fee Non-Refundable	**TOTAL Before Lab, Parking & Other Fees
1	66.00	10.00	20.00	5.00	2.00	103.00
2	66.00	20.00	20.00	6.00	2.00	114.00
3	66.00	30.00	20.00	7.00	2.00	125.00
4	88.00	40.00	20.00	8.00	2.00	158.00
5	110.00	50.00	20.00	9.00	2.00	191.00
6	132.00	60.00	20.00	10.00	2.00	224.00
7	154.00	70.00	20.00	11.00	2.00	257.00
8	176.00	80.00	20.00	12.00	2.00	290.00
9	198.00	90.00	20.00	13.00	2.00	323.00
10	220.00	100.00	20.00	14.00	2.00	356.00
11	242.00	110.00	20.00	15.00	2.00	389.00
12	264.00	120.00	20.00	16.00	2.00	422.00
13	286.00	130.00	20.00	17.00	2.00	455.00
14	308.00	140.00	20.00	18.00	2.00	488.00
15	330.00	150.00	20.00	19.00	2.00	521.00
16	352.00	160.00	20.00	20.00	2.00	554.00
17	374.00	170.00	20.00	21.00	2.00	587.00
18	396.00	180.00	20.00	22.00	2.00	620.00
19	418.00	190.00	20.00	23.00	2.00	653.00
20	440.00	200.00	20.00	24.00	2.00	686.00
21	462.00	210.00	20.00	25.00	2.00	719.00
22	484.00	220.00	20.00	26.00	2.00	752.00
23	506.00	230.00	20.00	27.00	2.00	785.00
24	528.00	240.00	20.00	28.00	2.00	818.00
25	550.00	250.00	20.00	29.00	2.00	851.00

OUT-OF-DISTRICT TEXAS RESIDENT:

Semester Hours	Tuition	Building Use Fee	Reg. Fee Non-Refundable	Activity Fee	ID Fee Non-Refundable	Out of District Fee	**TOTAL Before Lab, Parking & Other Fees
1	66.00	10.00	20.00	5.00	2.00	10.00	113.00
2	66.00	20.00	20.00	6.00	2.00	20.00	134.00
3	66.00	30.00	20.00	7.00	2.00	30.00	155.00
4	88.00	40.00	20.00	8.00	2.00	40.00	198.00
5	110.00	50.00	20.00	9.00	2.00	50.00	241.00
6	132.00	60.00	20.00	10.00	2.00	60.00	284.00
7	154.00	70.00	20.00	11.00	2.00	70.00	327.00
8	176.00	80.00	20.00	12.00	2.00	80.00	370.00
9	198.00	90.00	20.00	13.00	2.00	90.00	413.00
10	220.00	100.00	20.00	14.00	2.00	100.00	456.00
11	242.00	110.00	20.00	15.00	2.00	110.00	499.00
12	264.00	120.00	20.00	16.00	2.00	120.00	542.00
13	286.00	130.00	20.00	17.00	2.00	130.00	585.00
14	308.00	140.00	20.00	18.00	2.00	140.00	628.00
15	330.00	150.00	20.00	19.00	2.00	150.00	671.00
16	352.00	160.00	20.00	20.00	2.00	160.00	714.00
17	374.00	170.00	20.00	21.00	2.00	170.00	757.00
18	396.00	180.00	20.00	22.00	2.00	180.00	800.00
19	418.00	190.00	20.00	23.00	2.00	190.00	843.00
20	440.00	200.00	20.00	24.00	2.00	200.00	886.00
21	462.00	210.00	20.00	25.00	2.00	210.00	929.00
22	484.00	220.00	20.00	26.00	2.00	220.00	972.00
23	506.00	230.00	20.00	27.00	2.00	230.00	1,015.00
24	528.00	240.00	20.00	28.00	2.00	240.00	1,058.00
25	550.00	250.00	20.00	29.00	2.00	250.00	1,101.00

OUT-OF-STATE OR FOREIGN:

Semester Hours	Tuition	Building Use Fee	Reg. Fee Non-Refundable	Activity Fee	ID Fee Non-Refundable	**TOTAL Before Lab, Parking & Other Fees
1	325.00	10.00	20.00	5.00	2.00	362.00
2	325.00	20.00	20.00	6.00	2.00	373.00
3	325.00	30.00	20.00	7.00	2.00	384.00
4	350.00	40.00	20.00	8.00	2.00	420.00
5	375.00	50.00	20.00	9.00	2.00	456.00
6	400.00	60.00	20.00	10.00	2.00	492.00
7	425.00	70.00	20.00	11.00	2.00	528.00
8	450.00	80.00	20.00	12.00	2.00	564.00
9	475.00	90.00	20.00	13.00	2.00	600.00
10	500.00	100.00	20.00	14.00	2.00	636.00
11	525.00	110.00	20.00	15.00	2.00	672.00
12	550.00	120.00	20.00	16.00	2.00	708.00
13	575.00	130.00	20.00	17.00	2.00	744.00
14	600.00	140.00	20.00	18.00	2.00	780.00
15	625.00	150.00	20.00	19.00	2.00	816.00
16	650.00	160.00	20.00	20.00	2.00	852.00
17	675.00	170.00	20.00	21.00	2.00	888.00
18	700.00	180.00	20.00	22.00	2.00	924.00
19	725.00	190.00	20.00	23.00	2.00	960.00
20	750.00	200.00	20.00	24.00	2.00	996.00
21	775.00	210.00	20.00	25.00	2.00	1,032.00
22	800.00	220.00	20.00	26.00	2.00	1,068.00
23	825.00	230.00	20.00	27.00	2.00	1,104.00
24	850.00	240.00	20.00	28.00	2.00	1,140.00
25	875.00	250.00	20.00	29.00	2.00	1,176.00

ESTIMATED COST PER SEMESTER

Students must purchase their own textbooks, workbooks and supplies such as paper and pencils. Some courses also require the purchase of special supplies.

Estimated In-District Student Expense

Semester Hours	**3**	**9**	**15**
Required Tuition and Fees	$125	$323	$521
Parking Fee (optional)	4	4	4
Property Deposit (one time)	10	10	10
Lab Fee (average $15 per course)	15	30	30
Books (based on $70 per book)	70	210	350
Total Per Semester	$224	$577	$915

Estimated Out-of-District Student Expense

(Non-Resident of the College District)

Semester Hours	**3**	**9**	**15**
Required Tuition and Fees	$155	$413	$671
Parking Fee (optional)	4	4	4
Property Deposit (one time)	10	10	10
Lab Fee (average $15 per course)	15	30	30
Books (based on $70 per book)	70	210	350
Total Per Semester	$254	$667	$1065

Estimated Out-of-State or Foreign Student Expense

Semester Hours	**3**	**9**	**15**
Required Tuition and Fees	$384	$600	$816
Parking Fee (optional)	4	4	4
Property Deposit (one time)	10	10	10
Lab Fee (average $15 per course)	15	30	30
Books (based on $70 per book)	70	210	350
Total Per Semester	$483	$854	$1210

Lab Fees

Agriculture (AGRI 1309) 15.00
Art – Basic Photography (ARTS 2356, 2357) 10.00
Art – Ceramics (ARTS 2346, 2347) 24.00
Art – Sculpture (ARTS 2326, 2327) 15.00
Automotive Technology (Except AUMT 1241, 1249, 1266, 2215, 2380) 24.00
Biology (Except BIOL 2306, 2470; HPRS 1106) 15.00
Biology (BIOL 2470) 10.00
Building Construction Technology (Except CNBT 1342, 2380) 24.00
Business Computer Info Systems (Except ITNW 1325, ITSC 2339, ITSC 2381, ITSE 2381) 15.00
Chemistry (CHEM 1105, 1111, 1112, 2101, 2123, 2125) 15.00
Child Development (Except CDEC 1391, 1393, 2326, 2328, 2341, 2384) 10.00
Clinical Laboratory Science (Except MDCA 1260, MLAB 2466, MLAB 2467) 5.00
Computer Network/Info Technology (Except ITNW 1325, ITNW 1380, ITSC 1321) 15.00
Computer Science (All Courses) 15.00
Culinary Arts (CULA 1214, 1301, 1341, 1345, 2201, 2302; PSTR 1301, 2331) 20.00
Culinary Arts (CULA 1409, 2232, 2236) 24.00
Diesel Mechanics (Except DEMR 1266, 2380) 24.00
Drafting (DFTG 1417, 1433, 2402, 2410, 2412, 2423, 2428, 2459) 5.00
Drafting (DFTG 1409, 2419) 24.00
Electrical/Electronics (Except CETT 1491, CETT 2381, ELMT 1491, ELPT 2451, IEIR 1312) .. 24.00
Emergency Medical Services Professional (EMSP 1355, 1356, 1438, 1501, 2434, 2438, 2444) 15.00
English (ENGL 0370, 1301, 1312, 2311 Word Processing) 10.00
Fire Technology (FIRT 1305, 1311, 1331) 24.00
Foreign Language (All 1411 and 1412 courses) .. 10.00
Geology (GEOL 1403, 1404) 15.00
Heating, Ventilation, Air Conditioning (Except HART 2380, 2445) 24.00
Law Enforcement/Criminal Justice (CJSA 1308) 20.00
Law Enforcement/Criminal Justice (CJLE 1211) 24.00
Machine Technology (Except MCHN 2381) 24.00
Maintenance Technology (CBFM 1424, PFPB 1317, PFPB 1413) 24.00
Management/Tech Prep (Except BMGT 1191, 1292, 2303, 2382; HRPO 1191) 5.00
Management/Tech Prep (BMGT 2303) 24.00
Mass Communication (COMM 1316, 1318, 1319, 1336, 1337, 2120, 2121, 2122, 2220, 2324, 2325, 2326, 2331) 10.00
Mass Communication (COMM 2303) 15.00
Mathematics (MATH 0170, 0171, 0172, 0173, 0174, 0370, 0371, 0372, 0375) 15.00
Music, Class Instruction (MUSI 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177) 20.00
Nursing (RNSG 1215, 1219, 1227, 1244, 1512, 2162, 2514; VNSG 1413, 1460, 1502, 1509, 1510) .. 15.00
Occupational Safety/Health Technology (EPCT 1341, OSHT 1405, 2405) 10.00
Office Systems Technology (ACNT 1403, 1411; ITSC 2421; ITSW 2431; POFI 1449, 2401; POFL 1459, 2401; POFM 1431, 2413; POFT 1409, 1429, 2401, 2433) 10.00
Office Systems Technology (POFM 1202, POFT 1127, 1425, 2303) 5.00
Petroleum Technology (PTRT 1316) 15.00
Photography (PHTC 1341, 1343, 1345, 1347, 1351, 1353, 2301, 2331, 2341, 2353) 10.00
Photography (PHTC 1349, 2349) 15.00
Physical Education (Except PHED 1100, 1107, 1108, 1109, 1117, 1119, 1120, 1123, 1136, 1137, 1138, 1139, 1141, 1142, 1152, 1166, 1238, 1301, 1304, 1306, 1346, 2120, 2136, 2137, 2138, 2139, 2141, 2142, 2278, 2376) 5.00
Physical Education (PHED 1100, 1107, 1166, 1306) 10.00
Physical Education (PHED 1108, 1109, 1117, 1119, 1120, 1152, 2120) 24.00
Physics (All Courses) 5.00
Radiologic Technology (RADR 1311, 1313, 2217, 2301, 2305, 2431) 15.00
Reading (All courses per semester hour) 2.00
Respiratory Care (RSPT 1325, 1410, 1411, 2247, 2310, 2314, 2325, 2353) 15.00
Surgical Technology (SRGT 1460) 15.00
Welding (Except WLDG 2381) 24.00

Private Instruction Fees

Applied Music, Private Instruction (1/2 hour) .. 20.00
Applied Music, Private Instruction (1 hour) 40.00

Travel Fees

Courses, which necessitate student travel such as SPAN 1305, Intensive Spanish Practicum; BIOL 2470, Marine Ecology; ENGL 2371, Advanced Literature Analysis; PHED 1123, Skiing; HIST 2372, Advanced Historical Analysis; and PHTC 1347, Landscape Photography, will have additional fees for travel expense. Check with the course instructor or department chair for details.

Testing Fees

COURSE	NO. TEST	COST PER TEST	TOTAL
RNSG 2514	1	30.00	30.00
VNSG 1230	1	30.00	30.00
VNSG 1500	1	96.00	96.00
VNSG 1509, 1510	1	74.00	74.00
RSPT 2360	1	25.00	25.00
RSPT 2363	1	60.00	60.00
SRGT 1442	1	45.00	45.00

Miscellaneous Fees

Advanced Standing Examination 20.00
Diesel Technology (Uniform Fee – DEMR 1506) .. 70.00
Diesel Technology (Uniform Cleaning Fee – All except DEMR 1266, 2380 & HRPO 1191) 8.00
Fire Academy (Equipment & Books, Estimated – FIRS 1401) 190.00
General Property Deposit (Refundable by request) 10.00
Late registration Fee 10.00
Law Enforcement Academy (Equipment and Books – CJLE 1506) 264.00
Legal Assistant Access Fee (Except LGLA 2380) 15.00
LVN Nursing (Andrews & Monahans Cap/Pin/ Graduation Fee - VNSG 1509 ..... 125.00
LVN Nursing (Andrews & Monahans Equipment Fee – VNSG 1502) 197.00
LVN, Nursing (Andrews & Monahans State License Fee/Review Course Fee – VNSG 1510) .. 376.00
Math (MATH 0173, 0372, 0375 Internet classes – software package) 95.00
Nursing (State License/Review Fee – RNSG 2514) 290.00
Physical Education (Pocket Mask – PHED 1166) 14.00
Physical Education (American Heart Association Certification Fee – PHED 1166) 1.00
Physical Education (Red Cross Certification Fee – PHED 1306) 7.50
Physical Education (Scuba Diving Certification Fee – PHED 1152) 11.00
Radiologic Technology (Software – RADR 2235) 25.00
Respiratory Care (Equipment Fee – RSPT 1160) 100.00
Schedule Change Fee 5.00
Student Identification Fee (Each Semester, Non-Refundable) 1.00
*Student Liability Insurance (Fall and Spring Semesters) 8.00
*Student Liability Insurance (Summer I and II Semesters) 6.00
Transcript Requested From OC, Official Copy 3.00
Transcript From Another Institution 5.00
**Vehicle Registration, Fall and Spring Semester 4.00
**Vehicle Registration, Summer I and II 1.00

*Student liability insurance or proof of comparable coverage is required for students enrolled in child development, clinical laboratory sciences, cosmetology, emergency medical technology, fire technology, human services, nursing, physical therapist assistant, radiologic technology, respiratory care, student trainer and surgical technology.

**Vehicle registration fees are refundable only upon complete withdrawal during the scheduled withdrawal period and only upon return of the parking sticker.

PAYMENT AND REFUND POLICIES

Payment by Check

Positive identification (driver license preferred) is required for any payment to OC. 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

American Express and Discover are accepted for payment of tuition and fees with proper approval.

Installment Payments

Installment payment plans are offered for payment of tuition and fees. Students pay in three installments, the first, a down payment of one-half of the tuition and fees and a $20 processing fee. The balance is paid in two payments before the end of the semester.

Schedule Change Fee

A schedule change fee of $5 will be charged for classes added during the first 12 class days of a regular semester or during the first four class days of a summer session except when the change is for the convenience of the college, a change in class time, a 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.

Returned Check Policy

All returned checks are collected through Equifax, Inc. or Checks Inc. A returned check fee of $27.06 is charged per check by each company. Returned checks should be paid within five days of the date notification is mailed to the student. Checks returned for tuition and fees may result in the student's automatic withdrawal from the college and all college records may be withheld. The student may re-enroll upon payment of all tuition and fees due. Odessa College reserves the right to require payment in cash from individuals with a history of returned checks.

Students attempting to drop classes by stopping payment of their check instead of initiating approved drop procedures through the Registrar's Office shall be subject to the normal returned check penalties.

Debts Owed the College

All forms of indebtedness to the college, including tuition, fees, fines, institutional loans, returned checks, property loss and property damage, must be paid before a student may re-enroll or have a transcript request honored. Failure to pay an outstanding account can result in the student being withdrawn from classes.

Dropping a Course or Withdrawing From College

A student wishing to drop a course or withdraw from college should obtain a drop or withdrawal form from the Registrar's Office. Students are encouraged to consult with instructors.

The student must withdraw either in person or by written or faxed information to the Registar's Office. Students must drop a class or withdraw from college before the official withdrawal date stated in the class schedule.

Students who are part of Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar.

No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to officially drop a class will result in a grade of "F."

Refund Policy

The refund policy for both complete withdrawals and dropped classes is as follows:

Refunds Before First Day of Classes

1. A 100% refund for complete withdrawals (less any non-refundable fees).
2. A 100% refund for dropped classes.

Refunds on or After First Day of Classes

	For Dropped Classes	For Complete Withdrawals From College
Fall and Spring Semesters		
During the first 15 class days	100%	70%
During the 16th through 20th class days	25%	25%
After the 20th class day	None	None
Summer Semesters		
During the first 5 class days	100%	70%
During the 6th through 7th class days	25%	25%
After the seventh class day	None	None

Canceled Classes

If a class is canceled by the college, all tuition and fees for that course will be refunded.

Refunds for Other Than Semester-Length Courses

Refund of tuition and fees will be calculated on varying scales, depending on the course length.

Method of Calculating Class Days

For purposes of the refund policy, a class day is defined as a day during which college classes are conducted. The count begins with the first day classes are held in the term and includes each consecutive day thereafter. The count is not just of days a particular class meets.

Refunds will be processed after the last class day to withdraw for each semester. Allow two to three weeks for receipt of refund check after the processing date. Odessa College reserves the right to deduct from the refund any outstanding financial obligations to the college.

Student Financial Services

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 wish to attend college. Of equal importance is the awarding of academic scholarships to recognize students who exhibit superior scholastic abilities.

The Student Financial Services Office administers four broad program areas: grants, employment, scholarships and loans. A Free Application for Federal Student Aid (FAFSA) and an institutional application are required for all need-based financial aid programs. Both the institutional application and the FAFSA are available from OC Student Financial Services. 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.

Students may not receive financial aid from two different schools during the same semester.

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 based on enrollment status.

Application for a Pell Grant is made by completing a FAFSA. Students will receive a Student Aid Report (SAR) from the Pell Grant processing center as a result of their application.

The **Federal Supplemental Educational Opportunity Grant (SEOG)** is for students with high financial need who are enrolled in at least six semester hours. It 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. These students should be enrolled in at least six credit hours. It is designed to assist students in enrolling and remaining in college. The FAFSA serves as the application.

The TEXAS Grant

The TEXAS Grant is for Texas high school graduates who completed the recommended or distinguished curriculum and graduated from high school no earlier than May 2001. Applicants must be entering freshmen, demonstrate need through the FAFSA and enroll in at least nine credit hours.

TEXAS Grant II is available to students who graduated from a Texas high school with the basic curriculum or earned a GED and are Texas residents. Applicants must demonstrate financial need as determined by the FAFSA and enroll in at least six credit hours.

Loans

The **Federal Family Education Loan Program (FFELP)** 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. Because not all financial institutions participate in the program, students may not be able to use their regular banking institution. The Student Financial Services Office will assist in trying to locate a lender if the student is unable to find one.

Application requirements include a FAFSA and an institutional aid application because the FFELP is completely need-based. This program is fully described in the Financial Aid Bulletin.

Federal Stafford Loans are available to dependent, independent and graduate students who have earned at least 15 credit hours at OC with a 2.0 GPA. Recipients should be enrolled in at least six credit hours and demonstrate financial need as indicated by the FAFSA. Interest rates and payment schedules are available in the Student Financial Services Office.

The **Unsubsidized Federal Stafford Loan Program** is intended to provide loans primarily to independent 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.

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 usually begin 60 days after disbursement. Parents do not have to fill out the FAFSA. Dependent students may borrow an

unsubsidized Stafford if their parents do qualify for a PLUS.

Short-term institutional loans are made by OC to assist students with registration costs. A student attempting to enroll at OC is eligible to apply if the student has at least a 2.0 GPA, is 18 years or older and does not have an existing short-term loan. The amount of the loan is for tuition and fees for the current semester plus a $20 processing fee. These loans are processed on a first-come, first-served basis. Students repay these loans in three installments. The first is a down payment of at least 10 percent, and the balance is paid in two payments. Book loans are not available.

Repayments

Under the United States Department of Education Repayment Policy, a student who receives federal grants and/or loans, and completely withdraws prior to the sixty-percent point in the semester (which is the 10th week) must repay the U.S. Department of Education, and possibly Odessa College, part of the financial aid award. Furthermore, a student who fails to satisfy all repayment obligations will not be eligible for financial aid at any school. Prior to completely withdrawing from school, a student should check with Student Financial Services to determine the amount of money owed and the required repayment. Repayment amounts will vary depending on the amount and type of aid received. For instance, a full-time student receiving $2,000 in grants, with a cost of $1,000 for tuition, fees and books, and who completely withdraws from school after completing 10 percent of the semester, would be required to repay $450 to the Department of Education. A complete withdrawal from school after completing 20 percent of the semester would require a repayment of $400. For any questions or clarifications of the repayment obligations, please contact Student Financial Services.

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 more than 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 annually awards more than $150,000 in academic scholarships to recognize scholastic merit. Some scholarships are designated for individuals from Ector County and 14 other West Texas counties: Andrews, Brewster, Crane, Culberson, Gaines, Jeff Davis, Loving, Pecos, Presidio, Reeves, Terrell, Upton, Winkler and Ward. These scholarships are awarded based on varying levels of academic achievement.

Please note: A list of scholarships, amounts of each, number awarded each year and requirements is available from OC Student Financial Services. For eligibility requirements and other information for the Odessa College Foundation, please contact the Office of Institutional Advancement.

Scholarships awarded by Student Financial Services: March 1 is the deadline to apply for academic scholarships awarded by OC for the fall semester. These include the **Leland Croft, L.M. Adair, Odessa College Academic, Hext Family Foundation, Parker Endowment, Property Deposit, Davidson, Mary and Travis Simpson, Slaton-Bassett,** and **Trigger Vance Phillips** scholarships. Students apply to the Student Financial Services Office.

Academic scholarship applicants must submit a completed scholarship application and high school and college transcripts to the Student Financial Services Office. Applications are ranked according to the students' grade point averages, with some consideration given to an essay and completed coursework. Applications without a transcript will not be considered for funding. A committee appointed by the director of Student Financial Services selects academic scholarship recipients. The committee awards scholarships to the highest ranking students until funds are depleted. Students must reapply each academic year.

Departmental scholarships are offered each year through the art and music departments and are awarded based on performance, merit, skill and ability. Other departments that award scholarships are cosmetology, nursing, petroleum, photography and social sciences. 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 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 $700 per semester for eight consecutive, full-time semesters; four semesters are applicable at OC 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 3.0 grade point average to maintain their eligibility. Applications are available from the foundation or from area high school counselors.

Odessa College Foundation, established on Jan. 26, 1996, continues its tradition of promoting higher education as well as providing students with financial assistance for achieving educational success. Students who are not eligible for federal or state financial assistance can apply for any of the following scholarships: **Becker Educators, Clara Hazel Freel, Half-Century, H.L. Mangrum** or **Dollars-for-Scholars.** Eligibility requirements are listed on the Foundation Scholarship Application which may be obtained in the Office of Institutional Advancement.

Other scholarships: In addition to the scholarships described above, others are available to students attending Odessa College. Many individuals and organizations cooperate with OC 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.

Tuition Tax Credits

Taxpayers may be eligible to claim a Hope Scholarship Credit against their federal income taxes. The Hope Scholarship Credit may be claimed for the qualified tuition and related expenses of each student in the taxpayer's family who is enrolled at least half-time in one of the first two years of college. You may claim 100 percent of the first $1,000 of the taxpayer's out-of-pocket expenses, plus 50 percent of the second $1,000 of the taxpayer's expenses. The amount a taxpayer may claim as a Hope Scholarship Credit may be reduced according to annual income. Please ask your tax advisor if you qualify for the credit.

The Lifetime Learning Credit, effective July 1, 1998, is a credit against federal income taxes. The credit is equal to 20 percent of the taxpayer's first $5,000 of out-of-pocket expenses for qualified tuition and related expenses for all the students in the family.

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 because their top-ranking status is certainly worthy of consideration for other awards.

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 previously, students are strongly encouraged to inquire into the possible benefits of the Department of Veterans Affairs as far in advance of the semester of planned attendance as possible. This procedure facilitates the coordination of educational claims for benefits between OC and the regional VA office and avoids delays that could occur in the award cycle. The Veteran's Office is a component of the Student Financial Services 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 OC Veteran's Office of any change in enrollment that may affect their educational benefits.

Academic and Class Information

ACADEMIC INFORMATION AND STANDARDS

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.

Class Attendance

Students are expected to attend all classes in which they are enrolled. The college requires instructors to keep accurate student attendance records; therefore, any student who must be absent from class for any reason should immediately consult with his or her instructor regarding the absence.

Students should understand that being absent from class seriously jeopardizes the possibility of success in a course. Any student who misses as much as 20 percent of scheduled class time in any semester should review his or her standing in the class with the instructor and determine whether to continue in the class or withdraw. If a student decides to withdraw from a class, he or she must comply with the deadlines published in the college's calendar.

Students enrolled in developmental courses in English, mathematics and reading because of scores on the TASP or alternative test should understand that attendance in those classes is mandatory under state law. A student in a developmental course who exceeds the number of absences listed below will receive an "F" in the developmental class. The student will receive an "F" after:

- seven (7) absences in a class that meets three times per week;
- five (5) absences in a class that meets two times per week;
- two (2) absences in a class that meets one time per week;
- two (2) absences in a one-hour class meeting once a week; or
- failure to attend and achieve progress in an individualized course of study which is assigned in lieu of enrollment in a scheduled developmental class.

Religious Holy Day – A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later than the 15th day after the first day of the semester, the student notified the instructor of each class scheduled on the date that the student would be absent for a religious holy day.

A "religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code.

The notice shall be in writing and shall be delivered personally by the student to the instructor of each class, with receipt of the notice acknowledged and dated by the instructor or by certified mail, return receipt requested, addressed to the instructor of each class.

A student who is excused under this section may not be penalized for the absence, but the instructor may appropriately respond if the student fails to satisfactorily complete the assignment or examination.

Withdrawal

So that all records are left in proper order, students who leave OC 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.

Students who are part of Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar.

No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to officially drop a class will result in a grade of "F."

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 interest of the students or the student body.

Class Load

The normal class 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 classes 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 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.

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 credit class schedule for the semester. A schedule change fee of $5 will be charged for all changes except those initiated 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 the 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 OC. 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 OC 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, with the exception of credit by examination for foreign languages. Other 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 Affairs benefits.

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 who 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 With Honors

A candidate for the associate 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 3.90 to 4.0 will be graduated summa cum laude.

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
F	Failure	0

The following grades are not used for GPA calculations:

GRADE	DESCRIPTION
PA	Passing
I	Incomplete
P	In Progress
Z	No grade assessed; requires re-enrollment. Restricted to developmental courses.
N	Audit
W	Withdrawn
S	Advanced Standing (credit by examination)
T	Transfer credit

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. 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 OC 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 OC Student Development Center and appropriate assistance from the developmental education program.

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 OC 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. However, a suspended student may appeal the suspension status for immediate enrollment the next long semester or abide by the stipulation of staying out of school for the required semester(s).

Summer Enrollment for Students on Scholastic Suspension

A student who is placed on scholastic suspension at the end of the spring semester may enroll for classes during the summer to bring up his/her GPA. Each student in this category must consult with a counselor or faculty advisor before enrolling for summer classes.

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 OC, 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.

Appeal of Scholastic Suspension

If a student chooses to appeal by applying for immediate re-admission for the next long semester after having been placed on suspension, the student must:

1. Contact the director of Admissions for permission to enroll. The student will be asked to submit a completed Evaluation of Academic Performance form.
2. Have the student's enrollment status reviewed by a committee comprised of the director of Admissions and other college officials. The student may be asked to meet with the person(s) reviewing the application.
3. Sign an agreement detailing the terms prescribed by college officials who reviewed the student's enrollment status, including meeting with an assigned counselor as directed. Conditions may also include enrollment in designated courses.

A suspended student who has been approved for continued enrollment must meet the conditions of the agreement in item 3 above. Failure to do so will result in the student being required to serve the imposed suspension the next long semester(s).

A student on scholastic suspension whose continued enrollment is approved will be allowed to enroll on scholastic probation. If the student does not return to good standing at the end of the semester, the original suspension will be enforced for the next long semester.

Return to Good Standing

A student on scholastic suspension who is enrolled under special conditions will return to good standing by fulfilling all the conditions of the specific admission agreement and earning a minimum of a 2.0 grade point average for the semester. The student will remain in good standing as long as he/she continues to earn a minimum of a 2.0 GPA each subsequent semester of enrollment.

A student on scholastic suspension who has not attended during the time of enforced suspension will return to good standing by earning a 2.0 or higher grade point average for the next long semester of enrollment. The student will remain in good standing as long as he/she continues to earn a minimum of a 2.0 GPA each subsequent semester of enrollment.

Second and Third Suspensions

A student, who is placed on scholastic suspension a second time, will be barred from enrolling for classes at Odessa College for the next two long semesters. A student with a second suspension has the same option to appeal that suspension by applying for enrollment permission. The same procedure as outlined in "Appeal of Scholastic Suspension" must be followed. Meeting the stated conditions of admission with a grade point average of 2.0 or higher will result in the student's return to good standing.

Failure to meet required grade point and other standards during any semester after a second suspension will result in the third and final suspension for the student. A student who is placed on scholastic suspension a third time may enroll for classes at Odessa College only upon approval of the vice president for instruction.

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.

A "Z" grade is restricted to developmental courses. No other grade is assessed and enrollment by the student in a subsequent semester is required. The grade of "Z" will be given only if students have (1) completed 80 percent of the semester's work and (2) attended 80 percent of the classes during the semester.

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, students requesting a 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 end of the long semester immediately following the one in which the grade was assigned automatically will be changed to a grade of "F" by the college. 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.

Academic Fresh Start

Under the provisions of the Texas Education Code Section 51.929 a Texas resident applying for admission to Odessa College may elect to have ALL course work earned ten years prior to the requested enrollment date ignored for purposes of enrollment. For additional information regarding *Academic Fresh Start* contact the Registrar's Office, SUB 202, 915-335-6404.

TRANSFERRING CREDIT

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 OC credit classes, and it will be evaluated only upon the request of the student. This evaluation will be completed no later than the conclusion of the semester in which the student has registered for credit classes and requested the evaluation. 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.

If Odessa College does not accept lower division, academic course credit earned by a student at another Texas public institution of higher education, OC 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 determination 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 of Odessa College Credit to Another Institution

With the adoption of the Common Course Numbering System, transferring among Texas colleges and universities has become easier. This system allows students to take courses at OC that are numbered the same at many Texas public colleges and universities.

Courses taken at OC 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 may not apply, and, therefore, should not be taken at this institution. Before registering, students should contact a counselor or advisor at OC 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 OC, 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 OC. 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 practices 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 OC have been cleared.

If another Texas public institution of higher education does not accept lower division academic course credit earned by a student at OC, that institution is obligated by the Texas Higher Education Coordinating Board to give written notice to the student and OC 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.

Military Experience and College Credit

While Odessa College does not routinely give academic credit for military experience, individuals are encouraged to utilize the credit by examination option if appropriate. Skills acquired in the military may be demonstrated on a departmental exam and credit awarded on the student's OC transcript. OC does award credit for physical education activity courses when a DD-214 is properly submitted to the Registrar's Office.

Students who passed the CLEP examinations while in the military may have their results evaluated under OC guidelines for awarding CLEP credit. Credit will be awarded if the college's standard for accepting CLEP credit is met. If military or CLEP credit has been awarded on an official transcript from another institution accredited by the appropriate regional accrediting association, that credit will be evaluated in the same manner as any other transfer work.

Odessa College is a Servicemen's Opportunity College and participates in ConAp, a program that admits new soldiers to the college at the time of their enlistment in the U.S. Army, Army Reserve or Army National Guard.

Articulation With Area High Schools

Articulation agreements between Odessa College and area school districts provide the opportunity for advanced placement in Odessa College for students enrolled in technical programs offered at Odessa College.

These agreements permit students to move directly into advanced courses upon presentation of evidence of skill mastery determined by appropriate documentation.

Information regarding these articulation agreements can be obtained from the Odessa College Admissions Office, Odessa College counselors or high school counselors.

Tech-Prep Programs

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 prepare them 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: child development, 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 an OC counselor for more information.

Transcript of Record

The record of a student's academic history is known as the transcript or permanent record. An official transcript bearing the signature of the registrar along with an embossed seal of the college, is the document used to transfer college courses from one college to another. Copies of transcripts are obtained from the Registrar's Office, located on the second floor of the Student Union Building. Requests must be in writing, and persons presenting requests at the Registrar's Office will be asked to show a picture identification card. Written requests may be made via letter or on a transcript request form. Forms are available from the Registrar's Office or on the web at www.odessa.edu/dept/registrar. On-line requests are valid only for transcripts to be sent to another college or university for educational purposes.

Persons requesting transcripts via postal service should send the written request along with payment to Registrar's Office, Odessa College, 201 W. University, Odessa, TX 79764. Payment in the form of check or money order should be to Odessa College. Credit cards (American Express, Visa, Mastercard, or Discover card) are also accepted. When paying by credit card please include name of card, card number, expiration date, and name of the cardholder.

Persons enrolled at Odessa College during the school year in which a transcript copy is requested will be issued requested copies at no charge. Former students and students who order more than five transcripts at one time will be charged a fee of $3 per copy. When a transcript is sent via fax, a charge of $5 per copy applies. There is no charge for records transmitted electronically to other institutions of higher education via authorized, secure servers.

Official transcripts will not be issued for students with unmet obligations to the college. College records are protected under FERPA regulations (see the Index for information regarding FERPA).

PLANNING AND APPLYING FOR DEGREES AND CERTIFICATES

Students working toward a degree or certificate 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 OC counselor. The student will file a written, signed copy of the plan with the Registrar's Office.

Preparation for Degree Study

The Texas Higher Education Coordinating Board recommends that high school students who plan to seek a four-year college degree follow the advanced or the advanced honors diploma option. Students who plan on earning a technical degree (A.A.S.) should follow a tech-prep plan when possible. If a tech-prep program does not exist in the desired field, a student should follow the advanced or advanced honors diploma option and take electives in the field of interest. Students who graduate with the regular high school diploma are still admitted to OC but may find themselves needing to take courses that are not in the degree plan in order to prepare them for the higher-level courses or degree study.

Adults who have been out of the educational system for a period of time or who may not have earned a high school diploma or GED are encouraged to pursue degree options. Career exploration opportunities are available and placement tests may be given to help determine what preparation, if any, a student may need in order to succeed in degree courses.

Graduate Guarantee

In April of 1992, the Odessa College Board of Trustees adopted a resolution which guarantees, with certain limitations, the associate degrees and certificates awarded by OC. The guarantee refers to the transferability of academic credits and technical job skills. Specific details concerning this guarantee may be obtained through the Office of the Vice President for Instruction.

Catalog Applicability

Students may graduate under the catalog in effect when they first entered OC so long as no more than seven years have elapsed since their

initial registration. (Exceptions to this are students who re-enroll in the nursing program.)
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.

Applying for Graduation

Students completing degree requirements during the summer or in December are encouraged to participate in the winter 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 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.

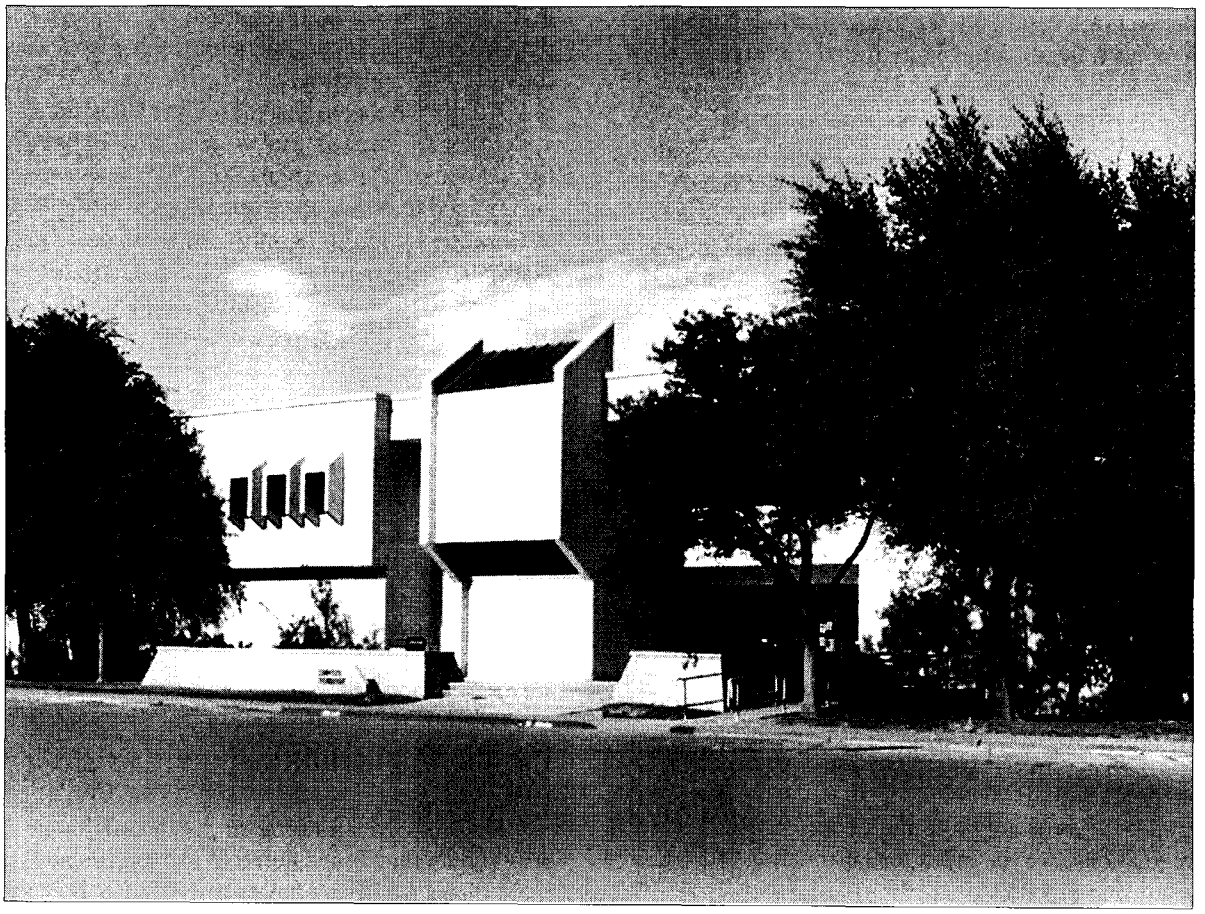
Students may purchase graduation supplies including cap and gown, invitations, jewelry, etc., from the Odessa College Bookstore.

Second Degrees

Students who have earned a degree at Odessa College may apply for a second degree after all stated requirements for the second degree have been completed, including a minimum of 15 semester hours taken in residence at OC 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 Registrar's Office.



Instructional Support Services

Odessa College makes available to students and community members a variety of programs and services. These offerings support the instructional mission of the college and offer enrichment opportunities to participants.

Welcome Center

The Welcome Center is the first point of contact for all prospective Odessa College students. The center, located in the Student Union Building, Room 107, provides information about getting started in college as well as class catalogs, schedules and other basic facts about the campus and programs of study. The center also sponsors campus tours, outreach programs to area junior high and high schools and participates in community projects including GEAR-UP, Leadership Odessa, Region 18 programs and the Permian Basin Fair. The Welcome Center staff is available to assist potential and existing students with general questions about the college.

Counseling and Advising

The Student Development 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 and referral, individual or group counseling, and career guidance.

Assistance is free and confidential. Any problems or concerns that interfere 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 Student Development 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 are urged to schedule an appointment with an OC counselor by calling 335-6433. Walk-in students can be accomodated, but during peak advisement periods such as registration, appointments will prevent a long wait to see a counselor. Periodically, special activities, programs and structured group experiences will be offered as well. On-line advising is also available by contacting the Odessa College Web site under "Students."

Learning Assistance

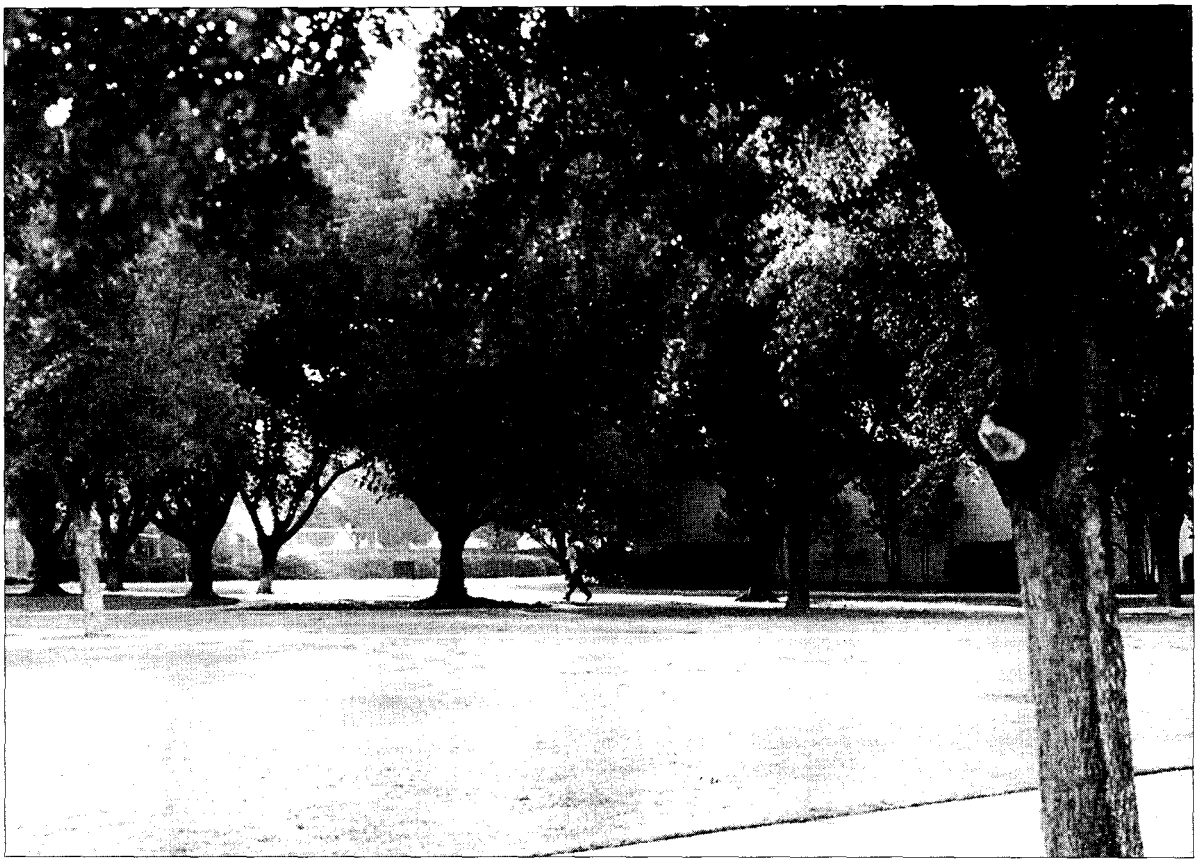
Students who come to Odessa College with diagnosed conditions which may interfere with learning can receive special assistance. Accommodations for learning disabilities and/or ADD/ADHD may be provided when a student requests them. A Request for Accommodations form and guidelines for beginning the request process are available in the Student Development Center.

Special Populations/Disability Services

Students who come to Odessa College with diagnosed physical or learning disabilities, which may interfere with learning, can receive special assistance. Accomodations for learning disabilities and/or ADD/ADHD may be provided when a student requests them.

The college strives to provide a complete range of services for students with disabilities such as assistance with registration, information on adaptive and assistive equipment, tutoring, and access and accommodations for programs and course work. Upon request, Odessa College will provide college materials in an alternative format as an accommodation to individuals with disabilities.

For information regarding services, students with disabilities should contact the counselor for special populations in the Student Development Center located in Room 204 of the Student Union Building or call 335-6346.



Career Services

Career-related services are available to credit and non-credit students and graduates. Occupational information, career counseling and degree planning are available as well as computerized career assessments and referral for traditional career testing. Seminars on interviewing skills, resume writing, career and college choices and job hunting skills are offered throughout the year. Career Services maintains a career resource library for student use.

Career Services also maintains a job bank of both part-time and full-time employment. Information on local, state and national job openings is available. OC sponsors a career fair each year during the spring semester.

Students who have not yet decided on a major and/or need career information, referral to other services, college transfer information or job placement assistance should contact Career Services in the Student Union Building or call 335-6890 or 335-6835.

Student Support Services

Student Support Services (SSS) is a federally-funded program which provides ongoing support for Odessa College students accepted in the SSS program. Students in the program benefit from a variety of intensive, one-on-one services and participate in various social and cultural special events. The major activities of the SSS project focus on providing counseling and academic support to participants to ensure their success in college and on providing opportunities for interaction with faculty, staff and other students to create a climate for educational success. Other activities include assessment of academic needs, personal success plans, instruction and tutoring, advising, counseling, mentoring, and continuous monitoring.

SSS participants must be either low-income, first generation college students, or disabled. Participants are selected based on information provided in a program application and are interviewed by SSS staff. Students interested in applying for the SSS program should contact the SSS office on the second floor of the Student Union Building.

Testing Center

The Testing Center, located in Room 200 of the Gymnasium, offers a variety of testing and assessment services designed to help students set and meet educational and career goals. Required placement testing for students is scheduled on a

daily basis. The Testing Center also schedules entrance examinations for specific programs such as nursing, surgical technology and physical therapy assistant.

Ability, career, interest and interpersonal inventories are offered to students who are seeking increased self-awareness for career and educational decisions. A small fee is charged for these tests. The center is the testing site for telecourse students or those who are in special testing situations. Students who use the services of the Testing Center must provide picture identification.

OC is an approved testing site for standardized state and national exams such as TASP, ACT, SAT and GED, which are associated with college admissions and placement. Registration booklets and schedules of fees for these exams are available on campus or from local high school counselors. Students also may take CLEP exams through the OC Testing Center.

Learning Resources Center

The Murry H. Fly Learning Resources Center (LRC) supports the college's curriculum resulting in a primary emphasis on each student's individual study and research needs. The faculty and staff work with the LRC's technical services and public services departments in choosing materials to support all college programs. More than 74,000 books; 396 current periodicals; eight newspapers; 37,979 e-books; 61 subscription databases and 5,536 media holdings are available to enhance the educational process.

Students can take advantage of research services by attending orientations or instructional class tours. Emphasis is placed on identification of sources, retrieval of information, quality judgment and use of research tools such as the online public access catalog, online databases and the Internet. Brochures and handouts are available for more complete information. In addition, there is a large reserve collection for specific assignments which provides supplemental materials for students.

The LRC's instructional media department delivers and maintains audiovisual equipment for classroom instruction as well as campus functions. Graphic design also is offered to assist classroom and campus needs.

Access to the online catalog and information about the LRC is available on the OC website at www.odessa.edu. The LRC seeks to provide the finest informational services possible. Suggestions and comments to improve all areas of the LRC are invited.

Developmental Education

Many students enter Odessa College lacking some of the basic skills necessary for college level reading, writing and mathematics. The Developmental Education 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 education courses and activities are available in basic English, basic mathematics and reading. All courses listed in this program grant one or three credit hours. These credit hours do not satisfy the requirements of any degree plan at OC, and they may not transfer to another college or university.

The following attendance policy applies to any student at Odessa College placed in a developmental class as a result of his or her failure to pass a portion of the TASP or alternative test:

1. Three-hour credit course meeting three days per week – maximum of seven absences allowed.
2. Three-hour credit course meeting two days per week – maximum of five absences allowed.
3. Three-hour credit course meeting one day per week – maximum of two absences allowed.
4. One-hour credit course – maximum of two absences allowed.
5. Student in Basic Skills Lab must log time on a regular basis throughout the semester.
6. Summer classes meeting four days per week – maximim of three absences allowed.
7. Summer classes meeting two days per week – maximum of two absences allowed.

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 peer tutors. Tutoring is free to Odessa College students. 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 Learning Resources Center, Room 301.

Campus Facilities

CAMPUS FACILITIES

Bookstore

The Odessa College Bookstore is an auxiliary enterprise operated as a service to students, faculty, staff and the community. The Bookstore's objective is to provide all the necessary and supplementary materials needed for student success. Textbooks, school supplies and novelty items are among the items sold. Profits generated by the Bookstore are used to provide scholarships for OC students.

Student Housing

Students who compete for OC in intercollegiate athletics are required to live in on-campus housing facilities if they are unmarried and are not living with their parent or legal guardian. Priority also is given to other students on competitive scholarships for on-campus housing. If space is available after all student athletes and other competitive scholarship students are accommodated, the spaces may be reserved by other students. A $100 deposit is required before a student is placed on a priority list for a room in an OC resident hall. Contact the Office of the Vice President for Student Services for information.

Cafeteria

The college cafeteria is located on the first floor of the Student Union Building. Students who live in campus residence halls participate in a meal plan, and food service is also available to all students, faculty and staff on a cash basis. Non-resident students may purchase a meal plan or a cash card for meals. Contact the food service director or the OC Cashier's Office for more information.

Children's Center

The Odessa College Children's Center provides daytime care for some 50 to 60 children of community residents and students and operates a Head Start satellite center for 36 children. The Children's Center accepts children from birth to 6 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.

Sports Center

The OC Sports Center is the home arena to the OC Wrangler and Lady Wrangler basketball teams. In addition there are racquetball courts, two gymnasiums (one for competition and one for community activities), indoor and outdoor tracks, weight training facilities, a Fitness Center/Super Circuit training room, a dance room and an indoor pool.

Students and community members all benefit from the classes and activities centralized at the Sports Center. Students who present a valid identification card have access to the facility and recreational equipment. Use of the Super Circuit is limited to individuals who are enrolled for use of that area.

The public is invited to be a part of the Sports Center. Activity cards may be purchased by non-students, and a variety of activity membership options are available. Individuals or groups also may rent the facility for special events or parties.

Meeting Facilities

Odessa College has meeting rooms available to both non-profit clubs and organizations and to businesses on a space-available basis. There is no charge for non-profit organizations. Businesses may pay a fee depending on the type of event scheduled. Food service is also available through the OC Cafeteria. Also available for community organizations is the recently renovated 750-seat Deaderick Auditorium. Contact the following for more information about booking these facilities:

- Community Room, Special Events Room, Electronics Technology Building Room 130 – Campus Police Office, 335-6491
- Fine Arts Auditorium – Lonnie Clark, Instructor of Music
- Deaderick Auditorium – Public Information Director, KOCV-TV
- Continuing Education Annex B or C – Continuing Education Office

Campus Police

The Odessa College Campus Police Office 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 may be contacted on a 24-hour basis for emergencies on campus. The office is located on the westside of the Gymnasium, Room 107.

Emergency Messages

Students should notify their parents, spouses and friends that the college staff will not interrupt classes to deliver a message unless there is a medical emergency (as deemed by college officials) or a death in the family.

Under federal law students' schedules cannot be given to a third party in either verbal or written form without the students' written permission.

Between 8 a.m.-5 p.m. weekdays, emergency messages for students should be directed to the Office of the Vice President for Student Services.

CAMPUS LIFE

Student Activities

Odessa College maintains the philosophy that classroom learning is only one part of its students' education. Opportunities for students to grow as individuals are made possible through a variety of social and personal experiences, as well as through academic pursuits. Student Activities contributes to personal development through educational and social programming and through leadership in student organizations.

The interactions of students with each other and with the faculty on an informal basis can provide students with insights and understanding about their society and can enrich the quality of students' 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 free or for a minimal charge through the student activity fee. Information regarding specific events is available from the Student

Activities Office.

The Student Activities Office is located in the Student Activity Center – Travis Hall. The Student Activity Center offers free pool, ping-pong and other games to students with a current OC ID. Student Activities also offers pool and ping-pong in the Sports Center.

Opportunities for students to participate in student activities include the following:

Clubs and Organizations

A number of diverse 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 Government Association

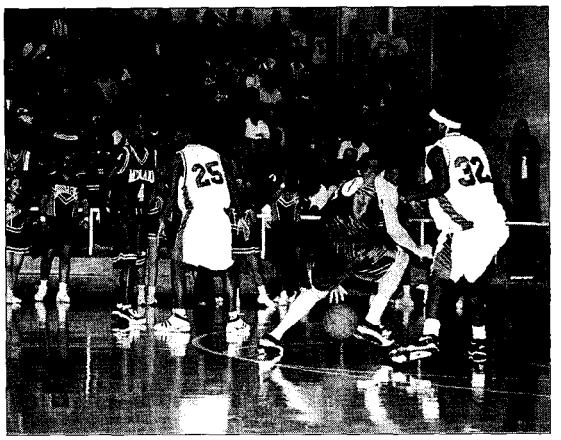
The Student Government Association (SGA) is designed to provide student input for information and decision making. It is a diverse body composed of current students selected from all components of the college. Student input groups provide a variety of perspectives to the administration as it makes decisions related to the welfare and interests of the student body. In addition, students are involved in the public relations and recruitment functions of the college. The composition, selection and direction of SGA will be determined by the Student Services administration of the college.

Intramurals

A program of intramural activities is offered each semester at Odessa College. The program is a function of Student Activities and operates out of the OC Sports Center, Room 204.

Choir and Band

Odessa College's A Cappella Choir and Vocal Ensemble have gained international recognition for their musical abilities. Recent performances for the OC Choir have included ones for the Texas Music Educators Association in 1995 and tours to San Antonio, New York City, England and Wales. The college also has an active Jazz Band that performs regularly on campus and in the community. The Jazz Band has traveled to various locations in the United States. The music department also offers a large concert band.



ATHLETICS

Odessa College athletic teams hold 43 national titles. The institution has earned a national reputation for its outstanding athletic programs. More than 500 athletes from OC have won National Junior College All-American honors. The athletic program includes teams in women's basketball, cross country, softball, track and rodeo. Men's teams compete in baseball, basketball, golf 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 Junior College Athletic Association tournaments every year.

Men's Baseball

In the 1990-91 school year, OC re-established its baseball program and advanced to the state tournament during that first season. The next year, the Wranglers won both the conference and regional championships. During the new team's first two years, 12 players were either drafted or signed to professional contracts. 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, and it has had four more All-Americans since that time. In 1995 the Wranglers finished third in the nation in the JUCO World Series, with several team members winning national honors.

The Wranglers have a well-established tradition of success, having been conference champions for seven out of the last 11 years and winning the conference championship consecutively for four years from 1997-2000. Since the beginning of the Wrangler baseball program, 49 team members have signed professional contracts.

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 conference co-champions in 1979, conference champions in 1989, 1993, 1994 and 2001 and regional champions in 1988, 1989, 1990, 1993, 1996 and 2001. The 1993 team also won the state championship. Since 1992 four players have been designated All-American.

Women's Basketball

The Lady Wranglers have won the conference championship six times, in 1980, 1984, 1985, 1986, 1989 and 1991; and the regional championship five times, in 1980, 1985, 1986, 1989 and 1991. They finished second in the 1985 and 2002 national tournaments and won the NJCAA national championship in 1986 and 1991. They have produced 17 All-Americans, more than 50 All-Conference players and more than 40 All-Region players. For 16 consecutive years, they were 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.

Men's Golf

Odessa College's men's golf program has a rich tradition of athletic success. The Wranglers have won six NJCAA national championships along with 45 appearances in the NJCAA national championships. The Wranglers golf program has captured the conference title 34 times and the Texas State Championship title five times,

produced 43 All-American, 60 All Region, 80 All Conference players, and 30 golf professionals. In October 2000, the OC men's golf team was recognized as the number one team in the nation (NJCAA, Division I) and since that time the Wranglers have maintained their ranking in the top four teams nationally. The golf program also has earned academic success with a team GPA of 3.0 or better in 1998, 1999, 2000, and 2001.

Men's and Women's Rodeo

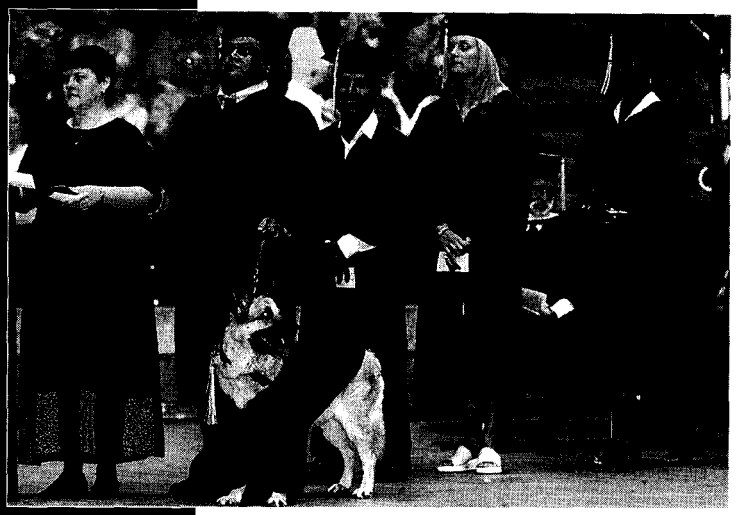
OC is nationally recognized as a power rodeo school in the National Intercollegiate Rodeo Association's Southwest Region, fielding both men and women's teams. During its twenty-plus year history, with the exception of only two years, members of the OC men's team have qualified every year for the national college finals. Members of the women's team also qualified for the national finals in 1993, 1994 and 2000. The men's teams have won 12 regional event titles, two regional team championships, nine national event titles and the National Intercollegiate Rodeo Association national team championship in 1989. Members of the men's team brought home a first place in national competition in bull riding in 1986, 1987, 1989, 1991 and 1996, and first place in calf roping in 1989 and 1990.

Women's Softball

In the 2000-2001 season, Women's Softball was added to OC's tradition of quality athletic programs. The addition of this sport to the OC sports roster reflects the strong interest in women's softball both locally and nationally. OC continues to build its program based on a winning combination of fine student athletes with strong representation from the Permian Basin and across the country.

Women's Track

In 1989, a women's track team was added to the OC athletic program and the team won the NJCAA national outdoor championship its first year out. The 1991 team finished third at the NJCAA national indoor meet and fourth at the NJCAA national outdoor meet. In 1994 the team captured the NJCAA indoor national championship. The 1995 team finished fourth at both the indoor and outdoor meets, and the women's cross country team finished sixth in the 1996 NJCAA national meet.



CONTENTS

Degrees and Instructional Programs

Degrees and Instructional Programs

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.

Odessa College Transfer Core Curriculum

Senate Bill 148 requires every institution of higher education to adopt a core curriculum of no less than 42 semester credit hours and no more than 48 semester credit hours. The core curriculum can be transferred in block to any Texas institution and substituted for the receiving institution's core curriculum. Odessa College has adopted a 44 semester credit hour core curriculum as listed:

COMMUNICATION – 9 hrs
ENGL 1301, Composition & Rhetoric,
ENGL 1302, Composition & Literature, and
One of the following:
SPAN 1411, First Year Spanish I, or
SPAN 1412, First Year Spanish II, or
FREN 1411, First Year French I, or
FREN 1412, First Year French II, or
GERM 1411, First Year German I, or
GERM 1412, First Year German II, or
SPCH 1311, Introduction to Speech Communication, or
SPCH 1315, Public Speaking, or
SPCH 1321, Business & Professional Speech

SOCIAL/BEHAVIORAL SCIENCE – 3 hrs
One of the following:
PSYC 2301, Introduction to Psychology, or
PSYC 2302, Applied Psychology, or
SOCI 1301, Principles of Sociology, or
SOCI 2301, Sociology of the Family, or
ECON 2301, Principles of Economics I (Macro), or
ECON 2302, Principles of Economics II (Micro)

MATHEMATICS – 3 hrs
One of the following:
MATH 1314, College Algebra, or
MATH 1316, Plane Trigonometry, or
MATH 1332, Structures of College Mathematics I, or
MATH 1348, Analytic Geometry, or
MATH 2413, Calculus I

U.S. HISTORY – 6 hrs
HIST 1301, United States History to 1877, and
HIST 1302, United States History From 1877

POLITICAL SCIENCE – 6 hrs
GOVT 2301, U.S. and Texas Government, and
GOVT 2302, American National Government

SCIENCE – 8 hrs
Two of the following:
BIOL 1406, General Biology I, and
BIOL 1407, General Biology II,
or
CHEM 1311/1111, General Inorganic Chemistry I/ Fundamentals of Chemistry Laboratory I, and
CHEM 1312/1112, General Inorganic Chemistry II/Fundamentals of Chemistry Laboratory II,
or
GEOL 1403, Physical Geology, and
GEOL 1404, Historical Geology,
or
PHYS 1401, College Physics I, and
PHYS 1402, College Physics II

HUMANITIES – 3 hrs
One of the following:
ENGL 2322, Survey of British Literature I, or
ENGL 2323, Survey of British Literature II, or
ENGL 2327, Survey of American Literature I, or
ENGL 2328, Survey of American Literature II, or
ENGL 2332, Survey of World Literature I, or
ENGL 2333, Survey of World Literature II

VISUAL & PERFORMING ARTS – 3 hrs
One of the following:
ARTS 1301, Art Appreciation, or
MUSI 1306, Music Appreciation, or
COMM 1318, Basic Photography I

INSTITUTIONAL OPTION – 3 hrs
COSC 1301, Intro to Computer Systems

TOTAL HOURS – 44 HRS

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 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 Options)
English
Foreign Language
Mass Communication
(Broadcasting/Mass Communication Options)
Music
Psychology
Sociology
Social Science
(Economics/Government/History Options)
Speech

Requirements for 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).**
- **Computer Science:** A three-semester-hour minimum from COSC 1301, COSC 1415 or ITSC 1401 (BCIS 1401).
- **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. Veterans who have one year active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.
- 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.

*Business administration and music A.A. degrees require three hours of sophomore English.
**Music A.A. degree requires three hours of foreign language, mathematics or science.

Residency Requirements:

To receive an associate in arts 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 hours 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.

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:

Agriculture
Biology
Chemistry
Computer Science
Geology
Mathematics
Physical Education
(Exercise and Sport Science/ Athletic Training Options)
Physics
Psychology
Sociology

Requirements for 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.
  Veterans who have one year active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.
- **Science:** A minimum of 12 semester hours.
- Computer Science: A three-semester-hour minimum from COSC 1301, COSC 1415, ITSC 1401 (BCIS 1401) or AGRI 1309.
- 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.

Residency Requirements:

To receive an associate in science 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 hours 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.

Associate in Science in General Studies

The associate in science in general studies degree, known as the A.S.G.S., is designed to allow the student to select from a wide range of courses that fulfill the requirement of a generalized education.

This degree will have most, if not all, courses that will transfer to senior institutions. 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.

Requirements for Associate in Science in General Studies Degree:

To qualify for the associate of science in general studies degree (A.S.G.S.), students must complete the following requirements:

- A minimum of 63 semester hours and meet residency requirements.
- A minimum average of "C" (2.0) in all work taken at Odessa College.
- A minimum of 15 semester hours of sophomore courses.
- Students who are not TASP exempt must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.
- Complete the following requirements:

	Semester Hrs
• Math and Science*	9
• Social and Behavioral Science*	9
• Communication Science*	12
• Life Enrichment Electives*	9
• Other electives*	24
Total Semester Hours Required	**63**

*See "Categories: Selection List for Associate in Science in General Studies Degree" that follows.

Categories:
Course Selection List for Associate in Science in General Studies Degree

- **Math and Science** (nine semester hours required)
  - Mathematics (three semester hours required): 1314, 1316, 1332, 1333, 1342, 1348, 2318, 2320, 2413, 2414, 2415
  - Chemistry: 1311, 1312, 2301, 2323, 2325
  - Biology: 1406, 1407, 1408, 2306
  - Geology: 1403, 1404
  - Physics: 1401, 1402
  - Agriculture: 1407, 1413, 1415, 1419, 2317
- **Social and Behavioral Science** (nine semester hours required)
  - History (three semester hours required): 1301, 1302
  - Government (three semester hours required): 2301, 2302
  - History: 2301, 2311, 2312, 2381
  - Psychology: 2301, 2302, 2303, 2308, 2315, 2319
  - Sociology: 1301, 1306, 2301, 2306, 2326
  - Anthropology: 2301, 2351
  - Geography: 1301, 1302
- **Communication Science** (12 semester hours required)
  - English (six semester hours required): 1301, 1302, 1312, 2307, 2311, 2322, 2323, 2327, 2328, 2332, 2333
  - Speech (three semester hours required): 1311, 1315, 1321, 2341
  - Spanish: 1300, 1310, 1411, 1412, 2311, 2312, 2321, 2322
  - French: 1411, 1412, 2311, 2312
  - German: 1411, 1412, 2311, 2312
  - Mass Communication: 1307, 1335, 1336, 2303, 2331
- **Life Enrichment Electives** (nine semester hours required)
  - Computer Science (three semester hours required): COSC 1301, COSC 1415, ITSE 1329* (BCIS 1200), ITSC 1401* (BCIS 1401), COSC 1430, COSC 2430
  - Arts 1301, 1303, 1304, 1325
  - Business Administration: 2301
  - Child Development: CDEC 1311* (CHLD 1302), CDEC 1318* (CHLD 1311), CDEC 2341* (CHLD 2303), CDEC 1421* (CHLD 1408)
  - Culinary Arts: CULA 1301* (CULI 1201), CULA 2302* (CULI 1202), CULA 2201* (CULI 1203), PSTR 1301* (CULI 1206)
  - Engineering: 1304
  - Legal (all courses)
  - Management: BMGT 1301* (MGMT 1301), MRKG 1311* (MGMT 1321), BUSG 2309* (MGMT 2331)
  - Music: 1301 (1370), 1306, 1308
  - Philosophy: 1301, 2306

- Office Systems Technology: POFI 2401* (OFST 1404), POFI 1449* (OFST 1406), POFT 1127* (OFST 1200), POFT 1302* (OFST 1402), POFT 1429 (OFST 1421), POFT 2401* (OFST 1422), POFT 2433 * (OFST 2410), ACNT 1403* (OFST 1424)
- Physical Education: (all courses)
- Mass Communication: COMM 1316, COMM 1318, COMM 1319, and Photography: PHTC 1313* (PHOT 2370)

■ **Other Electives** (24 semester hours required): In addition to the required courses in each category above, students may select an additional 12 semester hours from each category.

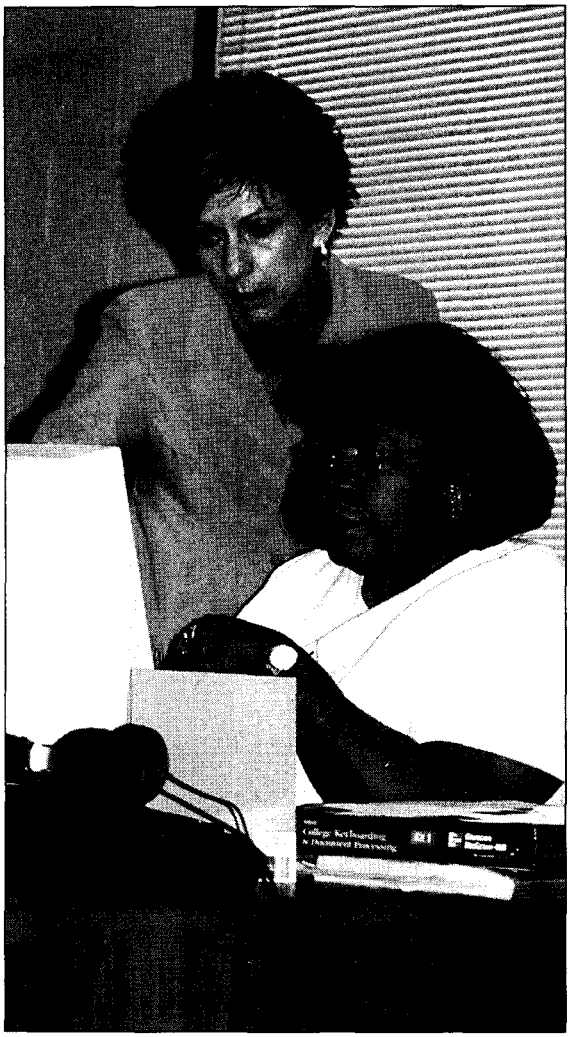
*Students should consult the catalog of the college or university they wish to transfer to prior to selecting courses from the preceding categories.

Residency Requirements:

To receive an associate 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 hours 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.



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. OC awards the A.A.S. degree in the following areas:

Automotive Technology
Building Construction Technology
Child and Parent Development
Clinical Laboratory Sciences
(Medical Laboratory Technology)
Computer Information Systems
(PC Programming and Internet Development/ PC Support Specialist Options)
Computer Network and Information Technology
Cosmetology
(Operator/Instructor Options)
Culinary Arts
(Culinary Arts and Food Service Management Options)
Diesel Technology
Drafting Technology
Electrical and Electronics Technology
Emergency Medical Services Professional
Fire Technology
(Fire Technology and Fire Administration Options)
Heating, Ventilation and Air Conditioning
Human Services
(Alcohol and Drug Abuse)
Law Enforcement/Criminal Justice
(Law Enforcement/Criminal Justice and Law Enforcement/Corrections Options)
Legal Assistant
Machining – Industrial Machinist Technology
Maintenance Technology
Management
Nursing
(RN)
Occupational Safety and Health Technology
Office Systems Technology
(Office Systems/Medical Emphasis/ Legal Emphasis Options)
Petroleum Technology
Photography
Physical Therapist Assistant
Radiologic Technology
Respiratory Therapy
Surgical Technology
Welding – Industrial Welding Technology

Requirements for Associate in Applied Science Degree:

To qualify for the associate in applied science degree (A.A.S.), students must complete the following requirements:

- **English:** ENGL 1301
- **Speech:** SPCH 1315 or SPCH 1321 as specified in each program.
- **Government:** GOVT 2301 or GOVT 2302 as specified in each program.
- **Computer Science:** COSC 1301 or ITSC 1401 (BCIS 1401) as specified in each program.
- **Mathematics:** Three semester hours of college-level math or as specified in each program.
- **Physical Education:** Two one-hour activity classes or as specified in each program. Veterans who have one year active service credit may satisfy the PHED requirement by submitting a copy of Form DD-214 to the Registrar's Office.
- **Philosophy/Fine Arts:** Three hours as specified in each program. The Texas Higher Education Coordinating Board has determined that ENGL 1302 or courses with

the course prefixes ARTS, COMM, FREN, GERM, LATI, MUAP, MUSI, PHIL, SPAN or SPCH will satisfy this requirement

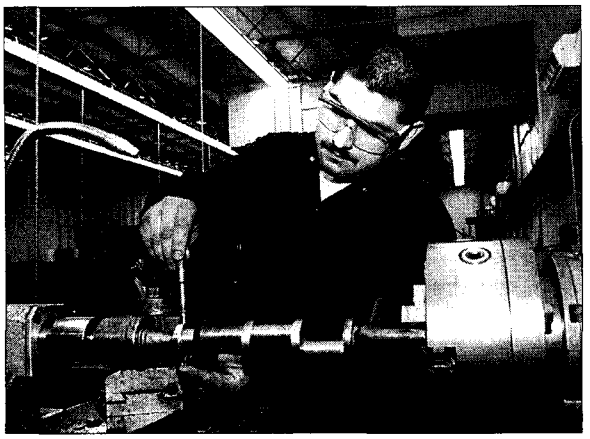
- **Science:** As specified in each program.
- **Major concentration and electives:** As specified in each program.
- A minimum of 63 semester hours.
- A minimum average of "C" (2.0) in all work. Transfer students must also have an average of "C" (2.0) in all work taken at Odessa College.
- A minimum 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.
- Students who are not exempt from the provisions of TASP or not in a TASP-waived certificate program must pass all three sections and have scores reported to Odessa College.
- Discharge of all financial obligations to Odessa College prior to graduation.

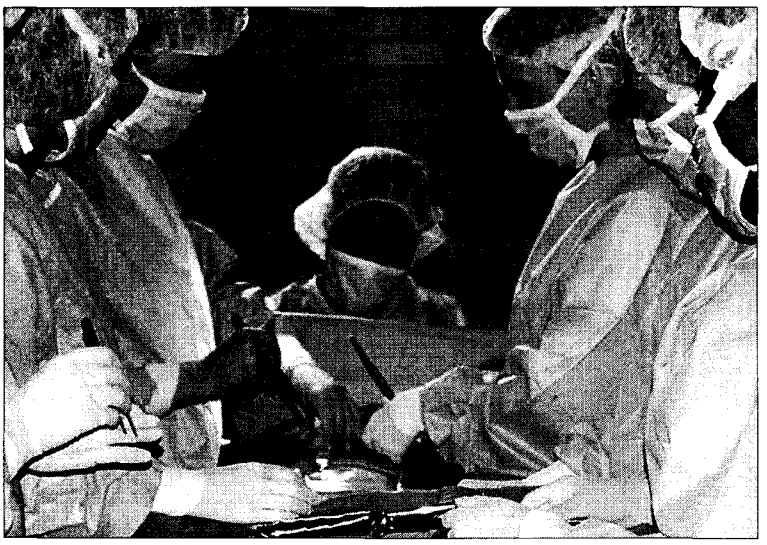
Residency Requirements:

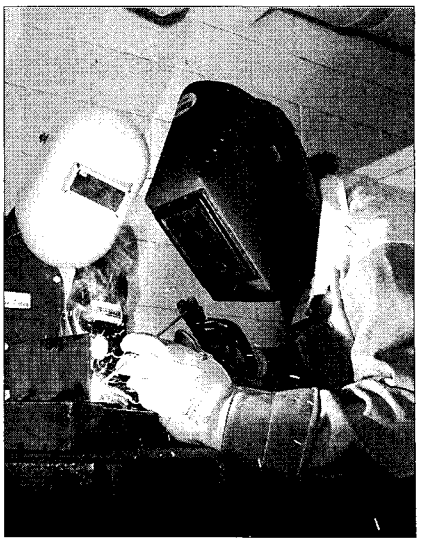
To receive an associate degree, a student must meet one of the following residency options:

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 hours 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.







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, OC awards a certificate of technology in the following fields (refer to individual departmental sections for specific course and semester hour requirements):

Automotive Technology
- *Heating and Air Conditioning Specialist*
- *Drive Train Specialist*
- *Electrical and Electronic Specialist*
- *Automotive Technician*

Building Construction Technology
- *Basic Carpenter Helper*
- *Basic/Intermediate Construction Technician*
- *Basic Cabinetmaker Technician*
- *Construction Estimator*

Computer Information Systems
- *(PC Programming and Internet Development/PC Support Specialist Options)*

Computer Network and Information Technology
- *Network Technician - Microsoft*

Diesel Technology
- *Heavy Equipment Specialist*
- *Diesel Truck Specialist*
- *Diesel Technician*
- *Service Manager*

Drafting Technology
- *Architectural Detailer*
- *Machine Drafting Detailer*
- *Structural Drafting Detailer*
- *Pipe Drafting Detailer*
- *Technical Illustrator*

Electrical/Electronics Technology
- *(Technician/Advanced Technician Options)*

Fire Technology
- *(Basic/Advanced Options)*

Heating, Ventilation and Air Conditioning
- *HVAC Technician (Basic/Intermediate Options)*
- *Sheet Metal Technician*
- *Commercial Refrigeration Maintenance Technician*
- *HVAC Shop Manager*

Machining - Industrial Machinist Technology
- *Machinist*
- *Machine Shop Foreman*
- *Computerized Numerical Control Programmer*
- *Milling Machine Operator*
- *Engine Lathe Operator*

Management
- *General Management*
- *Small Business*
- *Industrial Supervision*
- *Leadership*
- *Management Advanced Skills*

Maintenance Technology
- *Basic Plumbing Technician*

Occupational Safety and Health Technology

Office Systems Technology
- *Accounting Technician*
- *Office Clerk*
- *Office Assistant*
- *Office Management Specialist*
- *Legal Office Clerk*
- *Legal Office Assistant*
- *Legal Office Specialist*
- *Medical Office Clerk*
- *Medical Office Assistant*
- *Medical Office Specialist*

Petroleum Technology
- *Well Head Pumper*
- *Gas Compressor Operator*
- *Gas Plant Operator*
- *Refinery Panel Operator*
- *Corrosion Technician*

Welding - Industrial Welding Technology
- *Certified Welder*
- *General Welder*
- *Pipe Welder*
- *Welding Machine Operator*

Requirements for 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. To receive a certificate of technology, a student must meet the following requirements:

- Over 50 percent of the total certificate hours must have been completed in residence at Odessa College. Also, over 50 percent of the technical/vocational program courses required for the certificate must have been completed in residence at Odessa College.
- Students who are not exempt from the provisions of TASP or not in a TASP-waived certificate program 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 one year active service credit may satisfy PHED requirement, if any, by submitting a copy of Form DD-214 to the Registrar's Office.

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. OC awards a certificate of completion in the following vocational fields (refer to individual departmental sections for specific course and semester hour requirements):

Child and Parent Development
- *Child Care/Preschool Assistant Teacher*
- *Child Development Associate (CDA)*
- *Child Care Management*
- *Child Care Aide*

Cosmetology
- *Instructor*
- *Operator*

Culinary Arts
- *Food Production Cook*

Emergency Medical Services Professional
- *Basic/Intermediate Emergency Medical Technician*
- *Emergency Medical Services Professional - Paramedic*

Human Services
- *Alcohol and Drug Abuse*

Law Enforcement/Criminal Justice
- *County Correctional Officer*
- *Emergency Telecommunications/Dispatcher*
- *Basic Law Enforcement Academy*

Legal Assistant
- *(Legal Assistant/Advanced Legal Assistant Options)*

Phlebotomy

Photography
- *Photo Lab Assistant*
- *Digital Imaging Assistant*
- *Portrait Studio Assistant*

Surgical Technology

Vocational Nursing (LVN)

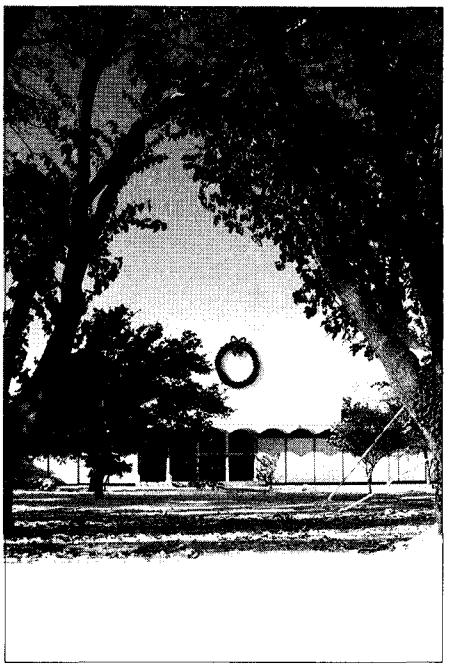
Requirements for Certificates of Completion

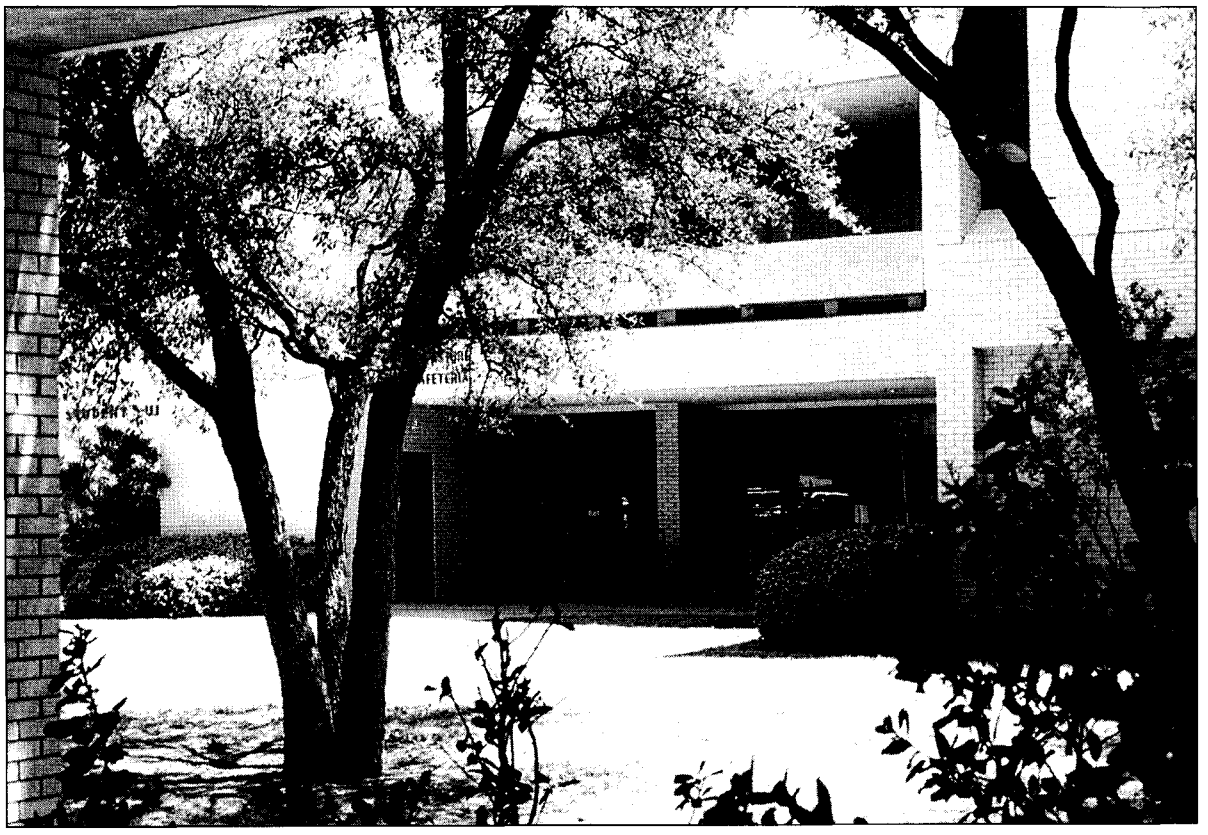
Certificates of completion are awarded for completion of program requirements with a minimum average of "C" (2.0) in all work in certain occupational and technical curricula that concentrate on a specific job skill, licensure requirement or subject matter mastery as prescribed in the Odessa College Catalog or as approved by the respective division dean. Check with the respective program or department chair for information on these certificates. To receive a certificate of completion, a student must meet the following requirements:

- Over 50 percent of the total certificate hours must have been completed in residence at Odessa College. Also, over 50 percent of the technical/vocational program courses required for the certificate must have been completed in residence at Odessa College.
- Students who are not exempt from the provisions of TASP or not in a TASP-waived certificate program 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 one year active service credit may satisfy PHED requirement, if any, by submitting a copy of Form DD-214 to the Registrar's Office.

Award of 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 in residence at Odessa College.





Key To SCANS 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 which are basic to the development of courses. The OC faculty have evaluated all of their courses and written the following course descriptions, keyed to SCANS.

(SCANS 1-3 = 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 INTERRELATIONSHIPS (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

NOTE: Students enrolling in courses with a SCANS rating of 1, 2 or 3 should have a competency at the high school diploma or equivalency level or satisfactory placement score on an appropriate placement exam. Concurrent and early admission students in high school must have the approval of their high school principal or designee. Additional course prerequisites/ corequisites may be found at the end of each course description.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Guide to Course Abbreviations

ACCT ..... see Business Administration
ACNT ..... see Office Systems Technology
AGRI ..... see Agriculture
ANTH ..... see Geology/Anthropology/Geography
ARTS ..... see Art
AUMT ..... see Automotive Technology
BIBL ..... see Social Sciences
BIOL ..... see Biology
BMGT ..... see Management
BUSG ..... see Management
BUSI ..... see Business Administration
CBFM ..... see Air Conditioning/Maintenance Tech
CDEC .. see Child/Parent Development/Tech Prep
CETT ..... see Electrical/Electronics Technology
CHEM ..... see Chemistry
CJCR ..... see Law Enforcement/Criminal Justice
CJLE ..... see Law Enforcement/Criminal Justice
CJSA ..... see Law Enforcement/Criminal Justice
CNBT ..... see Building Construction Technology
COMM ..... see Mass Communication
COSC ..... see Computer Science
CRIJ ..... see Law Enforcement/Criminal Justice
CSME ..... see Cosmetology
CULA ..... see Culinary Arts
DAAC ..... see Human Services
DEMR ..... see Diesel Technology
DFTG ..... see Drafting Technology
ECON ..... see Social Sciences
EEIR ..... see Electrical/Electronics Technology
ELMT ..... see Electrical/Electronics Technology
ELPT ..... see Electrical/Electronics Technology
EMSP ..... see Emergency Medical Services
ENGL ..... see English and Foreign Languages
ENGR ..... see Engineering
EPCT ..... see Occupational Safety and Health
FIRS ..... see Fire Technology
FIRT ..... see Fire Technology
FREN ..... see English and Foreign Languages
GEOG ..... see Geology/Anthropology/Geography
GEOL ..... see Geology/Anthropology/Geography
GERM ..... see English and Foreign Languages
GOVT ..... see Social Sciences
HART ..... see Air Conditioning/Maintenance Tech
HIST ..... see Social Sciences
HPRS ..... see Biology
HRPO ..... see Management
IEIR ..... see Electrical/Electronics Technology
IMED ..... see Management
INMT ..... see Machining
INSR ..... see Management
ITMC ..... see Computer Network/Information
ITNW ..... see Computer Information Systems
ITNW ..... see Computer Network/Information
ITSC ..... see Computer Information Systems
ITSC ..... see Computer Network/Information
ITSC ..... see Office Systems Technology
ITSE ..... see Computer Information Systems
ITSE ..... see Computer Network/Information
ITSW ..... see Computer Information Systems
ITSW ..... see Computer Network/Information
ITSW ..... see Office Systems Technology
LATI ..... see English and Foreign Languages
LGLA ..... see Legal Assistant
LGMT ..... see Management
MATH ..... see Mathematics
MCHN ..... see Machining
MDCA ..... see Clinical Laboratory Sciences
METL ..... see Petroleum Technology
MLAB ..... see Clinical Laboratory Sciences
MRKG ..... see Management
MUAP ..... see Music
MUSI ..... see Music
ORIE ..... see Orientation
OSHT ..... see Occupational Safety/Health
PFPB ..... see Air Conditioning/Maintenance Tech
PHED ..... see Physical and Health Education
PHIL ..... see Social Sciences
PHTC ..... see Photography
PHYS ..... see Physics
POFI ..... see Office Systems Technology
POFL ..... see Office Systems Technology
POFM ..... see Office Systems Technology
POFT ..... see Office Systems Technology
PSTR ..... see Culinary Arts
PSYC ..... see Psychology and Sociology
PTHA ..... see Physical Therapist Assistant
PTRT ..... see Petroleum Technology
QCTC ..... see Occupational Safety and Health
RADR ..... see Radiologic (X-Ray) Technology
READ ..... see Reading
RNSG ..... see Nursing - RN
RSPT ..... see Respiratory Care
RSTO ..... see Culinary Arts
SOCI ..... see Psychology and Sociology
SPAN ..... see English and Foreign Languages
SPCH ..... see Speech
SRGT ..... see Surgical Technology
VNSG ..... see Nursing - RN
VNSG ..... see Nursing - LVN
WDWK ..... see Building Construction Technology
WLDG ..... see Welding

Accounting (see Business Administration)

Agriculture

Faculty: Dr. Shirley Payne, dean.

Courses offered in the agriculture department are directed toward providing the student majoring in an agriculture science or a related field with a broad and sound foundation for advanced study at an upper-level institution or pre-professional preparation in veterinary medicine or wildlife management.

Course of Study for Associate in Science Degree
Agriculture

	Semester Hrs
General Education Requirements	**42**
BIOL 1406 General Biology I	4
CHEM 1311/1111 Gen. Inorganic Chemistry/ Fundamentals of Chem Lab I	4
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
MATH 1314 College Algebra or higher level math	3
MATH 1316 Plane Trigonometry or higher level math	3
PHED (any one-hour activity course)	1
SPCH 1315 Public Speaking	3
Elective	3
Major Requirements	**22-23**
AGRI 1231 The Agricultural Industry	2
AGRI 1309 Computers in Agriculture	3
AGRI 1407 Agronomy	4
AGRI 1419 Animal Science	4
AGRI 2317 Agriculture Economics	3
AGRI 2321 Livestock Evaluation I	3
*AGRI Elective	3 or 4
Total Semester Hours	**64-65**

*Second-year requirements for agriculture electives may be fulfilled by taking any combination of the following courses: AGRI 1413, AGRI 1415, and AGRI 2322. Choice of any elective may depend upon the students' plans for future study. Students should consult with the agriculture faculty for information regarding these courses.

Associate in Science Degree
Agriculture – Equine Emphasis

Through the generous contribution of a prominent West Texas businessman, Odessa College has one of the largest and best-equipped equine facilities in the nation. Expressly donated for the development of the Odessa College rodeo team and students majoring in agriculture with an emphasis in equine science, this facility offers OC students a unique opportunity. The various components of the equine and related agricultural industries have been incorporated into an associate of science degree transferable to several senior institutions. Students should contact the coach of the Odessa College rodeo team and/or director of the Odessa College Rodeo and Agriculture Graham Center for information concerning scholarships and work-study jobs as well as stables for horses.

Course of Study for Associate in Science Degree
Agriculture – Equine Emphasis

	Semester Hrs
General Education Requirements	**42**
BIOL 1406 General Biology I	4
CHEM 1311/1111 Gen. Inorganic Chemistry/ Fundamentals of Chem Lab I	4
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
MATH 1314 College Algebra or higher level math	3
MATH 1316 Plane Trigonometry or higher level math	3
PHED (any one-hour activity course)	1
SPCH 1315 Public Speaking	3
Elective	3
Major Requirements	**21**
AGRI 1231 The Agricultural Industry	2
AGRI 1309 Computers in Agriculture	3
AGRI 1419 Animal Science	4
AGRI 2321 Livestock Evaluation I	3
AGRI 2322 Livestock Evaluation II	3
PHED 1114, PHED 1115, PHED 2116 Beginning, Intermediate and Advanced Horsemanship	3
PHED 1332 Game Skills for Equestrian Sports and Recreation	3
Total Semester Hours	**63**

AGRICULTURE COURSES

AGRI 1131 The Agriculture Industry
(01.0103.5201) (1-0) 1 hour
An introduction course to the field of agriculture to aid in the understanding of the relationship of sciences and other fields of agriculture. Students will be required to read and comprehend extensive agricultural terminology. (SCANS 1) Prerequisite: None.

AGRI 1231 The Agriculture Industry
(01.0103.5201) (2-0) 2 hours
An introduction of the basic components of the agricultural industry in the United States with a special consideration for changing economic focus of the equine industry. (SCANS 1) Prerequisite: None.

AGRI 1309 Computers in Agriculture
(01.0101.5101) (3-0) 3 hours
Introductory course in the application of microcomputers in the agricultural environment. Students will be encouraged to develop a management system in some aspect of the care of horses or other animals associated with the program. Lab fee required. (SCANS 1, 2, 3, 5, 6, 8, 9) Prerequisite: None.

AGRI 1407 Agronomy
(02.0402.5101) (3-3) 4 hours
A basic study of the classification and distribution of farm crops. Students will be required to evaluate and interpret information as it pertains to the study of the importance of good varieties and good seed, crop improvement, seed bed preparation, soils, soil erosion and conservation techniques, commercial fertilizers, crop rotation, crop tillage, harvesting, meadow and pasture management, pesticides, weeds and grasses, and irrigation systems. Decision-making and reasoning skills will be used in the proper application of agronomy principles. (SCANS 6, 9) Prerequisite: None.

AGRI 1413 Economic Entomology
(02.0408.5101) (3-3) 4 hours
A study of the principal insects and pests of crops and livestock, including life history, methods of attack, damage and control. Students will be required to evaluate and interpret information as it pertains to integrated pest management, and biological controls. Collection and mounting of insects is required. Decision-making and reasoning skills will be used in the proper application of agronomy principles. (SCANS 1, 6, 9) Prerequisite: None.

AGRI 1415 Horticulture
(01.0601.5101) (3-3) 4 hours
This course familiarizes the student with the fields of horticulture and the place of horticulture in American agriculture. Students will be required to evaluate and interpret information as it pertains to the study of the structure, growth and development of horticulture plants. Reasoning skills will be used in decisions concerning control of environment and plant growth with considerations of biological competition and progressive improvement of crops. Principles of propagation, greenhouse production of horticultural crops, pruning, pest control and landscaping are included. (SCANS 6, 9) Prerequisite: None.

AGRI 1419 Animal Science
(02.0201.5101) (3-3) 4 hours
An introduction to the importance of the livestock industry in the United States, with emphasis in the state of Texas. Students will be required to read and comprehend extensive terminology including the study of the types and breeds of livestock and the market classes as well as grades of beef cattle, dairy cattle, sheep, swine and horses. Decision-making and reasoning skills will be used in determining principles involving heredity and breeding for improvement, judging, care and management. (SCANS 1, 6, 9) Prerequisite: None.

AGRI 2317 Agriculture Economics
(01.0103.5101) (3-0) 3 hours
A study of the basic concepts and theory of the present economic system through a process of interpretation of written information. Includes an analysis and mathematical calculations of profit margin of farm and ranch enterprises as well as commercial industry, their organization and management, the structure and operation of the marketing system, and political economic setting. Functional and institutional aspects of agricultural finance and state and federal farm programs are covered. (SCANS 1, 3, 6, 7) Prerequisite: None.

AGRI 2321 Livestock Evaluation I
(02.0201.5201) (3-0) 3 hours
An introduction of the basic factors for selection and evaluation of cattle, sheep and swine with a special emphasis on the breeding and performance of horses. (SCANS 1, 6, 9) Prerequisite: None.

AGRI 2322 Livestock Evaluation II
(02.0201.5201) (3-0) 3 hours
A continuation of AGRI 2321 with a special emphasis on the performance and management of horses. (SCANS 1, 6, 9) Prerequisite: None.

Air Conditioning – Heating, Ventilation, Air Conditioning and Maintenance Technology

(formerly listed under Maintenance Technologies)

Faculty: James Mosman, chair; Stan Stallings.

The associate in applied science degree in heating, ventilation and air conditioning (HVAC) technology trains students in 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.

While a certificate of technology with an emphasis in heating, ventilation and air conditioning, or maintenance 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.

The associate in applied science degree in maintenance technology 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

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

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
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 higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Technical Core	**16**
CBFM 1424 Interior Maintenance (MAIN 2404)	4
EEIR 1409 National Electrical Code (ELEC 2410)	4
MCHN 1401 Sheet Metal I (HVAC 1405)	4
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4
Major Requirements	**31**
HART 1403 A/C Control Principles (HVAC 1400)	4
HART 1407 Refrigeration Principles (HVAC 1401)	4
HART 1442 Commercial Refrigeration (HVAC 1403)	4
HART 1445 Gas and Electric Heating (HVAC 1404)	4
HART 1492 Special Topics: Mechanical Code (HVAC 2405)	4
HART 2380 Cooperative Education – Heating, Air Conditioning and Refrigeration (HVAC 2377)	3
HART 2445 Air Conditioning Systems Design (HVAC 2302)	4
HART 2436 Troubleshooting (HVAC 2404)	4
Total Semester Hours	**67**

Course of Study for Associate in Applied Science Degree
Maintenance Technology

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
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 higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Technical Core	**12**
CBFM 1424 Interior Maintenance (MAIN 2404)	4
EEIR 1409 National Electrical Code (ELEC 2410)	4
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4

Major Requirements **33**
- CBFM 2381 Cooperative Education – Building/Property Maintenance and Manager (MAIN 2377) 3
- CNBT 1342 Building Codes and Inspection 3
- CNBT 1416 Construction Technology I (BLDG 1601) 4
- HART 1403 A/C Control Principles (HVAC 1400) .. 4
- HART 1407 Refrigeration Principles (HVAC 1401) . 4
- HART 1445 Gas and Electric Heating (HVAC 1404) .. 4
- HART 1449 Heat Pumps (HVAC 1404) 4
- HART 2445 Air Conditioning Systems Design (HVAC 2302) 4
- PFPB 1317 Lawn Irrigation Systems (MAIN 1391) .. 3

Total Semester Hours **65**

Certificates of Technology in HVAC and Maintenance

Level I certificates are TASP-waived.

Certificates of technology are available in the following job-specific fields. See the program chair for course requirements.

Level I – Basic HVAC Technician

Semester Hrs
- COSC 1301 Introduction to Computer Systems 3
- HART 1403 A/C Control Principles (HVAC 1400) .. 4
- HART 1407 Refrigeration Principles (HVAC 1401) . 4
- HART 1445 Gas and Electric Heating (HVAC 1404) . 4
- HART 1492 Special Topics: Mechanical Code (HVAC 2405) 4
- PSYC 2302 Applied Psychology 3

Total Semester Hours **22**

Level I – Sheet Metal Technician

Semester Hrs
- COSC 1301 Introduction to Computer Systems 3
- HART 1407 Refrigeration Principles (HVAC 1401) . 4
- HART 2445 Air Conditioning Systems Design (HVAC 2302) 4
- MCHN 1401 Sheet Metal (HVAC 1405) 4
- PSYC 2302 Applied Psychology 3

Total Semester Hours **18**

Level I – Commercial Refrigeration Maintenance Technician

Semester Hrs
- CBFM 1424 Interior Maintenance (MAIN 2404) 4
- COSC 1301 Introduction to Computer Systems 3
- HART 1403 A/C Control Principles (HVAC 1400) .. 4
- HART 1407 Refrigeration Principles (HVAC 1401) . 4
- HART 1442 Commercial Refrigeration (HVAC 1403) 4
- HART 1445 Gas and Electric Heating (HVAC 1404) .. 4
- HART 1449 Heat Pumps (HVAC 1404) 4
- HART 1492 Special Topics: Mechanical Code (HVAC 2405) 4
- HART 2436 Troubleshooting (HVAC 2404) 4
- PSYC 2302 Applied Psychology 3

Total Semester Hours **38**

Level I – Basic Plumbing Technician

Semester Hrs
- CBFM 1424 Interior Maintenance (MAIN 2404) 4
- CNBT 1416 Construction Technology I 4
- COSC 1301 Introduction to Computer Systems 3
- PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402) 4
- PSYC 2302 Applied Psychology 3

Total Semester Hours **18**

Level II – Intermediate HVAC Technician

Semester Hrs
- COSC 1301 Introduction to Computer Systems 3
- EEIR 1409 National Electrical Code (ELEC 2410) 4
- HART 1403 A/C Control Principles (HVAC 1400) .. 4
- HART 1407 Refrigeration Principles (HVAC 1401) . 4
- HART 1442 Commercial Refrigeration (HVAC 1403) 4
- HART 1445 Gas and Electrical Heating (HVAC 1404) 4
- HART 1451 Energy Management (HVAC 2409) ... 4
- HART 1492 Special Topics: Mechanical Code (HVAC 2405) 4
- HART 2445 Air Conditioning Systems Design (HVAC 2302) 4
- MATH 1314 College Algebra or higher level math .. 3
- PFPB 1317 Lawn Irrigation Systems (MAIN 1391) ... 3
- PSYC 2302 Applied Psychology 3

Total Semester Hours **44**

Level III – HVAC Manager

May only be awarded along with or following completion of associate or higher-level degree.

Semester Hrs
- BMGT 1301 Supervision (MGMT 1301) 3
- BMGT 1303 Principles of Management (MGMT 1302) 3
- HRPO 1311 Human Relations (MGMT 2304) 3
- HRPO 2301 Human Resources Management 3

Total Semester Hours **12**

HEATING, VENTILATION, AIR CONDITIONING COURSES

HART 1403 A/C Control Principles
[formerly HVAC 1400]
(15.0501) (3-3) 4 hours
A basic study of electrical, pressure and temperature controls including motor starting devices, operating relays, and troubleshooting safety controls and devices. Emphasis on use of wiring diagrams to analyze high and low voltage circuits. A review of Ohm's law as applied to A/C controls and circuits. The student will test, repair, and/or replace motor starting and protection devices; test, repair, and/or replace electrical components; and read, draw, and interpret high and low voltage control circuits. Lab fee required. (SCANS 1, 3, 5, 8) Prerequisite: None. Corequisite: HART 1407.

HART 1407 Refrigeration Principles
[formerly HVAC 1401]
(15.0501) (3-3) 4 hours
An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment and refrigeration components. The student will identify the components and explain the application and operation of the basic refrigeration cycle; explain theories of thermodynamics and heat transfer; demonstrate proper application and use of tools, test equipment, and safety procedures; and demonstrate accepted refrigeration applications. Lab fee required. (SCANS 1, 5, 8, 9) Prerequisite: None. Corequisite: HART 1403.

HART 1442 Commercial Refrigeration
[formerly HVAC 1403]
(15.0501) (3-3) 4 hours
Theory of and practical application in the maintenance of commercial refrigeration; high, medium and low temperature applications and ice machines. The student will explain and apply high, medium, and low temperature systems operation and explain and apply ice machine and packaged refrigeration system operation. The student will explain application and conversion procedures – "SNAP" (Significant New Alternative Refrigeration Program) – of refrigerants related to specific systems. Lab fee required. (SCANS 3, 5, 8, 9) Prerequisite: None.

HART 1445 Gas and Electric Heating
[formerly HVAC 1404]
(15.0501) (3-3) 4 hours
A study of the procedures and principles used in servicing heating systems including gas fired and electric furnaces. The student will identify different types of gas furnaces; identify and discuss component operation of gas furnaces; service and troubleshoot gas furnaces; perform safety inspections on gas and electric furnaces; identify unsafe operation of gas furnaces; identify and discuss component operation of electric furnaces; and service and troubleshoot electric furnaces. Lab fee required. (SCANS 5, 8, 9) Prerequisite: None.

HART 1449 Heat Pumps
[formerly HVAC 1404]
(15.0501) (3-3) 4 hours
A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow and other topics related to heat pump systems. The student will explain a reverse cycle system; list the mechanical and electrical components for the heat pump operation; and explain the operation of the heat pump model including cooling, heating, defrost, emergency heat, and auxiliary heat mode. The student will identify and explain different methods of accomplishing defrost; charge a system correctly in the heating and cooling mode; troubleshoot electrical and mechanical components; perform tests for adequate air flow; and determine balance point and C.O.P. (coefficiency of performance). Lab fee required. (SCANS 5, 8, 9) Prerequisite: None.

HART 1451 Energy Management
[formerly HVAC 2409]
(15.0503) (3-3) 4 hours
Basic heat transfer theory; sensible and latent heat loads; building envelope construction; insulation, lighting and fenestration types; and conducting energy audit procedures. The course also develops energy audit recommendations based on local utility rates, building use and construction. Laboratory activities include developing energy audit reports, installing energy saving devices and measuring energy consumption. Lab fee required. (SCANS 3, 5, 6, 8) Prerequisite: None.

HART 1492 Special Topics in Energy Management and Systems Technology/ Technicians: Mechanical Code
[formerly HVAC 2405]
(15.0503) (3-3) 4 hours
Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the

student. This course is an exercise using the Uniform Mechanical Code that is the book used in the open book exam for the Texas Department of Licensing and Regulation's state air conditioning exam for Licensure. This course is designed to be a capstone experience. Lab fee required. (SCANS 1, 2, 7, 8) Prerequisite: Consent of department chair.

HART 2380 Cooperative Education – Heating, Air Conditioning, and Refrigeration [formerly HVAC 2377]

(15.0501) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

HART 2436 Troubleshooting [formerly HVAC 2404]

(15.0501) (3-3) 4 hours

An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and systems problems including conducting performance tests. The student will test and diagnose components, systems, and accessories; and exhibit knowledge of system's sequence of operation, accessory application, and component operation. Lab fee required. (SCANS 1, 5, 7, 8, 9) Prerequisites: HART 1403 and HART 1407.

HART 2445 Air Conditioning Systems Design [formerly HVAC 2302]

(15.0501) (4-0) 4 hours

A study of the properties of air and results of cooling, heating humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. The student will calculate heat loss and heat gain; design a complete duct system; size heating and cooling equipment to the structure; perform a load calculation using Manual J or other load calculation forms; and balance air flow on a duct system. (SCANS 1, 3, 8) Prerequisite: None.

MAINTENANCE TECHNOLOGY COURSES

CBFM 1424 Interior Maintenance [formerly MAIN 2404]

(46.0401) (3-3) 4 hours

Application of building repair principles with emphasis on minor repair of walls, floors, and ceilings. The student will identify materials needed for repairing and maintaining floors, walls, ceiling, and trim; make minor repairs to walls, floors, ceilings and trim; and perform maintenance on partitions, doors, and accessories. Lab fee required. (SCANS 1, 3, 6, 8, 9) Prerequisite: None.

CBFM 2381 Cooperative Education – Building/Property Maintenance and Manager [formerly MAIN 2377]

(46.0401) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

PFPB 1317 Lawn Irrigation Systems [formerly MAIN 1391]

(46.0501) (2-4) 3 hours

In-depth instruction in the design and layout installation of residential lawn irrigation systems. The student will design a lawn irrigation system; write a material take-off sheet; install a lawn irrigation system; and identify and correct problem systems. Lab fee required. (SCANS 1, 3, 6, 8, 9) Prerequisite: None.

PFPB 1413 Introduction to the Plumbing Trade [formerly MAIN 1402]

(46.0502) (3-3) 4 hours

An introduction to the plumbing craft including mathematical operations applicable to the plumbing trade, hand tools, power tools, safety practices, and material identification. 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. Lab fee required. (SCANS 1, 3, 5, 8) Prerequisite: None.

Anthropology (see Geology, Anthropology, and Geography)

Art

Faculty: Steve Goff, chair; Barry Phillips, III; Barry Phillips.

The Odessa College art department exists to provide quality art education for all members of the community. A professionally active faculty maintains labs for design, drawing, painting, printmaking, photography, sculpture, and ceramics. Art students learn to create and evaluate visual images in order to develop a critical awareness of the visual environment. The department welcomes all students who are interested in learning about visual art and sponsors scholarships for students considering art as a major.

The following curriculum has been designed as a guide for those students wishing to prepare for a bachelor's degree in art education, studio art or commercial art.

Course of Study for Associate in Arts Degree

Art

	Semester Hrs
General Education Requirements	**38-40**
COSC 1301 Introduction to Computer Systems	3
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
Major Requirements	**27**
ARTS 1303 Art History I	3
ARTS 1304 Art History II	3
ARTS 1311 Design I	3
ARTS 1312 Design II	3
ARTS 1316 Drawing I	3
ARTS 1317 Drawing II	3
**Approved electives	9
Total Semester Hours	**65-67**

*Six to eight semester hours in same discipline.
**Any three sophomore level ARTS courses .

ART COURSES

ARTS 1301 Art Appreciation

(50.0703.5126) (3-0) 3 hours
Develops the ability to enjoy visual art and understand its importance. Introduces basic art theory, forms, and history. (SCANS 6, 9) Prerequisite: None.

ARTS 1303 Art History I

(50.0703.5226) (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, 9) Prerequisite: None.

ARTS 1304 Art History II

(50.0703.5226) (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, 9) Prerequisite: None.

ARTS 1311 Design I

(50.0401.5326) (2-4) 3 hours
Develops the skill to create two-dimensional designs using drawing, painting, collage, and photographic media. Introduces the principles/ elements of two dimensional design, plus basic art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: None.

ARTS 1312 Design II

(50.0401.5326) (2-4) 3 hours
Develops the skill to create three-dimensional designs using wood, clay, and metals. Introduces the principles/elements of three-dimensional design, plus basic art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: None.

ARTS 1316 Drawing I

(50.0705.5226) (2-4) 3 hours
Develops the skill to create drawings from careful observation of the visual environment. Emphasizes line and value drawings in pencil, charcoal, and ink. Introduces basic art concepts, techniques, and media essential to the

organization and understanding of visual information. (SCANS 6, 9) Prerequisite: None.

ARTS 1317 Drawing II

(50.0705.5226) (2-4) 3 hours
Develops the skill to create expressive drawings. Emphasizes the use of color pencil and pastels. Requires creative thinking in order to develop original images. Presents basic art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 1316.

ARTS 1325 Drawing and Painting

(designed for non-art majors)
(50.0708.5126) (3-0) 3 hours
Develops the skill to create drawings and paintings. Presents beginning techniques from a variety of subjects. Designed for non-art majors who desire art as an elective, life enrichment, or continuing education. (SCANS 6, 9) Prerequisite: None.

ARTS 2316 Painting I

(50.0708.5226) (2-4) 3 hours
Develops the skill to create expressive paintings. Emphasizes use of acrylic paint and proper preparation of canvas and wooden supports. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisites: ARTS 1316 and ARTS 1311 or instructor approval.

ARTS 2317 Painting II

(50.0708.5226) (2-4) 3 hours
Develops the skill to create a series of paintings emphasizing individual expression. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 2316.

ARTS 2323 Figure Drawing I

(50.0705.5326) (2-4) 3 hours
Develops skill in drawing the human figure. Emphasizes handling of gesture, volume, anatomy and proportion using a variety of media. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 1316 or instructor approval.

ARTS 2324 Figure Drawing II

(50.0705.5326) (2-4) 3 hours
Develops the skill to create a series of figure drawings emphasizing individual expression. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 2323.

ARTS 2326 Sculpture I

(50.0709.5126) (2-4) 3 hours
Develops the skill to create expressive sculpture using clay, wood, and metals. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. Lab fee required. (SCANS 6, 9) Prerequisite: ARTS 1312 or instructor approval.

ARTS 2327 Sculpture II

(50.0709.5126) (2-4) 3 hours
Develops the skill to create a sculpture series emphasizing individual expression in a particular sculpture medium and technique. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. Lab fee required. (SCANS 6, 9) Prerequisite: ARTS 2326.

ARTS 2333 Printmaking I

(50.0710.5126) (2-4) 3 hours
Develops the skill to create original prints using relief, intaglio, and screen techniques. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 1316 or instructor approval.

ARTS 2334 Printmaking II

(50.0710.5126) (2-4) 3 hours
Develops the skill to create a series of prints emphasizing individual expression in a particular printmaking medium and technique. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 2333.

ARTS 2346 Ceramics I

(50.0711.5126) (2-4) 3 hours
Develops the skill to create original pottery using coil, slab, and wheel techniques. Includes bisque, glaze, sawdust, and raku firings. Presents advanced art concepts, technique, and media essential to the organization and understanding of visual information. Lab fee required. (SCANS 6, 9) Prerequisite: None.

ARTS 2347 Ceramics II

(50.0711.5126) (2-4) 3 hours

Develops the skill to create pottery emphasizing individual expression. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. Lab fee required. (SCANS 6, 9) Prerequisite: ARTS 2346.

ARTS 2356 Photography I
COMM 1318 Photography II

(50.0605.5126) (2-4) 3 hours

Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. The student will assess and select equipment, supplies and techniques to incorporate basic theories of film, exposure, development, filters and printing. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisite: None.

ARTS 2357 Photography II
COMM 1319 Photography II

(50.0605.5226) (2-4) 3 hours

Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Designed for additional experience in the photographic medium. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisite: COMM 1318 or ARTS 2356 or its equivalent.

ARTS 2366 Watercolor I

(50.0708.5326) (2-4) 3 hours

Develops the skill to create expressive watercolor paintings. Includes transparent wash and opaque painting techniques. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 1316 or instructor approval.

ARTS 2367 Watercolor II

(50.0708.5326) (2-4) 3 hours

Develops the skill to create a series of watercolor paintings emphasizing individual expression. Requires creative thinking in order to develop original images. Presents advanced art concepts, techniques, and media essential to the organization and understanding of visual information. (SCANS 6, 9) Prerequisite: ARTS 2366.

Automotive Technology

Faculty: James McCutcheon, chair.

Maintaining and servicing automobiles and equipment is a thriving business and a very important activity in the American economy. The automotive service field is so widespread and fast growing that many excellent career opportunities are open to the person with proper qualifications. Completion of this program will offer students the opportunity to apply for an entry-level career as a technician in any one of several service specialist options.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward a degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Automotive Technology

	Semester Hrs
General Education Requirements	**18**
COSC 1301 Introduction to Computer Systems	3
ENGL 1312 Report Writing or ENGL 1301 Composition and Rhetoric	3
GOVT 2301 U.S. Government and Texas Government or GOVT 2302 American National Government	3
MATH 1314 College Algebra or higher level math	3
PHED 1306 First Aid	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**41**
AUMT 1206 Automotive Engine Removal and Installation	2
AUMT 1241 Heating and Air Conditioning Theory or AUMT 1249 Automotive Electronics Theory or AUMT 1257 Automotive Brake Systems	2
AUMT 1266 Practicum – Automotive Mechanics Technician	2
AUMT 1319 Automotive Engine Repair	3
AUMT 1407 Automotive Electrical Systems	4
AUMT 1416 Suspension and Steering or AUMT 1445 Automotive Heating and Air Conditioning or AUMT 2443 Automotive Emissions Licensing Preparation	4
AUMT 2215 Theory of Engine Performance Analysis I	2
AUMT 2311 Automotive Electronic Controls or AUMT 2313 Manual Drive Train and Axles	3
AUMT 2317 Engine Performance Analysis I	3
AUMT 2380 Cooperative Education – Automotive Mechanic/Technician	3
AUMT 2421 Automotive Electrical Lighting and Accessories or AUMT 2425 Automatic Transmission and Transaxle or DEMR 2446 Advanced Heating, Ventilation, and Air Conditioning	4
AUMT 2434 Engine Performance Analysis II	4
AUMT 2537 Automotive Electronics	5
Related Requirements	**5**
HRPO 1191 Special Topics in Human Resources Management	1
WLDG 1421 Introduction to Welding Fundamentals	4
Total Semester Hours	**64**

Certificates of Technology in Automotive Technology

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

Level I certificates are TASP-waived.

Level I – Automotive Technician

	Semester Hrs
COSC 1301 Introduction to Computers	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
AUMT 1206 Automotive Engine Removal and Installation	2
AUMT 1266 Practicum – Automotive Mechanics Technician	2
AUMT 1319 Automotive Engine Repair	3
AUMT 1407 Automotive Electrical Systems	4
AUMT 2215 Theory of Engine Performance Analysis I	2
AUMT 2317 Engine Performance Analysis I	3
AUMT 2434 Engine Performance Analysis II	4
HRPO 1191 Special Topics in Human Resource Management	1
WLDG 1421 Introduction to Welding Fundamentals	4
Total Semester Hours	**31**

Level II – Option I
Drive Train Specialist

The 31 hours specified in level I certificate plus the following courses:

	Semester Hrs
AUMT 1257 Automotive Brake Systems	2
AUMT 1416 Suspension and Steering	4
AUMT 2313 Manual Drive Train and Axles	3
AUMT 2380 Cooperative Education – Auto/ Automotive Mechanic/Technician	3
AUMT 2425 Automatic Transmissions and Transaxle	4
AUMT 2537 Automotive Electronics	5
Total Semester Hours	**52**

Level II – Option II
Electrical and Electronic Specialist

The 31 hours specified in level I certificate plus the following courses:

	Semester Hrs
AUMT 1249 Automotive Electronics Theory	2
AUMT 2311 Automotive Electronic Controls	3
AUMT 2380 Cooperative Education – Auto/Automotive Mechanic/Technician	3
AUMT 2421 Automotive Electrical, Lighting, and Accessories	4
AUMT 2443 Automotive Emissions Licensing Preparation	4
AUMT 2537 Automotive Electronics	5
Total Semester Hours	**52**

Level II – Option III
Heating and Air Conditioning Specialist

The 31 hours specified in level I certificate plus the following courses:

	Semester Hrs
AUMT 1241 Heating and Air Conditioning Theory	2
AUMT 1445 Automotive Heating and Air Conditioning	4
AUMT 2311 Automotive Electronic Controls	3
AUMT 2380 Cooperative Education – Auto/Automotive Mechanic/Technician	3
AUMT 2537 Automotive Electronics	5
DEMR 2446 Advanced Heating, Ventilation and Air Conditioning (HVAC)	4
Total Semester Hours	**52**

Course of Study for Advanced Skills Certificate (Level III)

Level III – Service Manager Certificate

May be awarded along with or following completion of associate or higher degree.

	Semester Hrs
General Education Requirements	**9**
ACCT 1370 Introduction to College Accounting	3
AUMT 2301 Automotive Management	3
HRPO 1311 Human Relations	3
Total Semester Hours	**9**

AUTOMOTIVE TECHNOLOGY COURSES

AUMT 1206 Automotive Engine Removal and Repair
(47.0604) (1-2) 2 hours
Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 10, 11) Corequisite: AUMT 1319.

AUMT 1241 Heating and Air Conditioning Theory
(47.0604) (2-0) 2 hours
Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis of system malfunctions. Includes manual and electronic climate control systems. (SCANS 1, 2, 3, 4, 5, 6, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1249 Automotive Electronics Theory
(47.0604) (2-0) 2 hours
A course in automotive technology including electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1257 Automotive Brake Systems [formerly AUTO 1504/AUMT 1410]
(47.0604) (1-3) 2 hours
Theory and principles related to the design, operation, and servicing of automotive braking systems. Includes disc and drum-type brakes,

hydraulic systems, power assist components, anti-lock brake systems, and diagnosis and reconditioning procedures. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1266 Practicum – Automotive Mechanics Technicians

(47.0604) (0-15) 2 hours

An intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. (SCANS: 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1319 Automotive Engine Repair [formerly AUTO 1502/AUMT 1419]

(47.0604) (2-3) 3 hours

Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification, and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Study of engine designs and special tools needed to repair and maintain engines to manufactures specifications. Students will use service manual to organize technical information, diagnose, and read precision clearances. Student will learn to read and use precision measurement instruments. Reading of technical manuals required. Lab fee required. (Scans 1, 2, 3, 4, 5, 7, 8, 9, 10, 11) Corequisite: AUMT 1206.

AUMT 1407 Automotive Electrical Systems [formerly AUTO 2501]

(47.0604) (2-6) 4 hours

An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematics diagrams and service manuals. May be taught manufacturer specific. 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 systems. The student will gain work experience working as a team on lab projects and develop communication skills for customer relations. The reading of technical materials is required. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1416 Suspension and Steering [formerly AUTO 1504]

(47.0604) (2-6) 4 hours

Theory and operation of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific. Students working as a team, yet each displaying individual responsibility, will learn 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 alignments. The student will calculate alignment measures in degrees, fractions, and metrics. Lab exercises are designed to develop reasoning and decision making ability and improving self-esteem regarding alignment problems. The reading of technical materials is required. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 1445 Automotive Heating and Air Conditioning [formerly AUTO 2502]

(47.0604) (2-6) 4 hours

Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific. The students 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 gages and calculating correct additions of oil and refrigerant gases will give the students a good foundation in the air conditioning service business. The students' self-esteem will be improved as they communicate with co-workers to acquire new technical skills and diagnose problems and malfunctions of the A/C system. The reading of technical materials is required. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2215 Theory of Engine Performance Analysis I

(47.0604) (2-0) 2 hours

Theory of operation and diagnosis of basic engine dynamics including the study of the ignition system, fuel delivery systems, and the use of engine performance diagnostic equipment. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 10, 11) Corequisite: AUMT 2317.

AUMT 2301 Automotive Management

(47.0604) (2-2) 3 hours

Instruction in human relations, customer relations, and customer satisfaction. Emphasis on management techniques and building relationships between the service department and the customer. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2311 Automotive Electronic Controls

(47.0604) (2-4) 3 hours

Addresses electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment as applied to automotive technology. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2313 Manual Drive Train and Axles

[formerly AUTO 1503/AUMT 2413]

(47.0604) (2-4) 3 hours

A study of automotive clutches, clutch operation devices, standard transmissions, transaxles, and differentials with emphasis on the diagnosis and repair of transmissions and drive lines. May be taught manufacturer specific. 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. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2317 Engine Performance Analysis I

[formerly AUTO 2503/AUMT 2417]

(47.0604) (2-4) 3 hours

Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 10, 11) Corequisite: AUMT 2215

AUMT 2328 Automotive Service

(47.0604) (2-2) 3 hours

Mastery of automotive vehicle service and component systems repair. Emphasis on mastering current automotive competencies covered in related theory courses. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2331 Theory of Engine Performance Analysis II

(47.0604) (2-2) 3 hours

Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2340 Automotive Alternative Fuels

(47.0604) (2-2) 3 hours

A study of the composition and use of various alternative automobile fuels including retrofit procedures and applications, emission standards, availability, and cost effectiveness. Overview of federal and state legislation concerning fuels. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 10, 11) Prerequisite: Consent of department chair.

AUMT 2380 Cooperative Education – Auto/Automotive Mechanic/Technician

[formerly AUTO 2377]

(47.0604) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2421 Automotive Electrical Lighting and Accessories

(47.0604) (2-6) 4 hours

Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2425 Automatic Transmission and Transaxle [formerly AUTO 1503]

(47.0604) (2-6) 4 hours

A study of the operation, hydraulic principles, and related circuits of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and proper repair techniques. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2434 Engine Performance Analysis II [formerly AUTO 2505]

(47.0604) (2-6) 4 hours

Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Introduces fundamentals of solid state devices such at FET, bipolar and uni-junction transistors, the students will better understand LED's solid state regulators, electronic spark control timing, amplifiers, buffers, SCR's, RAMS, PROMS, and EPROM. 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. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2443 Automotive Emissions Licensing Preparation

(47.0604) (2-6) 4 hours

A study of state and federal legislation regarding automotive emissions, automotive emissions systems operation, testing, and repair. Preparation for licensing. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2455 Automotive Engine Machining

(47.0604) (2-6) 4 hours

An in-depth study of precision engine rebuilding, cylinder reconditioning, and crack repair. Instruction in machines and equipment necessary to complete an engine repair. May be taught manufacturer specific. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisite: Consent of department chair.

AUMT 2537 Automotive Electronics [formerly AUTO 2504]

(47.0604) (4-4) 5 hours

Topics address electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment as applied to automotive technology. May be taught manufacturer specific. Students will study Ohms Law, power law, principles of direct current, and alternating current, induction, capacitance, impedance, and other related electrical principles. Performing under time restraints during lab exercises, students improve reasoning and decision making abilities. A scientific calculator is required. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

Biology

Faculty: Steve Sofge, chair; Paul Burton, Dr. Chet Cooper, Kristi Deramus, Rebecca Hennig.

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

Biology

	Semester Hrs
General Education Requirements	**60**
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
COSC 1415 Introduction to Computer Science	4
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
MATH 1314 College Algebra or higher level math	3
MATH 1316 Plane Trigonometry or higher level math	3
PHED (any two one-hour activity courses)	2
PHYS 1401 College Physics I	4
PHYS 1402 College Physics II	4
SPCH 1315 Public Speaking	3
Major Requirements	**11-13**
BIOL 1406 General Biology I	4
BIOL 1407 General Biology II	4
*Electives	3-5
Total Semester Hours	**71-73**

*Requirements for biology electives may be fulfilled by taking any combination of the following courses: AGRI 1407, Agronomy; AGRI 1413, Economic Entomology; AGRI 1415, Horticuture; BIOL 2306, Environmental Biology; BIOL 2470, 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

(32.0106.5103) (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 teach students 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 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 and anatomy. Lab fee required. (SCANS 1, 3, 6, 9) Prerequisite: None.

BIOL 1406 General Biology I

(26.0101.5103) (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 and genetics. A taxonomic survey of the five kingdoms is also covered. In laboratory activities students learn to perform basic mathematical 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 required. (SCANS 1, 3, 6, 9) Prerequisite: Pass reading and math on TASP.

BIOL 1407 General Biology II

(26.0101.5103) (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 mathematical 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: BIOL 1406.

BIOL 1408 Principles of Biology

(26.0101.5103) (3-3) 4 hours

Students with majors requiring only one semester of biology learn to understand and interpret biological terms, especially as they apply to 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. Lab fee required. (SCANS 3, 6, 9) Prerequisite: None.

BIOL 2306 Environmental Biology

(03.0102.5101) (2-1) 3 hours

An investigation into the interdisciplinary study of basic ecological principles and relationships between living organisms. Emphasis is placed on human interaction with aquatic and terrestrial communities and how these relationships affect conservation, pollution, waste management, depletion of non-renewable resources as well as environmental economics and politics. (SCANS 1, 6, 9) Prerequisite: One semester of either biology or geology or consent of the instructor.

BIOL 2401 Anatomy & Physiology I

(26.0706.5103) (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 11 systems are also presented. In laboratory investigations students acquire knowledge about bones, muscular function and microscopic examination of tissues. Lab fee is required. (SCANS 1, 3, 6, 9) Prerequisites: Pass reading and math on TASP. In addition, demonstration of basic competence in science, either by passing a placement exam, or credit with a grade of "C" or better in BIOL 0371 or BIOL 1406, or completion of CHEM 1111 and CHEM 1311, or consent of the course instructor.

BIOL 2402 Anatomy & Physiology II

(26.0706.5103) (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 11 systems is further gained and reinforced through the hands-on use of anatomical specimens. Lab fee required. (SCANS 1, 6, 9) Prerequisites: BIOL 2401 or consent of the instructor.

BIOL 2404 Human Anatomy & Physiology

(26.0706.5103) (3-3) 4 hours

In this one semester course students learn scientific terminology, specific information and concepts about the anatomy and physiology of the 11 body systems. In laboratory exercises students learn mathematical calculations for conversions between the metric and English systems of measurement, the anatomy of muscles, bones, nervous organs, blood vessels and endocrine glands, plus various organs of other systems. Lab fee required. (SCANS 1, 3, 6, 9) Prerequisite: None.

BIOL 2420 Microbiology

(26.0501.5103) (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 required. (SCANS 1, 3, 6, 9) Prerequisites: BIOL 1406 and BIOL 1407, or BIOL 2401 and BIOL 2402, or CHEM 1111 and CHEM 1311 or consent of the instructor.

BIOL 2428 Comparative Anatomy

(26.0701.5303) (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) Prerequisites: BIOL 1406 and BIOL 1407 or consent of the instructor.

BIOL 2470 Marine Ecology

(03.0102.7101) (12-12) [4 weeks] 4 hours

A 13-day course extended over a four-week period that includes a pre-trip orientation, an 11-day field trip to Puerto Penasco, Sonora, Mexico, and a post-trip student research presentation and summary discussions. This course is offered during the Midwinter Session and between spring and summer semesters. The course involves a comprehensive and systematic study of intertidal (littoral) marine organisms, including: field observations, collecting, preservation techniques, classification, life histories, organism associations and communities, and ecological adaptations. 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.

HPRS 1106 Medical Terminology

[formerly BIOL 1170]

(51.9999) (1-0) 1 hour

A study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures. (SCANS 1) Prerequisite: None.

Broadcasting (See Mass Communication)

Building Construction Technology

(formerly listed under Maintenance Technologies)

Faculty: James Mosman, chair.

The associate in applied science degree in building construction technology 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. Further instruction includes blueprint reading, study of building codes and specifications, and cabinet making.

While a certificate of technology with an emphasis in building construction 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Building Construction Technology

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
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 higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Technical Core	**16**
CBFM 1424 Interior Maintenance (MAIN 2404)	4
EEIR 1409 National Electrical Code (ELEC 2410/IEIR 1491)	4
HART 1403 A/C Control Principles (HVAC 1400)	4
HART 1407 Refrigeration Principles (HVAC 1401)	4
Major Requirements	**30**
CNBT 1342 Building Codes and Inspections	3
CNBT 1416 Construction Technology I (BLDG 1601)	4
CNBT 1446 Construction Estimating I (BLDG 2601)	4
CNBT 1450 Construction Technology II (BLDG 1602)	4
CNBT 1453 Construction Technology III (BLDG 1603)	4
CNBT 2380 Cooperative Education – Construction/Building Technology/ Technician (BLDG 2377)	3
CNBT 2439 Construction Technology IV (BLDG 1604)	4
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4
Total Semester Hours	**66**

Certificates of Technology in Building Construction

Level I certificates are TASP-waived.

Certificates of technology are available in the following job-specific fields. See the program chair for course requirements.

Level I – Basic Carpenter Helper

	Semester Hrs
CNBT 1342 Building Codes and Inspection	3
CNBT 1416 Construction Technology I (BLDG 1601)	4
CNBT 1450 Construction Technology II (BLDG 1602)	4
COSC 1301 Introduction to Computer Systems	3
PSYC 2302 Applied Psychology	3
Total Semester Hours	**17**

Level I – Basic Construction Technician

	Semester Hrs
CNBT 1342 Building Codes and Inspection	3
CNBT 1416 Construction Technology I (BLDG 1601)	4
CNBT 1450 Construction Technology II (BLDG 1602)	4
CNBT 1453 Construction Technology III (BLDG 1603)	4
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4
Total Semester Hours	**19**

Level I – Intermediate Construction Technician

	Semester Hrs
CBFM 1424 Interior Maintenance (MAIN 2404)	4
CNBT 1342 Building Codes and Inspection	3
CNBT 1416 Construction Technology I (BLDG 1601)	4
CNBT 1450 Construction Technology II (BLDG 1602)	4
EEIR 1409 National Electric Code (ELEC 2410/IEIR 1491)	4
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4
Total Semester Hours	**23**

Level I – Basic Cabinetmaker Technician

	Semester Hrs
CBFM 1424 Interior Maintenance (MAIN 2404)	4
CNBT 1416 Construction Technology I (BLDG 1601)	4
COSC 1301 Introduction to Computer Systems	3
PSYC 2302 Applied Psychology	3
WDWK 1413 Cabinet Making (BLDG 2603)	4
Total Semester Hours	**18**

Level II – Construction Estimator

	Semester Hrs
CBFM 1424 Interior Maintenance (MAIN 2404)	4
CNBT 1342 Building Codes & Inspection	3
CNBT 1416 Construction Technology I (BLDG 1601)	4
CNBT 1450 Construction Technology II (BLDG 1602)	4
COSC 1301 Introduction to Computer Systems	3
ENGL 1312 Report Writing	3
HART 2445 A/C Design (HVAC 2302)	4
EEIR 1409 National Electric Code (ELEC 2410/IEIR 1491)	4
MATH 1332 Structures of College Math I	3
PFPB 1413 Introduction to the Plumbing Trade (MAIN 1402)	4
PSYC 2302 Applied Psychology	3
WDWK 1413 Cabinet Making (BLDG 2603)	4
Total Semester Hours	**43**

BUILDING CONSTRUCTION TECHNOLOGY COURSES

CNBT 1342 Building Codes and Inspections

(15.1001) (3-0) 3 hours

An examination of the building codes and standards applicable to building construction and inspection processes. (SCANS 1, 3, 5, 8, 9, 10) Prerequisite: None.

CNBT 1416 Construction Technology I [formerly BLDG 1601]

(15.1001) (3-3) 4 hours

A comprehensive course in site preparation, foundation, form work and framing. Topics include safety; tools and equipment; basic site preparation; basic foundations and form work; and basic floor, wall and framing methods and systems. Lab fee required. (SCANS 1, 3, 4, 8, 9) Prerequisite: None.

CNBT 1446 Construction Estimating I [formerly BLDG 2601]

(15.1001) (3-3) 4 hours

Fundamentals of estimating materials and labor costs in construction. Lab fee required. (SCANS 1, 2, 3, 5, 6) Prerequisite: CNBT 1453 and CNBT 2439.

CNBT 1450 Construction Technology II [formerly BLDG 1602]

(15.1001) (3-3) 4 hours

An intermediate course in site preparation, foundation, form work and framing in residential and light construction. Topics include safety; tools and equipment; site preparation and layout; concrete; foundations and related form work; and floor, wall, ceiling and roof framing methods and systems. Lab fee required. (SCANS 1, 3, 5, 8, 9, 11) Prerequisite: CNBT 1416 or consent of department chair.

CNBT 1453 Construction Technology III [formerly BLDG 1603]

(15.1001) (3-3) 4 hours

An intermediate course in foundation and form work, exterior trim and finish, and interior finish for residential and commercial construction. Topics include safety; tools and equipment; concrete; foundations and related form work; exterior building finish; and interior floors, walls and ceiling finish. Lab fee required. (SCANS 1, 3, 4, 6, 8) Prerequisite: CNBT 1416. Corequisite: CNBT 2439.

CNBT 2380 Cooperative Education – Construction/Building Technology/ Technician [formerly BLDG 2377]
(15.1001) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

CNBT 2439 Construction Technology IV [formerly BLDG 1604]
(15.1001) (3-3) 4 hours
An advanced course in site preparation, framing and interior finish for residential, light and commercial construction. Topics include safety, tools and equipment; finish site work and equipment; alternate framing systems and methods; interior doors and windows, walls and floors. Lab fee required. (SCANS 3, 5, 8, 10) Prerequisite: CNBT 1450 or consent of department chair.

WDWK 1413 Cabinet Making [formerly BLDG 2603]
(48.0703) (3-3) 4 hours
Includes the design and construction of base cabinets and wall cabinets for kitchens and bathrooms. Emphasis on the safe use of portable and stationary power tools. Finishing techniques include proper sanding, sealing, staining and finishing techniques. Lab fee required. (SCANS 1, 2, 3, 8, 9) Prerequisite: None.

Business Administration

Faculty: J.D. Roberts, chair; 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 in 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 already employed but wish to upgrade their job skills or meet certification requirements for their particular vocation.

Course of Study for Associate in Arts Degree

Business Administration

	Semester Hrs
General Education Requirements	**53**
COSC 1301 Introduction to Computer Systems or * ITSC 1401 Introduction to Computers (BCIS 1401) or higher level	3
ECON 2301 Principles of Economics I (Macro)	3
ECON 2302 Principles of Economics II (Micro)	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
MATH 1324 Mathematical Analysis for Business I	3
MATH 1325 Mathematical Analysis for Business II	3
MATH 1442 Business Statistics	4
PHED (any two one-hour activity courses)	2
Science (two sequential semesters of a lab science in biology, chemistry, geology or physics)	8
SPCH 1321 Business and Professional Speech	3
Major Requirements	**12**
ACCT 2301 Principles of Accounting I	3
ACCT 2302 Principles of Accounting II	3
BUSI 1301 Introduction to Business	3
*BUSI 2301 Business Law I	3
Total Semester Hours	**65**

*May not be accepted by all four-year or upper-level institutions. The student should consult the course catalog of the upper level institution they plan to transfer to or department advisor.

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 under the common course numbering system.

BUSINESS ADMINISTRATION COURSES

BUSI 1301 Introduction to Business

(52.0101.5104) (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

(22.0101.5124) (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, agency, government regulation of business, and property. Ethical perspectives are integrated throughout the course. (SCANS 6, 7, 9, 11) Prerequisites: Passed TASP English, reading.

ACCOUNTING COURSES

ACCT 1370 Introduction to College Accounting

(52.0301.5104) (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: None.

ACCT 2301 Principles of Accounting I

(52.0301.5104) (3-1) 3 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 exercises and problems. Manual and computer applications allow students to integrate factual learning into problem-solving situations. (SCANS 1, 3, 4, 6, 8, 9) Prerequisites: Passed TASP English, reading and mathematics.

ACCT 2302 Principles of Accounting II

(52.0301.5104) (3-1) 3 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 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 2301.

Chemistry

Faculty: G. Brent McAfee, chair; Nichole Jackson; Teresa Rogers, paraprofessional.

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, premedicine, 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	**45**
COSC 1415 Introduction to Computer Science	4
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
MATH 1348 Analytic Geometry	3
MATH 2413 Calculus I	4
PHED (any two one-hour activity courses)	2
*PHYS 2425 Engineering Physics I	4
*PHYS 2426 Engineering Physics II	4
SPCH 1315 Public Speaking	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	**66-67**

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

**Approved electives: CHEM 1204, CHEM 2301 or CHEM 2101; FREN 1411 or FREN 1412; GERM 1411 or GERM 1412; MATH 2414.

CHEMISTRY COURSES

CHEM 1105 Introductory Chemistry Laboratory

(40.0501.5103) (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

(40.0501.5203) (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

(40.0501.5203) (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 1204 Chemical Calculations [formerly CHEM 1207]

(40.0502.5203) (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

(40.0501.5103) (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

(40.0501.5203) (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

(40.0501.5203) (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

(40.0502.5103) (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

(40.0504.5203) (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

(40.0504.5203) (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

(40.0504.7203) (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

(40.0502.5103) (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) Corequisite or prerequisite: CHEM 1312. (Credit probably not transferable until CHEM 2101 is successfully completed.)

CHEM 2323 Organic Chemistry I

(40.0504.5203) (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

(40.0504.5203) (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 and Parent Development/Tech Prep

Faculty: Lucinda Hurlbut, chair; Mary Hanson.

The field of child and parent 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, child care centers, industry and community agencies need professionally-trained people who understand children and who can give them love, guidance and leadership.

The associate degree program in child and parent 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 actual experience with young children. Students enrolled in child development lab classes must meet Texas Department of Regulatory and Protective Services staff requirements for child care centers.

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

See your high school counselor or the Odessa College department chair for information on tech-prep options.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Child and Parent Development

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 1332 Structures of College Mathematics I or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**45**
CDEC 1311 Introduction to Early Childhood Education (CHLD 1302)	3
CDEC 1319 Child Guidance (CHLD 1307)	3
CDEC 1318 Nutrition, Health and Safety (CHLD 1311)	3
CDEC 1356 Emergent Literacy for Early Childhood (CHLD 2305)	3
CDEC 1357 Math and Science for Early Childhood (CHLD 2306)	3
CDEC 1358 Creative Arts for Early Childhood (CHLD 1305)	3
CDEC 1359 Children With Special Needs (CHLD 2304)	3
CDEC 1391 Special Topics in Family Life and Relations Studies (CHLD 2301)	3
CDEC 1393 Special Topics in Family Living and Parenthood (Abuse and Neglect) (CHLD 1304)	3
CDEC 1403 Family and the Community (CHLD 1150)	4
CDEC 1413 Curriculum Resources for Early Childhood Programs (CHLD 2403)	4
CDEC 1421 Infant and Toddler (CHLD 1408)	4
CDEC 2341 The School Age Child (CHLD 2303)	3
CDEC 2384 Cooperative Education in Child Development (CHLD 2377)	3
Related Requirements	**6**
PHED 1306 First Aid	3
PSYC 2308 Child Psychology	3
Total Semester Hours	**68**

Course of Study for Certificate of Completion

Level I certificates are TASP-waived.

Level I Certificate – Child Care Aide

	Semester Hrs
General Education Requirements	**3**
COSC 1301 Introduction to Computer Systems	3
Major Requirements	**13**
CDEC 1311 Introduction to Early Childhood Education (CHLD 1302)	3
CDEC 1318 Nutrition, Health and Safety (CHLD 1311)	3
CDEC 1358 Creative Arts for Early Childhood (CHLD 1305)	3
CDEC 1403 Family and the Community (CHLD 1150)	4
Related Requirements	**3**
PHED 1306 First Aid	3
Total Semester Hours	**19**

Level I Certificate – Child Development Associate (CDA)

	Semester Hrs
General Education Requirements	**3**
COSC 1301 Introduction to Computer Systems	3
Major Requirements	**16**
CDEC 1311 Introduction to Early Childhood Education (CHLD 1302)	3
CDEC 1318 Nutrition, Health and Safety (CHLD 1311)	3
CDEC 1319 Child Guidance (CHLD 1307)	3
CDEC 1358 Creative Arts for Early Childhood (CHLD 1305)	3
CDEC 1403 Family and the Community (CHLD 1150)	4
Related Requirements	**3**
PHED 1306 First Aid	3
Total Semester Hours	**22**

Level II Certificate – Child Care/Preschool Assistant Teacher

	Semester Hrs
General Education Requirements	**12**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
MATH 1332 Structures of College Mathematics I or higher level math	3
PSYC 2308 Child Psychology	3
Major Requirements	**32**
CDEC 1311 Introduction to Early Childhood Education (CHLD 1302)	3
CDEC 1318 Nutrition, Health and Safety (CHLD 1311)	3
CDEC 1319 Child Guidance (CHLD 1307)	3
CDEC 1356 Emergent Literacy for Early Childhood (CHLD 2305)	3
CDEC 1358 Creative Arts for Early Childhood (CHLD 1305)	3
CDEC 1391 Special Topics in Family Life and Relations Studies (CHLD 2301)	3
CDEC 1393 Special Topics in Family Living and Parenthood (Abuse and Neglect) (CHLD 1304)	3
CDEC 1403 Family and the Community (CHLD 1150)	4
CDEC 1421 Infant and Toddler (CHLD 1408)	4
CDEC 2384 Cooperative Education in Child Development (CHLD 2377)	3
Related Requirements	**3**
PHED 1306 First Aid	3
Total Semester Hours	**47**

Level III Certificate – Child Care Management (Advanced Skills Certificate)

May only be awarded along with or following completion of associate or a higher-level degree.

	Semester Hrs
Major Requirements	**6**
CDEC 2326 Administration of Programs for Children I (CHLD 2120, 2130, 2135)	3
CDEC 2328 Administration of Programs for Children II (CHLD 2111, 2115, 2125)	3
Related Requirements	**6**
BMGT 1301 Supervision (MGMT 1301)	3
HRPO 1311 Human Relations (MGMT 2304) or BUSG 2309 Small Business Management (MGMT 2331)	3
Total Semester Hours	**12**

CHILD DEVELOPMENT COURSES

CDEC 1311 Introduction to Early Childhood Education
[formerly CHLD 1302]

(20.0201) (2-3) 3 hours

An introduction to the profession of early childhood education, focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics and current issues. 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. Lab assignments are designed to allow students to use their reasoning ability to solve problems, make decisions and interpret observational forms. Lab fee required. (SCANS 1, 4, 9) Prerequisite: None.

CDEC 1318 Nutrition, Health and Safety
[formerly CHLD 1311]

(20.0201) (2-3) 3 hours

A study of nutrition, health, and safety including community health, universal health precautions, and legal implications. Practical application of these principles in a variety of settings. Requires choosing, planning and implementing food, health and safety activities with children. Lab fee required. (SCANS 1, 3) Prerequisite: None.

CDEC 1319 Child Guidance
[formerly CHLD 1307]

(20.0201) (2-3) 3 hours

An exploration of guidance strategies for

promoting prosocial behaviors in children. Emphasis on positive guidance principles and techniques, family involvement and cultural influences. Practical application through direct participation with children. 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. Presents major theorists and theories of individual and group management. Lab fee required. (SCANS 5, 6, 7, 8, 10, 11) Prerequisite: None.

CDEC 1356 Emergent Literacy for Early Childhood [formerly CHLD 2305]

(19.0706) (2-3) 3 hours

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. Introduces techniques for development of age appropriate language experiences in listening, speaking, reading and writing readiness. Includes methods of story telling with and without audiovisual aids such as puppets, flannel graphs, story rolls and use of media equipment such as TV/VCRs, laminators, paper copiers, glue guns and computers. Includes introduction to bilingual language development. Lab fee required. (SCANS 1, 2, 8, 11) Prerequisite: None.

CDEC 1357 Math and Science for Early Childhood [formerly CHLD 2306]

(20.0201) (2-3) 3 hours

An exploration of principles, methods, and materials for teaching children math and science concepts through discovery and play. 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. Lab fee required. (SCANS 1, 3, 4, 9) Prerequisite: None.

CDEC 1358 Creative Arts for Early Childhood [formerly CHLD 1305]

(20.0201) (2-3) 3 hours

An exploration of principles, methods, and materials for teaching children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. Creative activities will be planned and presented for all activity areas, including art, movement, music, language, science, mathematics and 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. Lab fee required. (SCANS 4, 6, 9) Prerequisite: None.

CDEC 1359 Children With Special Needs [formerly CHLD 2304]

(20.0201) (2-3) 3 hours

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues. 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. Lab fee required. (SCANS 5, 6, 10, 11) Prerequisite: None.

CDEC 1391 Special Topics in Family Life and Relations Studies [formerly CHLD 2301]

(19.0704) (3-0) 3 hours

Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 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 4, 5, 6, 10, 11) Prerequisite: None.

CDEC 1393 Special Topics in Family Living and Parenthood
[formerly CHLD 1304]
(20.0107) (3-0) 3 hours
Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 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.

CDEC 1403 Family and the Community
[formerly CHLD 1150 and 2310]
(20.0107) (3-1) 4 hours
A study of the relationship between the child, family, community and educators, including a study of parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Effective listening and spoken techniques in parent/teacher conferences are developed along with communicating skills. Child care situations and resources are explained and written report examples are developed. The intellectual and emotional growth of children and parents will be taught as well as learning how to develop strategies for managing stressful situations. Lab fee required. (SCANS 2, 4, 5, 7, 9, 10, 11) Prerequisite: None.

CDEC 1413 Curriculum Resources for Early Childhood Programs
[formerly CHLD 2403]
(20.0201) (3-3) 4 hours
A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Emphasizes planning and teaching curriculum for children (birth to 5 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. Lab fee required. (SCANS 5, 7, 9, 10) Prerequisites: CDEC 1311, CDEC 1319 and a minimum of two of the following courses: CDEC 1318, CDEC 1356, CDEC 1357, CDEC 1358 or consent of the department chair.

CDEC 1421 Infant and Toddler
[formerly CHLD 1408]
(20.0202) (3-2) 4 hours
A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Emphasizes development processes and environmental factors that can affect physical growth, shape personality and achievement from conception to 3 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. Lab fee required. (SCANS 1, 6, 9) Prerequisite: None.

CDEC 2326 Administration of Programs for Children I
[formerly CHLD 2120, 2130, 2135]
(20.0203) (3-0) 3 hours
A practical application of management procedures for early childcare education programs, including a study of planning, operating, supervising and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation and communication. The student will employ knowledge of programs, philosophies, curriculum and budget basics; develop goals and objectives, written/oral communications, parent communications; and interpret and supervise regulations, policies, staffing and evaluating. (SCANS 2, 4, 5, 6, 7, 9, 10, 11) Prerequisite: None.

CDEC 2328 Administration of Programs for Children II
[formerly CHLD 2111, 2115, 2125]
(20.0203) (3-0) 3 hours
An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. The student will

demonstrate skills in fiscal planning and analysis, legal and ethical issues, personnel management and team building, advocacy and professionalism, parent education and partnership, and technical applications in programs. The student will utilize skills in speaking, writing, computation and computer utilization. (SCANS 1, 2, 3, 4, 6, 7, 9) Prerequisite: None.

CDEC 2341 The School Age Child
[formerly CHLD 2303]
(20.0202) (3-0) 3 hours
A study of appropriate programs for the school age child (5-13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guiding techniques. Focuses on social, emotional, mental and physical development processes. Designed particularly for anyone working with individuals or groups from school age through adolescence. (SCANS 1, 9, 10) Prerequisite: None.

CDEC 2384 Cooperative Education in Child Development
[formerly CHLD 2377]
(19.0706) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. A capstone course designed to interrelate 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) Prerequisites: 21 hours of child development courses including CDEC 1311, CDEC 1319, CDEC 1413, CDEC 2421 and PSYC 2308 as well as consent of the department chair. Requires a grade of "C" or better for credit to be validated.

Clinical Laboratory Sciences

Faculty: Susan Ray, director;
Debra Borgen, 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 in applied science degree. The Odessa College MLT program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (next programmatic review: Oct. 2002). Laboratory practicums are under the full-time supervision of a qualified education coordinator at affiliated clinical laboratories. 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 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 fall semester.

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

Students seeking additional information should contact the director of the clinical laboratory sciences department. Applications for the associate degree program may be obtained from the Student Development Center.

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

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Medical Laboratory Technology

FIRST YEAR

	Semester Hrs
Summer Session II	
ENGL 1301 Composition and Rhetoric	3
MATH 1332 Structures of College Mathematics I	3
Fall Semester	
CHEM 1305 Introductory Chemistry	3
CHEM 1105 Introductory Chemistry Laboratory	1
MLAB 1201 Introduction to Clinical Laboratory Science (CLSC 1211/CLSC 1601)	2
MLAB 1227 Coagulation (CLSC 1211/CLSC 1601)	2
MLAB 1311 Urinalysis and Body Fluids (CLSC 1211/CLSC 1304)	3
MLAB 1415 Hematology (CLSC 1211/CLSC 1601)	4
Spring Semester	
BIOL 1407 General Biology II	4
MLAB 1335 Immunology/Serology (CLSC 1212/CLSC 1602)	3
MLAB 2431 Immunohematology (CLSC 1212/CLSC 1602)	4
SPCH 1321 Business & Professional Speech	3
Summer Session I	
COSC 1301 Introduction to Computer Systems	3
HIST 1301 U.S. History to 1877 or HIST 1302 U.S. History from 1877	3

SECOND YEAR

Summer Session II	
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
Fall Semester	
MLAB 1331 Parasitology/Mycology (CLSC 2211/CLSC 2601)	3
MLAB 2466 Practicum I – Medical Laboratory Technician/Assistant (CLSC 2321)	4
MLAB 2534 (Clinical) Microbiology (CLSC 2211/CLSC 2601)	5
PHED (any one-hour activity course)	1
Spring Semester	
MLAB 2371 Clinical Chemistry Instrumentation (CLSC 2212/CLSC 2602)	3
MLAB 2467 Practicum II – Medical Laboratory Technician/Assistant (CLSC 2322)	4
MLAB 2501 (Clinical) Chemistry (CLSC 2212/CLSC 2602)	5
PHED (any one-hour activity course)	1
Total Hours	70

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 clinicals are under the full-time supervision of a certified medical technologist, certified medical laboratory technician or certified phlebotomist.

Because clinical space is limited, students will be admitted on a first come basis. To be admitted to the phlebotomy program, students must be a high school graduate or equivalent and must show evidence of good physical and mental health.

Students must attain no grade lower than "C" in any phlebotomy course to complete the course of study. The phlebotomy program is offered three times a year. Classes are scheduled for the fall, spring and summer terms.

Students seeking additional information should contact the director of the clinical laboratory sciences department.

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

Course of Study for Certificate of Completion

Students enrolled in the following two phlebotomy courses may be TASP-waived.

	Semester Hrs
MDCA 1260 Clinical – Medical Assistant (CLSC 1220)	2
MDCA 1456 Phlebotomy (for Medical Assistants) (CLSC 1500)	4

CLINICAL LABORATORY SCIENCE COURSES

MDCA 1260 Clinical – Medical Assistant [formerly CLSC 1220]

(51.0801) (0-8) 2 hours

A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Consists of a total of 120 hours in an affiliated laboratory performing phlebotomy procedures under the supervision of a certified phlebotomist or clinical laboratory generalist. Required 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 certification of completion in phlebotomy and eligibility for certification examination as a phlebotomy technician. (SCANS 1, 2, 6, 8, 10, 11) Prerequisites or corequisites: MDCA 1456 and consent of department chair.

MDCA 1456 Phlebotomy (for Medical Assistants) [formerly CLSC 1500]

(51.0801) (4-1) 4 hours

Instruction in principles and procedures of phlebotomy, hematology, collection of varied sterile/non-sterile specimens, blood typing, identification, use and care of lab equipment, and quality control. Emphasis on principles/procedures of phlebotomy and handling of specimens. Includes laboratory organization, anticoagulant action, specimen requirements, reporting procedures, interpersonal relationships, professional ethics, universal precautions and safety. Completion of course partially fulfills requirements for certification of completion in phlebotomy and eligibility for certification by examination as a phlebotomy technician. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 9, 10, 11) Prerequisites: Admission to the phlebotomy program and consent of department chair. Corequisite: MDCA 1260.

MLAB 1201 Introduction to Clinical Laboratory Science [formerly CLSC 1211/ CLSC 1601]

(51.1004) (1-2) 2 hours

An introduction to clinical laboratory science, including quality control, laboratory math, safety, basic laboratory equipment, laboratory settings, accreditation and certification. Lab fee required. (SCANS 1, 2, 3, 5, 6, 7, 8, 9) Prerequisites: Admission to the medical laboratory technology program and consent of department chair. Corequisites: MLAB 1227, MLAB 1311 and MLAB 1415.

MLAB 1227 Coagulation [formerly CLSC 1211/CLSC 1601]

(51.1004) (2-1) 2 hours

A course in coagulation theory, procedures, and practical applications. Includes laboratory

exercises, which rely on commonly performed manual and semi-automated methods. Emphasis is placed on test selection and calculation, interpretation of results and correlation to disease processes. Lab fee required. (SCANS 1, 2, 3, 6, 7, 9, 10, 11) Corequisites: MLAB 1201 and consent of department chair.

MLAB 1311 Urinalysis and Body Fluids
[formerly CLSC 1211/CLSC 1304]
(51.1004) (3-1) 3 hours
An introduction to urinalysis and body fluid analysis, including the anatomy and physiology of the kidney, and physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids. Emphasizes theory and practical application of urinalysis and body fluid procedures, calculation of reportable data, their interpretation and correlation to disease processes. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9, 10, 11) Corequisites: MLAB 1201 and consent of department chair.

MLAB 1331 Parasitology/Mycology
[formerly CLSC 2211/CLSC 2601]
(51.1004) (2-4) 3 hours
A study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 10, 11) Prerequisite: MLAB 1335. Corequisites: MLAB 2534 and consent of department chair.

MLAB 1335 Immunology/Serology
[formerly CLSC 1212/CLSC 1602]
(51.1004) (2-4) 3 hours
An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures. Requires the 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. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 11) Prerequisites: MLAB 1415 and consent of department chair. Corequisite: MLAB 2431.

MLAB 1415 Hematology
[formerly CLSC 1211/CLSC 1601]
(51.1004) (3-4) 4 hours
Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated; red blood cells and white blood cells maturation sequence, and normal and abnormal morphology and associated diseases. 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 and abnormal physiology; and submission of written or computer generated reports. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9, 10, 11) Corequisites: MLAB 1201 and consent of department chair.

MLAB 2371 Clinical Chemistry Instrumentation
[formerly CLSC 2212/CLSC 2602]
(51.1004) (2-4) 3 hours
A combined lecture and laboratory course in chemistry instrumentation and methods. Encompasses a review of chemical calculations and reagent preparation, the study and application of statistics and quality control, and the utilization of chemistry equipment and supplies. Emphasizes automated and manual procedures used for the quantitation of chemical analytes. Lab safety is stressed. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 10, 11) Prerequisite: MLAB 2534. Corequisites: MLAB 2501 and consent of department chair.

MLAB 2431 Immunohematology
[formerly CLSC 1212/CLSC 1602]
(51.1004) (3-4) 4 hours
A study of blood antigens and antibodies. Performance of routine blood banking procedures, including blood group and Rh typing, antibody screens, antibody identification, cross matching, elution, and absorption techniques. Requires the 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. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 11) Corequisites: MLAB 1335 and consent of department chair.

MLAB 2466 Practicum I – Medical Laboratory Technician/Assistant
[formerly CLSC 2321]
(51.1004) (0-30) 4 hours
An intermediate type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary

theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be a paid or unpaid learning experience. Consists of 30 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 data; 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). Liability insurance and proof of health insurance are required. (SCANS 1, 2, 3, 4, 8) Prerequisite: Consent of department chair. Corequisite: MLAB 2534.

MLAB 2467 Practicum II – Medical Laboratory Technician/Assistant
[formerly CLSC 2322]
(51.1004) (0-34) 4 hours
An advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be a paid or unpaid learning experience. Consists of 34 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 data; 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). A registry review is also a requirement of completion of this course. This is the capstone experience. Liability insurance and proof of health insurance are required. (SCANS 1, 2, 3, 4, 8) Prerequisite: Consent of department chair. Corequisite: MLAB 2501.

MLAB 2501 (Clinical) Chemistry
[formerly CLSC 2212/CLSC 2602]
(51.1004) (4-4) 5 hours
An introduction to the principles and procedures of various tests performed on Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, proteins, carbohydrates, lipids, enzymes, metabolites, endocrine function, and toxicology. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 11) Prerequisite: MLAB 2534. Corequisites: MLAB 2371, MLAB 2467 and consent of department chair.

MLAB 2534 (Clinical) Microbiology
[formerly CLSC 2211/CLSC 2601]
(51.1004) (4-4) 5 hours
Instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures. The student will also interpret test results and correlation to human infections. Lab fee required. (SCANS 1, 2, 3, 4, 6, 7, 8, 9, 10, 11) Prerequisite: MLAB 1335. Corequisites: MLAB 1331, MLAB 2466 and consent of department chair.

Computer Information Systems

Faculty: Ray Cone, chair; Gene Calvert, Diane Carrasco, Melissa Elliott, Fillmore Guinn, Trina Maurer, Mitch Slusher.

The computer information systems curriculum provides students with practical, job-related computer experience. The 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Computer Information System

	Semester Hrs
General Education Requirements	**17**
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 higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology or SOCI 1301 Principles of Sociology	3
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech	3
Major Requirements	**13**
ITSC 1305 Introduction to PC Operating Systems (BCIS 1302)	3
ITSC 1401 Introduction to Computers (BCIS 1401)	4
ITSE 1329 Programming Logic and Design (BCIS 1200)	3
ITSE 1350 System Analysis and Design (BCIS 2305)	3
***Major Emphasis (Select either Option I or Option II below)**	**35 or 38**

*Major Emphasis Options for Associate in Applied Science Degree:

Option I – PC Support Specialist

Minimal entry requirements: Keyboarding skills, college level reading/writing.

	Semester Hrs
ITNW 1325 Fundamentals of Networking (CNIT 1426)	3
ITSC 1325 Personal Computer Hardware (BCIS 1303)	3
ITSC 2339 Personal Computer Help Desk	3
ITSC 2381 Cooperative Education – Computer and Information Sciences, General (BCIS 2377)	3
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSE 2313 WEB Authoring	3
ITSE 2417 JAVA Programming	4
ITSW 1301 Introduction to Word Processing (BCIS 2215)	3
ITSW 1304 Introduction to Spreadsheets (BCIS 2220)	3
ITSW 1307 Introduction to Database (BCIS 1310)	3
ITSW 2337 Advanced Database (BCIS 2310)	3
Total Semester Hours (Option I)	**65**

Option II – PC Programming and Internet Development

Minimal entry requirements: Keyboarding skills, college level reading/writing.

	Semester Hrs
ACCT 1370 Introduction to College Accounting	3
IMED 2309 Internet Commerce	3
ITSE 1407 Introduction to C++ Programming	4
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSE 2313 Web Authoring	3
ITSE 2381 Cooperative Education – Computer Programming (BCIS 2377)	3
ITSE 2417 JAVA Programming	4
ITSE 2431 Advanced C++ Programming	4
ITSE 2449 Advanced Visual BASIC Programming	4
ITSW 1307 Introduction to Database (BCIS 1310)	3
ITSW 2337 Advanced Database (BCIS 2310)	3
Total Semester Hours (Option II)	**68**

Course of Study for Certificate of Technology

Level I certificates are TASP-waived.

Level I – PC Support Specialist, Beginning

	Semester Hrs
ITSC 1305 Introduction to PC Operating Systems (BCIS 1302)	3
ITSC 1325 Personal Computer Hardware (BCIS 1303)	3
ITSC 1401 Introduction to Computers (BCIS 1401)	4
ITSE 1329 Programming Logic and Design (BCIS 1200)	3
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSW 1301 Introduction to Word Processing (BCIS 2215)	3
ITSW 1304 Introduction to Spreadsheets (BCIS 2220)	3
ITSW 1307 Introduction to Database (BCIS 1310)	3
Total Hours	**26**

Level II – PC Support Specialist, Intermediate

	Semester Hrs
General Education Requirements	**10**
ENGL 1301 Composition and Rhetoric	3
MATH 1314 College Algebra or higher level math	3
PHED (any one-hour activity course)	1
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech	3
Major Requirements	**33**
ITSC 1305 Introduction to PC Operating Systems (BCIS 1302)	3
ITSC 1325 Personal Computer Hardware (BCIS 1303)	3
ITSC 1401 Introduction to Computers (BCIS 1401)	4
ITSE 1329 Programming Logic and Design (BCIS 1200)	3
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSE 2313 WEB Authoring	3
ITSE 2417 JAVA Programming	4
ITSW 1301 Introduction to Word Processing (BCIS 2215)	3
ITSW 1304 Introduction to Spreadsheets (BCIS 2220)	3
ITSW 1307 Introduction to Database (BCIS 1310)	3
Total Hours	**43**

Level I – PC Programming and Internet Development, Entry Level

	Semester Hrs
ITSC 1401 Introduction to Computers (BCIS 1401)	4
ITSE 1329 Programming Logic and Design (BCIS 1200)	3
ITSE 1407 Introduction to C++ Programming	4
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSE 2313 Web Authoring	3
ITSE 2449 Advanced Visual BASIC Programming	4
ITSW 1307 Introduction to Database (BCIS 1310)	3
ITSW 2337 Advanced Database	3
Total Hours	**28**

Level II - PC Programming and Internet Development, Intermediate

	Semester Hrs
General Education Requirements	**9**
ENGL 1301 Composition and Rhetoric	3
MATH 1314 College Algebra or higher level math	3
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech	3
Major Requirements	**35**
ACCT 1370 Introduction to College Accounting	3
ITSC 1401 Introduction to Computers (BCIS 1401)	4
ITSE 1329 Programming Logic and Design (BCIS 1200)	3
ITSE 1407 Introduction to C++ Programming	4
ITSE 1431 Introduction to Visual BASIC Programming	4
ITSE 2313 Web Authoring	3
ITSE 2431 Advanced C++ Programming	4
ITSE 2449 Advanced Visual BASIC Programming	4
ITSW 1307 Introduction to Database (BCIS 1310)	3
ITSW 2337 Advanced Database	3
Total Hours	**44**

COMPUTER INFORMATION SYSTEMS COURSES

ITNW 1325 Fundamentals of Networking [formerly BCIS 2302]
(52.1204) (3-0) 3 hours
Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. (SCANS 1, 2, 3, 7, 8, 9, 10) Prerequisite: ITSC 1401 or instructor approval. Corequisite: ITSC 1305 or consent of instructor.

ITSC 1305 Introduction to PC Operating Systems [formerly BCIS 1302]
(11.0101) (3-0) 3 hours
A study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities. Lab fee required. (SCANS 3, 4, 6, 7, 8, 9) Prerequisite: ITSC 1401 or consent of instructor.

ITSC 1325 Personal Computer Hardware [formerly BCIS 1303]
(11.0101) (2-2) 3 hours
A study of current personal computer hardware including personal computer assembly and upgrading, setup and configuration, and troubleshooting. Lab fee required. (SCANS 1, 2, 3, 4, 7, 8, 9) Prerequisite: ITSC 1401 or consent of instructor.

ITSC 1401 Introduction to Computers [formerly BCIS 1401]
(11.0101) (3-3) 4 hours
Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Explores integration and application in business and other segments in society. Fundamentals of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area. Keyboarding proficiency is highly recommended. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: None.

ITSC 2339 Personal Computer Help Desk
(11.0101) (3-0) 3 hours
Diagnosis and solution of user hardware and software related problems with on-the-job projects in either a Help Desk lab or in short-term assignments for local business. (SCANS 1, 2, 3, 5, 6, 7, 8, 9, 10) Prerequisite: ITSC 1401 or consent of instructor.

ITSC 2381 Cooperative Education – Computer and Information Sciences, General [formerly BCIS 2377]
(11.0101) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

ITSC 2421 Integrated Software Applications II [formerly OFST 2402/POFI 1445]
(11.0101) (3-2) 4 hours
See OFFICE SYSTEMS TECHNOLOGY for description of course.

ITSE 1329 Programming Logic and Design [formerly BCIS 1200]
(11.0201) (3-0) 3 hours
A disciplined approach to problem-solving with structured techniques and representation of algorithms using appropriate design tools. Discussion of methods for testing, evaluation, and documentation. Lab fee required. (SCANS 1, 2, 3, 5, 6, 8, 9) Prerequisite: None.

ITSE 1350 System Analysis and Design [formerly BCIS 2305]
(11.0501) (2-2) 3 hours
Comprehensive introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools. Lab fee required. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: ITSW 2337 or consent of instructor.

ITSE 1407 Introduction to C++ Programming
(11.0201) (3-3) 4 hours
Introduction to computer programming using C++. Emphasis on the fundamentals of structured design with development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9) Prerequisites: ITSC 1401 and ITSE 1329 or consent of instructor.

ITSE 1431 Introduction to Visual BASIC Programming
(11.0201) (3-3) 4 hours
Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9) Prerequisite: ITSE 1329 and ITSC 1401 or consent of instructor.

ITSE 2313 Web Authoring
(11.0201) (2-2) 3 hours
Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Lab fee required. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Introductory

course in computer programming or consent of instructor.

ITSE 2381 Cooperative Education – Computer Programming [formerly BCIS 2377]

(11.0201) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

ITSE 2417 JAVA Programming

(11.0201) (3-3) 4 hours

Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9) Prerequisites: ITSE 1329 and ITSC 1401 or consent of instructor.

ITSE 2431 Advanced C++ Programming

(11.0201) (3-3) 4 hours

Further application of C++ programming techniques including subjects such as file access, abstract data structures, class inheritance, and other advanced techniques. Lab fee required. (SCANS 2, 3, 6, 7, 8, 9) Prerequisite: ITSE 1407 or consent of instructor.

ITSE 2449 Advanced Visual BASIC Programming

(11.0201) (3-3) 4 hours

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. Lab fee required. (SCANS 1, 6, 7, 8, 9) Prerequisite: ITSE 1431 or consent of instructor.

ITSW 1301 Introduction to Word Processing [formerly BCIS 2215]

(11.0301) (2-2) 3 hours

An overview of the production of documents, tables, and graphics. Keyboarding proficiency is highly recommended. Lab fee required. (SCANS 1, 2, 4, 6, 7, 8, 9) Prerequisite: None.

ITSW 1304 Introduction to Spreadsheets [formerly BCIS 2220]

(11.0301) (2-2) 3 hours

Instruction in the concepts, procedures, and importance of electronic spreadsheets. Lab fee required. (SCANS 1, 3, 4, 6, 7, 8, 9) Prerequisites: ITSC 1401 and college level math or consent of instructor.

ITSW 1307 Introduction to Database [formerly BCIS 1310]

(11.0301) (2-2) 3 hours

Introduction to database theory and the practical applications of a database. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 9, 10) Prerequisite: ITSC 1401 or consent of instructor.

ITSW 2337 Advanced Database [formerly BCIS 2310]

(11.0301) (2-2) 3 hours

Designed to provide an understanding of advanced functionality of databases. Lab fee required. (SCANS 1, 2, 4, 5, 6, 9, 10) Prerequisites: ITSW 1307 and ITSE 1431 or consent of instructor.

ITSW 2431 Advanced Word Processing [formerly OFST 2401/POFI 1491]

(11.0301) (3-2) 4 hours

See OFFICE SYSTEMS TECHNOLOGY for descriptions of course.

Computer Network and Information Technology

Faculty: Ray Cone, chair; Melissa Elliott, Trina Maurer, Mitch Slusher.

The computer network and information technology program is designed to prepare students in the knowledge of computer networking software including Microsoft products and information technology utilizing the software. Additional objectives include knowledge of DOS; hardware selection for new systems; software and system design and construction; interpretation of manuals; database management and design; structured programming; and core concepts of Microsoft software packages.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Computer Network and Information Technology

	Semester Hrs
General Education Requirements	**17**
ENGL 1301 Composition and Rhetoric	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2301 Introduction to Psychology or SOCI 1301 Principles of Sociology	3
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech	3
Major Requirements	**47**
BMGT 1301 Supervision (MGMT 1301)	3
ITMC 1319 Installing and Administering Windows 2000 (ITNW 1319)	3
ITMC 1343 Implementing and Administering Microsoft Windows 2000 Directory Services (ITNW 2356/CNIT 2326)	3
ITMC 1358 Supporting Microsoft Windows 2000 (ITNW 1358)	3
ITMC 1442 Implementing a Microsoft Windows 2000 Network Infrastructure (ITNW 1452/CNIT 2429)	4
ITMC 2303 Administering a Microsoft SQL Server 2000 Database (ITNW 2352)	3
ITMC 2331 Designing a Microsoft Windows 2000 Directory Services Infrastructure (ITNW 2359/CNIT 2329)	3
ITMC 2333 Designing a Secure Microsoft Windows 2000 Network	3
ITNW 1325 Fundamentals of Networking (CNIT 1426)	3
ITNW 1380 Cooperative Education – Business Systems Networking and Telecommunications (CNIT 2377)	3
ITNW 2313 Networking Hardware	3
ITSC 1305 Introduction to PC Operating Systems (CNIT 1302)	3
ITSC 1321 PC Operating System – Windows (CNIT 2332)	3
ITSC 1401 Introduction to Computers (CNIT 1401)	4
ITSW 1307 Introduction to Database (CNIT 1310)	3
Total Semester Hours	**64**

Course of Study for Certificate of Technology

Level I certificates are TASP-waived.

Level I – Entry Network Technician

Major Requirements	
ITMC 1319 Installing and Administering Windows 2000 (ITNW 1319)	3
ITMC 1343 Implementing and Administering Microsoft Windows 2000 Directory Services (ITNW 2357)	3
ITMC 1358 Supporting Microsoft Windows 2000 (ITNW 1358)	3
ITNW 1325 Fundamentals of Networking (CNIT 1426)	3
ITNW 2313 Networking Hardware	3
ITSC 1305 Introduction to PC Operating Systems (CNIT 1302)	3
ITSC 1321 PC Operating System – Windows (CNIT 2332)	3
ITSC 1401 Introduction to Computers (CNIT 1401)	4
ITSW 1307 Introduction to Database (CNIT 1310)	3
Total Semester Hours	**28**

Level II – Intermediate Network Technician

General Education Requirements	**6**
ENGL 1301 Composition and Rhetoric	3
MATH 1314 College Algebra or higher level math	3

Major Requirements **37**
- BMGT 1301 Supervision (MGMT 1301) 3
- ITMC 1319 Installing and Administering Windows 2000 (ITNW 1319) 3
- ITMC 1343 Implementing and Administering Microsoft Windows 2000 Directory Services (ITNW 2357) 3
- ITMC 1358 Supporting Microsoft Windows 2000 (ITNW 1358) 3
- ITMC 2333 Designing a Secure Microsoft Windows 2000 Network (ITNW 2317) 3
- ITNW 1325 Fundamentals of Networking (CNIT 1426) 3
- ITNW 1380 Cooperative Education – Business Systems Networking and Telecommunications (CNIT 2377) 3
- ITNW 2313 Networking Hardware 3
- ITSC 1305 Introduction to PC Operating Systems (CNIT 1302) 3
- ITSC 1321 PC Operating System – Windows (CNIT 2332) 3
- ITSC 1401 Introduction to Computers (CNIT 1401) 4
- ITSW 1307 Introduction to Database (CNIT 1310) ... 3

Total Semester Hours **43**

Level III – Advanced Network Technician

May only be awarded along with or following completion of associate or higher-level degree.

- ACCT 1370 Introduction to College Accounting .. 3
- ITNW 1356 Implementing Microsoft Internet Explorer 4.0 3
- ITSE 2313 Web Authoring (ITSE 1305) 3

Total Semester Hours **9**

COMPUTER NETWORK AND INFORMATION TECHNOLOGY COURSES

ITMC 1319 Installing and Administering Windows 2000 [formerly ITNW 1319]

(52.1204) (2-2) 3 hours

An introduction to Microsoft® Windows 2000 operating system in a single domain environment. Topics include basic installation, configuration tasks, and day-to-day administration tasks in a Windows 2000-based network. Lab fee required. (SCANS 1, 2, 3, 7, 8, 9, 10) Prerequisite: ITNW 1325 or consent of instructor.

ITMC 1343 Implementing and Administering Microsoft Windows 2000 Directory Services (MS 2154) [formerly ITNW 2357]

(52.1204) (2-2) 3 hours

Provides students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows 2000 Active Directory service. Focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Lab fee required. (SCANS 1, 2, 3, 6 8, 9) Prerequisite: ITMC 1358 or consent of instructor.

ITMC 1358 Supporting Microsoft Windows 2000 [formerly ITNW 1358]

(52.1204) (2-2) 3 hours

Skill development for customizing, configuring, supporting, and troubleshooting Windows 2000. Lab fee required. (SCANS 1, 2, 4, 5, 7, 8, 9) Prerequisite: ITMC 1319.

ITMC 1442 Implementing a Microsoft Windows 2000 Network Infrastructure (MS 2153) [formerly ITNW 1452/CNIT 2429]

(52.1204) (3-3) 4 hours

Installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows 2000 server family of products. Lab fee required. (SCANS 1, 2, 4, 6, 7, 8, 9) Prerequisite: ITMC 1358 or consent of instructor.

ITMC 2303 Administering a Microsoft SQL Server 2000 Database [formerly ITNW 2352]

(52.1204) (2-2) 3 hours

A course to provide students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Lab fee required. (SCANS 1, 2, 4, 5, 7, 8, 9) Prerequisite: Consent of instructor.

ITMC 2331 Designing a Microsoft Windows 2000 Directory Services Infrastructure (MS 1561) [formerly ITNW 2359/CNIT 2329]

(52.1204) (2-2) 3 hours

Provides Microsoft senior support professionals and network architects with the knowledge and skills necessary to design a Microsoft Windows 2000 directory services infrastructure. Strategies are presented to assist the student in identifying

the information technology needs of the organization and to designing the Active Directory structure that meets those needs. Lab fee required. (SCANS 1, 2, 4, 6, 7, 8, 9) Prerequisite: ITMC 1343 or consent of instructor.

ITMC 2333 Designing a Secure Microsoft Windows 2000 Network (MS 2150) [formerly ITNW 2317]

(52.1204) (2-2) 3 hours

Provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft Windows 2000 technologies. Lab fee required. (SCANS 1, 2, 4, 6, 7, 8, 9) Prerequisite: ITMC 1358 or consent of instructor.

ITNW 1325 Fundamentals of Networking [formerly CNIT 1426]

(52.1204) (3-0) 3 hours

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Lab fee required. (SCANS 1, 2, 3, 7, 8, 9, 10) Prerequisite: ITSC 1401 or consent of instructor. Corequisite: ITSC 1305 or consent of instructor.

ITNW 1356 Implementing Microsoft Internet Explorer 4.0

(52.1204) (2-3) 3 hours

An introduction to the architecture and features of Microsoft® Internet Explorer version 4.0. Topics include set up, configuration, use, and deployment of Internet Explorer in a network environment. Lab fee required. (SCANS 1, 2, 6, 7, 8, 9, 10) Prerequisite: Consent of instructor.

ITNW 1380 Cooperative Education – Business Systems Networking and Telecommunications [formerly CNIT 2377]

(52.1204) (1-20) 3 hours

An intermediate course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

ITNW 2313 Networking Hardware

(52.1204) (2-2) 3 hours

Preparation to work with and maintain network hardware devices. Topics include network cables, servers, and workstations; network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies; and other networking hardware devices. Lab fee required. (SCANS 1, 2, 3, 4, 7, 8, 9) Prerequisite: ITNW 1325 or consent of instructor.

ITSC 1305 Introduction to PC Operating Systems [formerly CNIT 1302]

(11.0101) (3-0) 3 hours

A study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities. Lab fee required. (SCANS 3, 4, 6, 7, 8, 9) Prerequisite: ITSC 1401 or consent of instructor.

ITSC 1321 PC Operating System – Windows [formerly CNIT 2332]

(11.0101) (3-0) 3 hours

Introduction to windows-based microcomputer operating systems. Topics include installation and configuration, file management, memory and storage management, peripheral device control, and use of utilities. Lab fee required. (SCANS 3, 4, 6, 7, 8, 9) Prerequisite: ITSC 1401 and ITSC 1305 or consent of instructor.

ITSC 1325 Personal Computer Hardware [formerly CNIT 1303]

(11.0101) (2-2) 3 hours

A study of current personal computer hardware including personal computer assembly and upgrading, setup and configuration, and troubleshooting. Lab fee required. (SCANS 1, 2, 3, 4, 7, 8, 9) Prerequisite: ITSC 1401 or consent of instructor.

ITSC 1401 Introduction to Computers [formerly CNIT 1401]

(11.0101) (3-3) 4 hours

Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Explores integration and application in business and other segments in society. Fundamentals of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area. Keyboarding proficiency is highly recommended. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: None.

ITSC 2421 Integrated Software Applications II
[formerly OFST 2402/POFI 1445]
(11.0101) (3-2) 4 hours
See OFFICE SYSTEMS TECHNOLOGY for description of course.

ITSE 2313 Web Authoring
[formerly ITSE 1305]
(11.0201) (2-2) 3 hours
Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Lab fee required. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: Competency in desktop operating systems and computer applications or consent of instructor.

ITSW 1307 Introduction to Database
[formerly CNIT 1310]
(11.0301) (2-2) 3 hours
Introduction to database theory and the practical applications of a database. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 9, 10) Prerequisite: ITSC 1401 or consent of instructor.

ITSW 2431 Advanced Word Processing
[formerly OFST 2401/POFI 1491]
(11.0301) (3-2) 4 hours
See OFFICE SYSTEMS TECHNOLOGY for description of course.

Computer Science —

Faculty: Ray Cone, chair; Mitch Slusher.

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 (2001) 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
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
Lab Science Sequence in Chemistry or Engineering Physics	8
Lab Science Elective	4
*MATH 1314 College Algebra	3
*MATH 1316 Trigonometry	3
PHED (any two one-hour activity courses)	2
SPCH 1321 Business and Professional Speech	3
Elective (must be outside the major area)	**3**
Major Requirements	**20**
COSC 1415 Introduction to Computer Science	4
COSC 1430 Introduction to Computer Programming	4
COSC 2420 Programming Structures in "C"	4
COSC 2425 Organization and Assembly Language	4
COSC 2430 Advanced Computer Programming	4
Total Semester hours	**67**

* MATH 1348, MATH 2413 or MATH 2414 may be substituted. Because upper level institutions require advanced math courses, taking additional math courses in your degree plan is recommended.

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

(11.0101.5207) (3-0) 3 hours

Presents extensive vocabulary, 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/Windows, 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 computer information systems majors. **Keyboarding proficiency is highly recommended.** Lab fee required. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: None.

COSC 1415 Introduction to Computer Science

(11.0201.5207) (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/Windows 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. **Keyboarding proficiency is highly recommended.** Lab fee required. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: None.

COSC 1430 Introduction to Computer Programming

(11.0201.5207) (3-3) 4 hours

Introduction to computer programming. Emphasis on the fundamentals of structured program design, development, testing, implementation, and documentation. Includes coverage of language syntax, data and file structures, input/output devices, and disks/files. Lab fee required. (SCANS 5, 6, 7, 8, 9) Prerequisite: COSC 1415 or both ITSE 1329 and ITSC 1401 or consent of instructor.

COSC 2420 Programming Structures in "C"

(11.0201.5307) (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. Lab fee required. (SCANS 1, 6, 7, 8, 9) Prerequisite: COSC 1430 or instructor approval.

COSC 2425 Computer Organization and Assembly Language

(11.0201.5407) (3-3) 4 hours

Introduces concepts and terminology relating to the internal hardware and its operation. Includes detailed discussion of internal and external bus 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. Lab fee required. (SCANS 1, 6, 7, 8, 9) Prerequisite: COSC 1430 or instructor approval.

COSC 2430 Advanced Computer Programming

(11.0201.5307) (3-3) 4 hours

A continuation of COSC 1430 with further applications of programming techniques. Students will design, code, test, debug and document programs. Programming techniques will involve arrays of record structures. Lab fee required. (SCANS 5, 6, 7, 8, 9) Prerequisite: COSC 1430 or consent of instructor.

Cosmetology

Faculty: Sylvia Stephens, chair; Lou Ann Hitt, Michael Sodd, Linda Sullivan, Theresa Vaughn.

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 for 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, and sending a $25 fee and one 1-1/2 inch square picture 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 open-exit concept. New students may call for start dates. Because of limited enrollment, students are urged to apply as early as possible before the date of proposed admission.

Note: Student liability insurance is required for all students enrolled in cosmetology.

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 CSME 1401, CSME 1451, and CSME 2441 for a total of 12 semester hours credit; (3) by successfully completing a comprehensive examination for 29 of the 41 required hours of cosmetology listed in 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 division dean.**

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Cosmetology

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	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
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3

In addition to the 20 hours listed, students must select either Option I or Option II below:

Option I – Operator

	Semester Hrs
Major Requirements (1504 clock hours)	**41**
(Classes meet eight hours per day, Monday through Friday)	
CSME 1401 Orientation to Cosmetology (COSM 2601)	4
CSME 1405 Fundamentals of Cosmetology (COSM 2602)	4
CSME 1443 Manicuring and Related Theory (COSM 2602)	4
CSME 1447 Principles of Skin Care/Facial & Related Theory (COSM 2604)	4
CSME 1451 Artistry of Hair, Theory, and Practice (COSM 2601)	4
CSME 1453 Chemical Reformation and Related Theory (COSM 2605)	4
CSME 2237 Advanced Cosmetology Techniques (COSM 2604)	2
CSME 2343 Salon Development (COSM 2606)	3
CSME 2401 The Principles of Hair Coloring and Related Theory	4
CSME 2439 Advanced Hair Design (COSM 2603)	4
CSME 2441 Preparation for the Texas Cosmetology Commission Examination (COSM 2603)	4
Related Required Courses	**3**
HRPO 1311 Human Relations (MGMT 2304) or MRKG 1311 Principles of Marketing (MGMT 1321)	3
Total Semester Hours (Option I – Operator)	**64**

Note: Students not desiring the associate in applied science degree may receive a Certificate of Completion – Operator Option.

Option II – Instructor

	Semester Hrs
Major Requirements (752 clock hours)	**30**
CSME 1534 Cosmetology Instructor I (COSM 2813)	5
CSME 1535 Orientation to the Instruction of Cosmetology (COSM 2811)	5
CSME 2514 Cosmetology Instructor II (COSM 2812)	5
CSME 2515 Cosmetology Instructor III (COSM 2812)	5
CSME 2544 Cosmetology Instructor IV (COSM 2813)	5
CSME 2545 Instruction Theory and Clinic Operation (COSM 2814)	5
***Elective(s)**	**4**
Related Requirements	**9**
BUSI 2301 Business Law I	3
HRPO 1311 Human Relations (MGMT 2304)	3
MRKG 1311 Principles of Marketing (MGMT 1321) or BUSG 2309 Small Business Management (MGMT 2331)	3
Total Semester Hours (Option II – Instructor)	**63**

Note: Students not desiring the associate in applied science degree may receive a Certificate of Completion – Instructor Option.
*See department chair for list of approved courses.

Course of Study for Certificate of Completion

Level I certificates are TASP-waived.

Level I – Operator

	Semester Hrs
Major Requirements (1504 Clock Hours)	**41**
CSME 1401 Orientation to Cosmetology (COSM 2601)	4
CSME 1405 Fundamentals of Cosmetology (COSM 2602)	4
CSME 1443 Manicuring and Related Theory (COSM 2602)	4
CSME 1447 Principles of Skin Care/Facial & Related Theory (COSM 2604)	4
CSME 1451 Artistry of Hair, Theory, and Practice (COSM 2601)	4
CSME 1453 Chemical Reformation and Related Theory (COSM 2605)	4
CSME 2237 Advanced Cosmetology Techniques (COSM 2604)	2
CSME 2343 Salon Development (COSM 2606)	3
CSME 2401 The Principles of Hair Coloring and Related Theory	4
CSME 2439 Advanced Hair Design (COSM 2603)	4
CSME 2441 Preparation for the Texas Cosmetology Commission Examination (COSM 2603)	4
Total Semester Hours	**41**

Level I – Instructor

	Semester Hrs
Major Requirements (752 Clock Hours)	**30**
CSME 1534 Cosmetology Instructor I (COSM 2813)	5
CSME 1535 Orientation to the Instruction of Cosmetology (COSM 2811)	5
CSME 2514 Cosmetology Instructor II (COSM 2812)	5
CSME 2515 Cosmetology Instructor III (COSM 2812)	5
CSME 2544 Cosmetology Instructor IV (COSM 2813)	5
CSME 2545 Instruction Theory and Clinic Operation (COSM 2814)	5
Total Semester Hours	**30**

COSMETOLOGY OPERATOR COURSES

CSME 1401 Orientation to Cosmetology [formerly COSM 2601]

(12.0403) (2-6) 4 hours
An overview of the skills and knowledge necessary for the field of cosmetology. The student will exhibit comprehension of professional ethics; demonstrate sanitation and safety; and explain the rules and regulations of the institution, department, and state. (SCANS 1, 2, 3, 10) Prerequisite: None.

CSME 1405 Fundamentals of Cosmetology [formerly COSM 2602]

(12.0403) (2-6) 4 hours
A course in the basic fundamentals of cosmetology. Topics include service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, comb out, and salon management. The student will identify fundamental concepts related to skills required by the Texas Cosmetology Commission, implement fundamental skills required by the Texas Cosmetology Commission and demonstrate professional communication skills. (SCANS 4, 8, 9, 10) Prerequisite or corequisite: CSME 1401.

CSME 1443 Manicuring and Related Theory
[formerly COSM 2602]
(12.0403) (2-6) 4 hours
Presentation of the theory and practice of nail technology. Topics include terminology, application, and workplace competencies related to nail technology. The student will identify terminology related to nail technology, demonstrate the proper application of nail technology and exhibit workplace competencies in nail technology. (SCANS 1, 2, 5, 8) Prerequisite or corequisite: CSME 1401.

CSME 1447 Principles of Skin Care/Facials and Related Theory
[formerly COSM 2604]
(12.0403) (2-6) 4 hours
In-depth coverage of the theory and practice of skin care, facials, and cosmetics. The student will identify the terminology related to the skin, products, and treatments; demonstrate the proper application related to skin care and cosmetics; and exhibit workplace competencies in skin care and cosmetics. (SCANS 1, 2, 5, 8) Prerequisite or corequisite: CSME 1401.

CSME 1451 Artistry of Hair, Theory and Practice
[formerly COSM 2601]
(12.0403) (2-8) 4 hours
Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. The student will identify the terminology related to hair structure, growth, and distribution; exhibit workplace competencies related to the artistry of hair; and demonstrate the proper application of hair design. (SCANS 1, 2, 5, 8) Prerequisite or corequisite: CSME 1401.

CSME 1453 Chemical Reformation and Related Theory
[formerly COSM 2605]
(12.0403) (2-8) 4 hours
Presentation of the theory and practice of chemical reformation. Topics include terminology, application, and workplace competencies related to chemical reformation. The student will identify terminology related to chemical reformation, demonstrate the proper application of chemical reformation and exhibit workplace competencies related to chemical reformation. (SCANS 3, 5, 8, 9) Prerequisite or corequisite: CSME 1401.

CSME 2237 Advanced Cosmetology Techniques
[formerly COSM 2604]
(12.0403) (0-8) 2 hours
Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies. The student will develop and create a variety of hair designs; perform professional cosmetology services; and demonstrate cosmetology workplace competencies. (SCANS 3, 8, 9) Prerequisite or corequisite: CSME 1405.

CSME 2343 Salon Development
[formerly COSM 2606]
(12.0403) (2-4) 3 hours
Exploration of salon development. Topics include professional ethics and goals; salon operation; and record keeping. The student will create a salon portfolio, demonstrate an understanding of salon operations and demonstrate organizational skills related to salon management. (SCANS 1, 2, 3, 4, 5, 6, 8) Prerequisite or corequisite: CSME 1401.

CSME 2401 The Principles of Hair Coloring and Related Theory
[formerly COSM 2605]
(12.0403) (2-8) 4 hours
Presentation of the theory and practice of hair color and chemistry. Topics include terminology, application, and workplace competencies related to hair color and chemistry. The student will identify terminology related to hair color and chemistry, demonstrate the proper application of hair color and exhibit workplace competencies related to hair color. (SCANS 3, 5, 8, 9) Prerequisite or corequisite: CSME 1401.

CSME 2439 Advanced Hair Design
[formerly COSM 2603]
(12.0403) (2-6) 4 hours
Advanced concepts in the theory and practice of hair design. The student will identify terminology related to hair design, demonstrate the proper techniques related to hair design and exhibit workplace competencies in hair design. (SCANS 1, 2, 8) Prerequisite or corequisite: CSME 1401.

CSME 2441 Preparation for the Texas Cosmetology Commission Examination
[formerly COSM 2603]
(12.0403) (2-8) 4 hours
Preparation for the Texas Cosmetology Commission Operation Examination. The student will exhibit the skills required for the completion

of the Texas Cosmetology Commission theory examination. (SCANS 1, 2, 9) Prerequisite or corequisite: CSME 1401.

COSMETOLOGY INSTRUCTOR COURSES

CSME 1534 Cosmetology Instructor I
[formerly COSM 2813]
(13.0301) (4-4) 5 hours
The fundamentals of instruction of cosmetology students. The student will develop an understanding of classroom/clinic management, design teaching methodologies and design and implement lesson plans. (SCANS 1, 2, 5, 6, 11) Prerequisite: Current Texas Cosmetology Commission Operator's License.

CSME 1535 Orientation to the Instruction of Cosmetology
[formerly COSM 2811]
(13.0301) (4-3) 5 hours
An overview of the skills and knowledge necessary for the instruction of cosmetology students. The student will develop an understanding of the rules and regulations of the school, department, and state; demonstrate an understanding of teaching methodologies; and exhibit an understanding of lesson plan development. (SCANS 1, 2, 6, 8) Prerequisite: Current Texas Cosmetology Commission Operator's License.

CSME 2514 Cosmetology Instructor II
[formerly COSM 2812]
(13.0301) (4-4) 5 hours
A continuation of the fundamentals of instruction of cosmetology students. The student will demonstrate proper classroom/clinic management; and implement teaching methodologies and lesson plans. (SCANS 7, 9, 10, 11) Prerequisite: Current Texas Cosmetology Commission Operator's License.

CSME 2515 Cosmetology Instructor III
[formerly COSM 2812]
(13.0301) (4-4) 5 hours
Presentation of assignments and evaluation techniques for a cosmetology program. The student will develop an understanding of the proper assessment and evaluation techniques in a cosmetology program; and design an evaluation tool for a cosmetology program. (SCANS 2, 6, 7, 9) Prerequisite: Current Texas Cosmetology Commission Operator's License.

CSME 2544 Cosmetology Instructor IV
[formerly COSM 2813]
(13.0301) (4-4) 5 hours
Advanced concepts of instruction in a cosmetology program. Topics include demonstration and implementation of advanced evaluation and assessment techniques. The student will demonstrate proper assessment and evaluation techniques in a cosmetology program; and implement evaluation tools in a cosmetology program. (SCANS 1, 2, 6, 9) Prerequisite: Current Texas Cosmetology Commission Operator's License.

CSME 2545 Instructional Theory & Clinic Operation
[formerly COSM 2814]
(13.0301) (4-4) 5 hours
An overview of the objectives required by the Texas Cosmetology Commission Instructor Examination. The student will exhibit the skills required for the completion of the Texas Cosmetology Commission curriculum; demonstrate the management of a lab/clinic in a cosmetology program; and exhibit classroom management skills. (SCANS 1, 2, 8, 10) Prerequisite: Current Texas Cosmetology Commission Operator's License.

Criminal Justice
(see Law Enforcement/Criminal Justice)

Culinary Arts

Faculty: Peter Lewis, chair; Terry Gouley.

Odessa College offers the student two associate in applied science degree options in culinary arts. Option one, Culinary Arts, focuses on basic and advanced food preparation and baking skills; option two, Food Service Management, focuses on basic food preparation and food service management skills. Both options prepare individuals for entry-level employment positions and afford those individuals with sufficient thinking, reasoning and application skills to pursue and obtain advancement in their chosen profession.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Culinary Arts

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
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 I	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**33**
CULA 1214 A La Carte Cooking (CULI 2210)	2
CULA 1301 Basic Food Preparation (CULI 1201)	3
CULA 1305 Sanitation and Safety (CULI 1320)	3
CULA 1341 American Regional Cuisine (CULI 2212)	3
CULA 1345 International Cuisine (CULI 2211)	3
CULA 1391 Special Topics – Nutrition (CULI 1322)	3
CULA 1409 Garde Manger (CULI 2215)	4
CULA 2201 Intermediate Food Preparation (CULI 1203)	2
CULA 2232 Buffet Theory and Production (CULI 2217)	2
CULA 2236 Charcuterie (CULI 2216)	2
CULA 2302 Saucier (CULI 1202)	3
CULA 2380 Cooperative Education – Culinary Arts (CULI 2377)	3
Related Requirements	**18**
PSTR 1301 Fundamentals of Baking (CULI 1206)	3
PSTR 2331 Advanced Pastry Shop (CULI 1207)	3
RSTO 1201 Beverage Management (CULI 1221)	2
RSTO 1204 Dining Room Services (CULI 1221)	2
RSTO 1221 Menu Management (CULI 2224)	2
RSTO 1313 Hospitality Supervision (CULI 2223)	3
RSTO 1325 Purchasing for Hospitality Operations (CULI 1321)	3
Total Semester Hours	**71**

Course of Study for Associate in Applied Science Degree
Food Service Management

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
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 I	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**50**
ACCT 1370 Introduction to College Accounting	3
BMGT 1301 Supervision (MGMT 1301)	3
BMGT 1305 Communication in Management	3
BMGT 2309 Leadership (MGMT 2302)	3
BUSI 2301 Business Law I	3
CULA 1301 Basic Food Preparation (CULI 1201)	3
CULA 1305 Sanitation and Safety (CULI 1320)	3
CULA 1391 Special Topics – Nutrition (CULI 1322)	3
CULA 2201 Intermediate Food Preparation (CULI 1203)	2
CULA 2302 Saucier (CULI 1202)	3
CULA 2380 Cooperative Education – Culinary Arts (CULI 2377)	3
HRPO 1311 Human Relations (MGMT 2304)	3
MRKT 1311 Principles of Marketing (MGMT 1321)	3
RSTO 1201 Beverage Management (CULI 1221)	2
RSTO 1204 Dining Room Service (CULI 1221)	2
RSTO 1221 Menu Management (CULI 2224)	2
RSTO 1313 Hospitality Supervision (CULI 2223)	3
RSTO 1325 Purchasing for Hospitality Operations (CULI 1321)	3
Total Semester Hours	**70**

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 employment 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 take major or related courses in the degree sequence.

Course of Study for Certificate of Completion

Level I certificates are TASP-waived.

Level I – Food Production Cook

	Semester Hrs
CULA 1214 A La Carte Cooking (CULI 2210)	2
CULA 1301 Basic Food Preparation (CULI 1201)	3
CULA 1305 Sanitation and Safety (CULI 1320)	3
CULA 1341 American Regional Cuisine (CULI 2212)	3
CULA 1345 International Cuisine (CULI 2211)	3
CULA 1391 Special Topics – Nutrition (CULI 1322)	3
CULA 2201 Intermediate Food Preparation (CULI 1203)	2
CULA 2302 Saucier (CULI 1202)	3
RSTO 1201 Beverage Management (CULI 1221)	2
RSTO 1204 Dining Room Management (CULI 1221)	2
RSTO 1325 Purchasing for Hospitality Operations (CULI 1321)	3
Total Semester Hours	**29**

Student Equipment Requirements for Major Courses

CULA 1301, CULA 2201, and CULA 2302:
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

PSTR 1301 and PSTR 2331:
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

CULA 1214, CULA 1341, and CULA 1345:
Uniforms and tool kit as identified in CULA 1301, 2201, and 2302.

CULA 1409, CULA 2232, and CULA 2236:
Uniforms and tool kit as identified in CULA 1301, 2201, and 2302 plus:

A. 1 set of 1/2" aspic cutters
B. 1 Exacto knife
C. 1 set of butter sculpture tools

CULINARY ARTS COURSES

CULA 1214 A La Carte Cooking
[formerly CULI 2210]
(12.0503) (1-3) 2 hours
A course in a la carte or "cooking to order" concepts. Topics include menu and recipe interpretation and conversion, organization of workstation, employment of appropriate cooking methods, plating and saucing principles. Lab fee required. (SCANS 1, 3, 4, 5, 7, 8) Prerequisites: CULA 1301, CULA 2201 and CULA 2302.

CULA 1301 Basic Food Preparation
[formerly CULI 1201]
(12.0503) (2-2) 3 hours
A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition and professionalism. Lab fee required. (SCANS 1, 3, 7, 8) Prerequisite: None.

CULA 1305 Sanitation and Safety
[formerly CULI 1320]
(12.0503) (3-0) 3 hours
A study of personal cleanliness; sanitary practices in food preparations; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. (SCANS 1, 2, 4, 5, 7, 8, 9, 10) Prerequisite: None.

CULA 1341 American Regional Cuisine
[formerly CULI 2212]
(12.0503) (2-2) 3 hours
A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems. Application of skills 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: CULA 1214 and CULA 1345.

CULA 1345 International Cuisine
[formerly CULI 2211]
(12.0503) (2-2) 3 hours
The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. Lab fee required. (SCANS 4, 6, 8, 9) Prerequisite: CULA 1214.

CULA 1391 Special Topics in Culinary Arts/Chef Training – Nutrition
[formerly CULI 1322]
(12.0503) (3-0) 3 hours
Introduces the concepts and principles of normal nutrition with emphasis on the importance of nutrients and 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, and estimate the nutritional value of specific food groups within one's diet. (SCANS 1, 2, 3, 4, 6, 9) Prerequisite: None.

CULA 1409 Garde Manger
[formerly CULI 2215]
(12.0503) (3-2) 4 hours
A study of specialty foods and garnishes. Emphasis on design, techniques and display of fine foods. Lab fee required. (SCANS 1, 2, 3, 5, 8, 9) Prerequisite: CULA 1301.

CULA 2201 Intermediate Food Preparation
[formerly CULI 1203]
(12.0503) (1-3) 2 hours
Continuation of previous food preparation course (CULA 1301). Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Topics also include menu items such as soups, sauces and protein foods. Also includes concentration on the identification of a variety of sandwiches, salads, fruits and vegetables. Lab fee required. (SCANS 1, 3, 4, 5, 7, 8) Prerequisite: CULA 1301.

CULA 2232 Buffet Theory and Production
[formerly CULI 2217]
(12.0503) (1-3) 2 hours
Advanced concepts in the construction of inedible display items. Emphasis on buffet production, presentation and service. Lab fee required. (SCANS 1, 2, 3, 5, 7, 8) Prerequisite: CULA 2236.

CULA 2236 Charcuterie
[formerly CULI 2216]
(12.0503) (1-3) 2 hours
Advanced concepts in the construction of sausages, pates, and related forced meat preparations. Lab fee required. (SCANS 1, 2, 3, 5, 7, 8, 9) Prerequisite: CULA 1409.

CULA 2302 Saucier
[formerly CULI 1202]
(12.0503) (2-2) 3 hours
Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Lab fee required. (SCANS 1, 3, 4, 5, 7, 8) Prerequisite: CULA 1301.

CULA 2380 Cooperative Education – Culinary Arts/Chef Training
[formerly CULI 2377]
(12.0503) (1-20) 3 hours
An advanced course with the lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

PSTR 1301 Fundamentals of Baking
[formerly CULI 1206]
(12.0501) (2-4) 3 hours
Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the use of proper flours. Lab fee required. (SCANS 1, 3, 4, 7, 8, 9) Prerequisite: None.

PSTR 2331 Advanced Pastry Shop
[formerly CULI 1207]
(12.0501) (2-4) 3 hours
A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work and decorations. Emphasis on advanced techniques. Lab fee required. (SCANS 1, 2, 3, 4, 7, 8) Prerequisite: PSTR 1301.

RSTO 1201 Beverage Management [formerly CULI 1221]
(12.0504) (2-0) 2 hours
A study of the beverage service of the hospitality industry including spirits, wines, beers and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service and the selection of wines to enhance foods. (SCANS 1, 2, 3, 5) Prerequisite: None.

RSTO 1204 Dining Room Service [formerly CULI 1221]
(12.0504) (2-0) 2 hours
Introduces the principles, concepts and systems of professional table service. Topics include dining room organization, scheduling and management of food service personnel. (SCANS 8, 9, 10) Prerequisite: None.

RSTO 1221 Menu Management [formerly CULI 2224]
(12.0504) (2-0) 2 hours
A study of the food service principles involved in menu planning, layout and evaluation for a variety of types of facilities and service methods. Emphasis on analysis of menu profitability, modification, commodity use, and other activities generated by the menu. (SCANS 1, 2, 3, 5, 6, 8, 9) Prerequisite: None.

RSTO 1313 Hospitality Supervision [formerly CULI 2223]
(12.0504) (3-0) 3 hours
Fundamentals of recruiting, selection, and training of food service and hospitality personnel. Topics include job descriptions, schedules, work improvement, motivation, and applicable personnel laws and regulations. Emphasis on leadership development. (SCANS 1, 2, 3, 4, 5, 6, 7, 9) Prerequisite: None.

RSTO 1325 Purchasing for Hospitality Operations [formerly CULI 1321]
(12.0504) (3-0) 3 hours
Study of purchasing and inventory management of foods and other supplies to include development of purchase specification, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls and record keeping at each stage of the purchasing cycle. (SCANS 2, 3, 5, 10) Prerequisite: None.

Developmental Education

Odessa College offers a developmental studies program for those students who need further development in or who wish to review fundamentals of mathematics, reading and writing. All courses described below in greater detail are elements of the developmental education 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 may be administered prior to enrollment. For attendance policy, please see requirements stated under class attendance (refer to index).

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 education will transfer for degree credit.

Odessa College offers free tutoring to Odessa College students in the Tutoring Center, located in the Learning Resources Center, Room 301.

DEVELOPMENTAL SCIENCE COURSE

BIOL 0371 Developmental Science

(32.0106.5103) (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 required. (SCANS 1, 3, 6, 9) Prerequisite: None.

COURSES AND SERVICES AVAILABLE IN DEVELOPMENTAL STUDIES

ENGLISH COURSES AND THE WRITING LAB

ENGL 0370, 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

(32.0108.5312) (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. 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

(32.0108.5312) (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. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0172 Focus and Unity

(32.0108.5312) (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. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0173 Organization and Development

(32.0108.5312) (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. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0174 Usage

(32.0108.5312) (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. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

The Tutoring Center, located in the Learning Resources Center, Room 301, offers 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 for Odessa College students.

MATH COURSES AND THE TUTORING LAB

MATH 0370 Arithmetic presents basic arithmetic operations and is a prerequisite for MATH 0371.

MATH 0371 Pre-algebra 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. Five one-hour lab courses – MATH 0170, MATH 0171, MATH 0172, MATH 0173 and MATH 0174 – provide review of mathematics study skills, 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 may not be accepted in transfer to other colleges and universities. Students may be guided into the courses on the basis of optional diagnostic pre-tests that are available in the Testing Center on the second floor of the Student Union Building.

MATH 0370 Arithmetic

(32.0104.5119) (3-0) 3 hours

A developmental course for students with weak preparation in fundamental mathematics and who are deficient in math, English and/or reading. Presents basic arithmetic operations (whole numbers, fractions, decimals, and signed numbers), percents and proportions, metric and American systems of units, geometric measurements, and statistical graphs. MATH 0370 must be passed with a "C" or better in order to progress to next appropriate course. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: None. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0371 Pre-Algebra

(32.0104.5119) (3-0) 3 hours

A developmental course using whole numbers, decimals, fractions, integers, linear equations,

problem solving, geometry formulas, real number properties, polynomials, exponents, radicals, equations, and graphs of lines. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0370 passed with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0372 Introductory Algebra

(32.0104.5119) (3-0) 3 hours

A developmental course that introduces elementary algebra with some arithmetic review. Includes signed numbers and rational numbers with operations through exponentiation; algebraic expressions and their operations; linear equations and inequalities including applications, graphs and systems; and function notation. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0371 passed with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0375 Intermediate Algebra

(32.0104.5219) (3-0) 3 hours

A developmental course that provides a study of real number operations, linear and quadratic inequalities, exponents and radicals, polynomial and radical equations, and their graphs. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0372 passed with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

The Tutoring Center, located in Room 301 of the Learning Resources Center, offers free 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 free to students wishing to review mathematical concepts related to vocational course work.

The five one-hour lab courses follow. Students may be guided into these courses according to their performance on the TASP test or on optional placement tests administered in the Testing Center, located on the second floor of the Student Union Building.

MATH 0170 Math Study Skills

(32.0101.5212 (0-1) 1 hour

A math study skills course designed to enable students to receive assistance in specific mathematics courses taken with a "B or better" contract. Tutorial help, computer-assisted instruction, videotapes and TASP study materials are available to support this course. This course is a corequisite with a college level course taken with a "B or better" contract. MATH 0170 will satisfy TASP liability only if concurrently enrolled in college level mathematics course. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Lab fee required. (SCANS 3, 4, 8, 9) Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0171 Fundamental Math

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0172 Algebra – Graphing and Equations

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0173 Algebra – Operations and Quadratics

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0174 Geometry and Problem Solving

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or 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 the reading program is an investment in self. No matter what a person's reading ability, reading skills can be improved.

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. Students who enroll for Basic English (0370) and have not taken and passed the reading section of the TASP must enroll in a reading class. Students should check their TASP liability before enrolling in reading.

READ 0371 Basic Reading

(32.0108.5212) (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

(32.0108.5212) (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 workplace environments. Includes diagnosis of individual reading strengths and weaknesses for placement in multilevel course that includes computer exercises, timed reading practices and vocabulary study. Lab fee required. (SCANS 1, 9, 10) Prerequisite: None, satisfactory placement score or placement by counselor.

READ 0373 Advanced College Reading

(32.0108.5212) (3-0) 3 hours

Continues independent work to maintain improved critical reasoning skills designed to

meet specific needs in comprehension, vocabulary, reading rate, and study skills. The student monitors and corrects ineffective behavior as he assesses himself accurately, sets personal goals, and monitors progress. Lab fee required. (SCANS 1, 7, 9, 10) Prerequisite: Read 0372 passed with a "C" or better or satisfactory placement score or reading faculty approval.

COLLEGE READING TECHNIQUES

The college reading techniques course provides an alternative reading program with structured, individualized, self-paced instruction in a multimedia and multilevel environment that includes computer instruction. Regardless of present reading ability, students can expect to increase vocabulary and reading rate and improve comprehension. Effective study techniques offer opportunities to improve performance in both academic and vocational-technical courses.

Diagnostic tests are administered 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 in person immediately upon registration to arrange meeting times for this one-hour self-paced course.

READ 0171 Improving Reading Skills

(32.0108.5212) (0-2) 1 hour

Introduces self-paced, individualized instruction in a multimedia 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 workplace environments, which ultimately can result in higher self-esteem. Through independent learning activities, the student learns to validate his understanding of reading materials, increase vocabulary with various written activities and gain in individual reading rates. Lab fee required. (SCANS 1, 4, 7, 10) Prerequisite: None.

Diesel Technology –

Faculty: James McCutcheon, chair.

The diesel technology program has been redeveloped to fit industry-specific needs. This fast growing field offers excellent career opportunities for qualified technicians and specialists. Completion of this program will offer students the opportunity to apply for an entry level career as a technician and one of several service specialist options.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Diesel Technology

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**43**
DEMR 1266 Practicum – Diesel Engine Mechanic and Repairer (DESL 1377)	2
DEMR 1413 Fuel Systems (DESL 1504)	4
DEMR 1505 Basic Electrical Systems (DESL 1503)	5
DEMR 1506 Diesel Engine I (DESL 1501)	5
DEMR 1549 Diesel Engine II (DESL 1502)	5
DEMR 2380 Cooperative Education – Diesel Engine Mechanic & Repairer (DESL 2377)	3
DEMR 2434 Advanced Diesel Tune-up and Troubleshooting (DESL 2510)	4
DEMR 2532 Electronic Controls (DESL 2520)	5
DEMR 2538 Advanced Power Applications I (DESL 2501) or DEMR 2542 Automatic Power Shift and Hydrostatic Transmissions I (DESL 2512)	5
DEMR 2540 Advanced Power Applications II (DESL 2507) or DEMR 1516 Basic Hydraulics (DESL 2511)	5
Related Requirements	**5**
HRPO 1191 Special Topics in Human Resources Management	1
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**65**

Diesel Mechanics Certificates of Technology

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

Level I certificate is TASP-waived.

Level I – Diesel Technician

	Semester Hrs
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
DEMR 1266 Practicum – Diesel Engine Mechanic and Repairer (DESL 1377)	2
DEMR 1413 Fuel Systems (DESL 1504)	4
DEMR 1505 Basic Electrical Systems (DESL 1503)	5
DEMR 1506 Diesel Engine I (DESL 1501)	5
DEMR 1549 Diesel Engine II (DESL 1502)	5
HRPO 1191 Special Topics in Human Resources Management	1
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**32**

Level II – Option I Heavy Equipment Specialist

The 32 hours specified in level I certificate plus the following courses:

	Semester Hrs
DEMR 1516 Basic Hydraulics (DESL 2511)	5
DEMR 2380 Cooperative Education – Diesel Engine Mechanic and Repairer (DESL 2377)	3
DEMR 2434 Advanced Diesel Tune-up and Troubleshooting (DESL 2510)	4
DEMR 2532 Electronics Controls (DESL 2520)	5
DEMR 2542 Automatic Power Shift and Hydrostatic Transmissions I (DESL 2512)	5
Total Semester Hours	**54**

Level II – Option II Diesel Truck Specialist

The 32 hours specified in level I certificate plus the following courses:

	Semester Hrs
DEMR 2380 Cooperative Education – Diesel Engine Mechanic and Repairer (DESL 2377)	3

DEMR 2434 Advanced Diesel Tune-up and Troubleshooting (DESL 2510) 4
DEMR 2532 Electronic Controls (DESL 2520) 5
DEMR 2538 Advanced Power Applications I (DESL 2501) 5
DEMR 2540 Advanced Power Applications II (DESL 2507) 5

Total Semester Hours 54

Level III – Service Manager Certificate

May only be awarded along with or following completion of associate or higher-level degree.

Semester Hrs

General Education Requirements 9
ACCT 1370 Introduction to College Accounting .. 3
BMGT 1301 Supervision (MGMT 1301) 3
HRPO 1311 Human Relations (MGMT 2304) 3

Total Semester Hours 9

DIESEL COURSES

DEMR 1266 Practicum – Diesel Engine Mechanic and Repairer
[formerly DESL 1377]
(47.0605) (0-15) 2 hours
Practical general training and experiences in the work place. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair. Corequisite: HRPO 1191.

DEMR 1413 Fuel Systems
[formerly DESL 1504]
(47.0605) (2-6) 4 hours
In-depth coverage of the fuel injector pumps and injection systems with emphasis on rebuilding and calibration. Emphasis on fuels and emissions as 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. Students will allocate time while working and communicating with each member in their lab team on the exercise and using technical manuals. The students will acquire new knowledge, skills and improve self-esteem. The reading and discussion of technical material is required. Lab fee required. (SCANS 1, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

DEMR 1505 Basic Electrical Systems
[formerly DESL 1503]
(47.0605) (4-4) 5 hours
An introduction to the basic principles of the electrical systems of diesel powered equipment with emphasis on starters, alternators, batteries and regulators. Students will learn the basic principles of electricity, reading and interpretation of schematic diagrams and multi meters. Current technology will be applied in the diagnosis and repair of these various components. Lab fee required. (SCANS 1, 3, 5, 6, 8, 9, 11) Prerequisite: None.

DEMR 1506 Diesel Engine I
[formerly DESL 1501]
(47.0605) (4-4) 5 hours
An introduction to the basic principles of diesel engines and systems. Students will learn principles and nomenclatures of diesel engines. Reading and interpreting service manuals and decisions regarding service and repair will be required. Student will use current technologies to diagnose and repair various diesel engines. Lab fee required. (SCANS 1, 6, 8, 9, 11) Prerequisite: None.

DEMR 1516 Basic Hydraulics
[formerly DESL 2511]
(47.0605) (4-4) 5 hours
Fundamentals of hydraulics including components and related systems. After verifying customer complaints, student teams will conduct component testing and circuit design, operation, system diagnostics, preventive and predictive maintenance. Basic hardware, tools, safety and practices normally associated with maintenance and service trades is also presented along with failure analysis and rebuilding of hydraulic components. Lab fee required. (SCANS 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

DEMR 1549 Diesel Engine II
[formerly DESL 1502]
(47.0605) (4-4) 5 hours
An in-depth coverage of disassembly, repair, identification, evaluation and reassembly of diesel engines. The students will learn the theory of operation, terminology and proper repair procedures through extensive lab and classroom instruction. Reading and interpretation of service material will be necessary to facilitate understanding, diagnosis and repair of the Caterpillar engine. Lab fee required. (SCANS 1, 3, 5, 6, 8, 9, 11) Prerequisite: None.

DEMR 2380 Cooperative Education – Diesel Engine Mechanic and Repairer [formerly DESL 2377]

(47.0605) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

DEMR 2434 Advanced Diesel Tune-up and Troubleshooting [formerly DESL 2510]

(47.0605) (2-6) 4 hours

Advanced concepts and skills required for tune-up and troubleshooting procedures of diesel engines. Emphasis on the science of diagnostics with a common sense approach. After verifying customer complaints, student teams will use diagnostic equipment to test, troubleshoot and repair electronic and auxiliary systems to include electronic controlled engines and other computer controlled systems. Preventive maintenance and tune-up techniques are also presented while stressing problem solving strategies. Service manuals and other research tools and resources are emphasized along with the development of diesel vocabulary and specialized electronics math skills. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

DEMR 2446 Advanced Heating, Ventilation, and Air Conditioning (HVAC)

(47.0605) (2-6) 4 hours

Advanced concepts in heating, ventilation, and air conditioning. Emphasis on systematic troubleshooting. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

DEMR 2532 Electronic Controls [formerly DESL 2520]

(47.0605) (4-4) 5 hours

Advanced skills in diagnostic and programming techniques of electronic control systems. After verifying customer complaints, student teams will perform preventative and predictive maintenance, system analysis and correct repair procedures. Theory and application of basic hardware, tools, safety, practices and repair of wiring circuits on all types of electrical components will be emphasized. Lab fee required. (SCANS 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

DEMR 2538 Advanced Power Applications I [formerly DESL 2501]

(47.0605) (4-4) 5 hours

Advanced power train applications with emphasis on testing and evaluation of components. The students will learn the purpose, theory and terminology of the modern heavy truck power train components. Reading and interpretation of service manuals and bulletins will be necessary to facilitate the understanding, diagnosis and repair of transmissions, power trains and accessories. Lab fee required. (SCANS 1, 3, 6, 7, 8, 9, 11) Prerequisite: None.

DEMR 2540 Advanced Power Applications II [formerly DESL 2507]

(47.0605) (4-4) 5 hours

Extended applications of power train with emphasis on testing and evaluation of components. The students will learn the theory and terminology of the modern heavy truck chassis. Reading and interpretation of service material will be necessary to facilitate the understanding and repair of the chassis and its various components. Lab fee required. (SCANS 1, 2, 6, 7, 8, 9, 11) Prerequisite: None.

DEMR 2542 Automatic Power Shift and Hydrostatic Transmissions I [formerly DESL 2512]

(47.0605) (4-4) 5 hours

A study of the operation, maintenance and repair of automatic power shift hydrostatic transmissions. After verifying customer complaints, student teams will learn operating principles of power shift transmissions, conventional oval track machines and elevator sprocket machine final drives. Emphasis on hydraulic principles and power flow, diagnostic procedures, disassembly, inspection, repair and reassembly. Lab fee required. (SCANS 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

HRPO 1191 Special Topics in Human Resources Management

(52.1001) (1-0) 1 hour

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. (SCANS 2, 5, 6, 11) Prerequisite: None. Corequisite: DEMR 1266.

Drafting Technology

Faculty: James Mosman, chair; James McPherson.

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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Drafting Technology

	Semester Hrs
General Education Requirements	**17**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or higher level math	3
MATH 1316 Plane Trigonometry	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**35**
DFTG 1405 Technical Drafting (DRAF 1401)	4
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
DFTG 1417 Architectural Drafting – Residential (DRAF 2401)	4
DFTG 1433 Mechanical Drafting (DRAF 2402)	4
DFTG 2381 Cooperative Education – Drafting (DRAF 2377)	3
DFTG 2410 Structural Drafting (DRAF 2406)	4
DFTG 2412 Technical Illustration (DRAF 2403)	4
DFTG 2419 Intermediate Computer-Aided Drafting (DRAF 2418/DFTG 1452)	4
DFTG 2423 Pipe Drafting (DRAF 2404/ DFTG 1444)	4
Related Requirements	**15**
MCHN 1438 Basic Machine Shop I (MACH 1401)	4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**67**

Certificates of Technology in Drafting

Level I certificates are TASP-waived.

Level I – Architectural Detailer

	Semester Hrs
Technical Core	
DFTG 1405 Technical Drafting (DRAF 1401)	4
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
DFTG 1417 Architectural Drafting – Residential (DRAF 2401)	4
DFTG 2410 Structural Drafting (DRAF 2406)	4
DFTG 2419 Intermediate Computer-Aided Drafting (DRAF 2418/DFTG 1452)	4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
Total Semester Hours	**24**

Level I – Machine Drafting Detailer

	Semester Hrs
Technical Core	
DFTG 1405 Technical Drafting (DRAF 1401)	4
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
DFTG 1433 Mechanical Drafting (DRAF 2402)	4
DFTG 2412 Technical Illustration (DRAF 2403)	4
DFTG 2419 Intermediate Computer-Aided Drafting (DRAF 2418/DFTG 1452)	4
MCHN 1438 Basic Machine Shop I (MACH 1401)	4
Total Semester Hours	**24**

Level I – Structural Drafting Detailer

	Semester Hrs
Technical Core	
DFTG 1405 Technical Drafting (DRAF 1401)	4
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
DFTG 2410 Structural Drafting (DRAF 2406)	4
DFTG 2419 Intermediate Computer-Aided Drafting (DRAF 2418/DFTG 1452)	4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**24**

Level I – Pipe Drafting Detailer

Semester Hrs

Technical Core

DFTG 1405 Technical Drafting (DRAF 1401) 4
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408) 4
DFTG 2419 Intermediate Computer-Aided Drafting (DRAF 2418/DFTG 1452) 4
DFTG 2423 Pipe Drafting (DRAF 2404/DFTG 1444) . 4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395) 4

Total Semester Hours 20

Advanced Skills Certificate of Technology

Level III – Technical Illustrator

May only be awarded along with or following completion of associate or higher-level degree.

Semester Hrs

Technical Core

DFTG 2402 Machine Drafting (DRAF 2412) 4
DFTG 2428 Architectural Drafting – Commercial (DRAF 2411/DFTG 1454) 4
DFTG 2459 Technical Presentations (DRAF 2413/DFTG 1491) 4

Total Semester Hours 12

DRAFTING TECHNOLOGY COURSES

DFTG 1405 Technical Drafting [formerly DRAF 1401]

(48.0101) (2-4) 4 hours

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views and reproduction processes. (SCANS 1, 2, 3, 4, 7, 8) Prerequisite: None.

DFTG 1409 Basic Computer-Aided Drafting [formerly DRAF 2408]

(48.0101) (2-4) 4 hours

An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating and scaling objects, adding text and dimensions, using layers, coordinating systems; as well as input and output devices. Lab fee required. (SCANS 1, 3, 5, 8, 9, 10) Prerequisite/corequisite: DFTG 1405 or consent of department chair.

DFTG 1417 Architectural Drafting – Residential [formerly DRAF 2401]

(48.0102) (2-4) 4 hours

Architectural drafting procedures, practices and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. This course is the capstone course for the Architectural Detailer Certificate. Lab fee required. (SCANS 1, 2, 3, 8) Prerequisite: DFTG 1405.

DFTG 1433 Mechanical Drafting [formerly DRAF 2402]

(48.0105) (2-4) 4 hours

An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, isometrics and oblique drawings, including bill of materials and geometric tolerancing. This course is the capstone course for the Machine Drafting Detailer Certificate. Lab fee required. (SCANS 1, 3, 5, 8,9) Prerequisite: DFTG 1405.

DFTG 2381 Cooperative Education – Drafting [formerly DRAF 2377]

(48.0101) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

DFTG 2402 Machine Drafting [formerly DRAF 2412]

(48.0105) (2-4) 4 hours

Production of detail and assembly drawings of machines, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings. Lab fee required. (SCANS 2, 3, 5, 6, 8, 9) Prerequisite: DFTG 1433.

DFTG 2410 Structural Drafting [formerly DRAF 2406]

(48.0101) (2-4) 4 hours

Discussion of detail drawing of structural shapes for fabrication with emphasis on framed and seated connectors and beam and column detailing. Designed to meet the standards of American Institute of Steel Construction, including units on

concrete detailing conforming to American Concrete Institute standards. Offered spring semester odd numbered years. This course is the capstone course for the Structural Drafting Detailer Certificate. Lab fee required. (SCANS 1, 3, 6, 9) Prerequisite: DFTG 1405.

DFTG 2412 Technical Illustration
[formerly DRAF 2403]
(48.0101) (2-4) 4 hours
Topics include pictorial drawing including isometrics, obliques, perspectives, charts and graphs; shading and transfer lettering; and use of different media. Lab fee required. SCANS (1, 8, 9) Prerequisite: DFTG 1405.

DFTG 2419 Intermediate Computer-Aided Drafting
[formerly DRAF 2418/DFTG 1452]
(48.0101) (2-4) 4 hours
A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, scripted files, customized program menus, and extracted attributes. Introduction to three-dimensional drafting. Lab fee required. (SCANS 2, 6, 8, 9) Prerequisite: DFTG 1409.

DFTG 2423 Piping Drafting
[formerly DRAF 2404/DFTG 1444]
(48.0101) (2-4) 4 hours
A study of pipe fittings, symbols, specifications and their applications to a piping process system. This application will be demonstrated through the creation of symbols and their usage in flow diagrams, plans, elevations and isometrics. Offered spring semester even numbered years. This course is the capstone course for the Pipe Drafting Detailer Certificate. Lab fee required. (SCANS 1, 3, 6, 8, 9) Prerequisite: DFTG 1405.

DFTG 2428 Architectural Drafting – Commercial
[formerly DRAF 2411/DFTG 1454]
(48.0102) (2-4) 4 hours
Architectural drafting procedures, practices and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Fall only. Lab fee required. (SCANS 3, 6, 9, 11) Prerequisite: DFTG 1417.

DFTG 2459 Technical Presentations
[formerly DRAF 2413/DFTG 1491]
(48.0101) (2-4) 4 hours
A study of presentation techniques and methods used in the drafting field. Lab fee required. (SCANS 8, 9, 10) Prerequisite: DFTG 2412.

Economics (see Social Sciences)

Education

Advisor: Ned Pilcher, dean.

Course of Study for Associate in Arts Degree

Education Majors

	Semester Hrs
General Education Requirements	**48-49**
COSC 1301 Introduction to Computer Systems	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 United States History to 1877	3
HIST 1302 United States History From 1877	3
MATH 1314 College Algebra or MATH 1332 Structures of College Mathematics I or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2308 Child Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
*An additional college level math or laboratory science	3-4
Any four-hour laboratory science	4
Any three-hour fine arts course	3

ELEMENTARY EDUCATION

Electives (Should be selected from social science, natural science, mathematics, foreign languages and fine arts) **14-15**

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) **14-15**

Total Semester Hours **63**

*These will meet the six to eight hours required in either math or science for an associate of arts degree.

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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Electrical Technology

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**40**
CETT 1403 DC Circuits (ELEC 1401)	4
CETT 1441 Solid State Circuits (ELEC 1404)	4
CETT 1457 Linear Integrated Circuits (ELEC 2400)	4
CETT 2381 Cooperative Education – Computer Engineering Technology/Technician (ELEC 2377)	3
EEIR 1409 National Electrical Code (ELEC 2410/ IEIR 1491)	4
ELMT 1301 Basic Programmable Controllers (ELEC 2411)	3
ELMT 1491 Special Topics: Electrical Test Preparation – Journeyman	4
ELMT 2339 Advanced Programmable Logic Controllers	3
ELPT 2451 Master Electrician Exam Review I (EEIR 1491)	4
IEIR 1312 Distribution Systems (ELEC 2302)	3
IEIR 1410 Motor Controls (ELEC 2404)	4
Related Requirements	**4**
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
Total Semester Hours	**64**

Credit for electrical/electronics 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.

Course of Study for Associate in Applied Science Degree
Electronics Technology

	Semester Hrs
General Education Requirements	**20**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**42**
CETT 1403 DC Circuits (ELEC 1401)	4
CETT 1405 AC Circuits (ELEC 1403)	4
CETT 1415 Digital Applications ELEC 1402)	4
CETT 1441 Solid State Circuits (ELEC 1404)	4
CETT 1445 Microprocessors (ELEC 1408)	4
CETT 1457 Linear Integrated Circuits (ELEC 2400)	4
CETT 1491 Special Topics: Circuit Analysis (ELEC 2414)	4
CETT 2381 Cooperative Education – Computer Engineering Technology/Technician (ELEC 2377)	3
CETT 2435 Advanced Microprocessors (ELEC 2408)	4
IEIR 1312 Distribution Systems (ELEC 2302)	3
IEIR 1410 Motor Controls (ELEC 2404)	4
Related Requirement	**4**
DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
Total Semester Hours	**66**

Credit for electrical/electronics 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

Level I certificates are TASP-waived.

Level I – Electrical Technician

Semester Hrs

Technical Core

CETT 1403 DC Circuits (ELEC 1401) 4
EEIR 1409 National Electrical Code (ELEC 2410/ IEIR 1491) 4
ELMT 1301 Basic Programmable Logic Controllers (ELEC 2411) 3
IEIR 1410 Motor Controls (ELEC 1410) 4

Total Semester Hours 15

Level II – Advanced Electrical Technician

Semester Hrs

General Education Core

COSC 1301 Introduction to Computer Systems 3
MATH 1314 College Algebra or higher level math .. 3
PSYC 2302 Applied Psychology 3

Technical Core

CETT 1403 DC Circuits (ELEC 1401) 4
CETT 1441 Solid State Circuits (ELEC 1404) 4
CETT 1457 Linear Integrated Circuits (ELEC 2400) ... 4
EEIR 1409 National Electrical Code (ELEC 2410/ IEIR 1491) 4
ELMT 1301 Basic Programmable Controllers (ELEC 2411) 3
ELMT 1491 Special Topics: Electrical Test Preparation – Journeyman 4
ELMT 2339 Advanced Programmable Logic Controllers 3
ELPT 2451 Master Electrician Exam Review I (EEIR 1491) 4
IEIR 1312 Distribution Systems (ELEC 2302) 3
IEIR 1410 Motor Controls (ELEC 2404) 4

Total Semester Hours 46

Certificates in Electronics Technology

Level I certificates are TASP-waived.

Level I – Electronics Technician

Semester Hrs

Technical Core

CETT 1403 DC Circuits (ELEC 1401) 4
CETT 1405 AC Circuits (ELEC 1403) 4
CETT 1415 Digital Applications (ELEC 1402) 4
CETT 1441 Solid State Circuits (ELEC 1404) 4
CETT 1445 Microprocessors (ELEC 1408) 4

Total Semester Hours 20

Level II – Advanced Electronics Technician

Semester Hrs

General Education Core

COSC 1301 Introduction to Computer Systems 3
ENGL 1312 Report Writing 3
MATH 1314 College Algebra or higher level math .. 3

Technical Core

CETT 1403 DC Circuits (ELEC 1401) 4
CETT 1405 AC Circuits (ELEC 1403) 4
CETT 1415 Digital Applications ELEC 1402) 4
CETT 1441 Solid State Circuits (ELEC 1404) 4
CETT 1445 Microprocessors (ELEC 1408) 4
CETT 1457 Linear Integrated Circuits (ELEC 2400) 4
CETT 1491 Special Topics: Circuit Analysis (ELEC 2414) 4
CETT 2435 Advanced Microprocessors (ELEC 2408) 4
IEIR 1410 Motor Controls (ELEC 2404) 4

Total Semester Hours 45

ELECTRICAL/ELECTRONICS TECHNOLOGY COURSES

CETT 1403 DC Circuits [formerly ELEC 1401]
(15.0301) (3-3) 4 hours
A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab fee required. (SCANS 3, 5, 8, 9) Prerequisite: None.

CETT 1405 AC Circuits [formerly ELEC 1403]
(15.0301) (3-3) 4 hours
A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers and resonance. Lab fee required. (SCANS 3, 5, 8, 9) Prerequisite: CETT 1403.

CETT 1415 Digital Applications [formerly ELEC 1402]
(15.0301) (3-3) 4 hours
An investigation of combinational and sequential logic elements and circuits with emphasis on

design and troubleshooting of combinational and sequential circuits. Lab fee required. (SCANS 5, 6, 7, 8, 9, 10) Prerequisite: None.

CETT 1441 Solid State Circuits
[formerly ELEC 1404]
(15.0301) (3-3) 4 hours
A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements and analysis. Lab fee required. (SCANS 1, 5, 7, 8, 9) Prerequisite: CETT 1403.

CETT 1445 Microprocessor
[formerly ELEC 1408]
(15.0301) (3-3) 4 hours
An introductory course in microprocessor software and hardware; its architecture, timing sequence, operation and programming; and discussion of appropriate software diagnostic language and tools. Lab fee required. (SCANS 2, 3, 7, 8, 9) Prerequisite: CETT 1415.

CETT 1457 Linear Integrated Circuits
[formerly ELEC 2400]
(15.0301) (3-3) 4 hours
A study of the characteristics, operations, stabilization, testing and feedback techniques of linear integrated circuits. Application in computation, measurements, instrumentation and active filtering. Lab fee required. (SCANS 5, 7, 8, 9) Prerequisite: CETT 1441.

CETT 1491 Special Topics in Electronics: Circuit Analysis
[formerly ELEC 2414]
(15.0301) (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 designing and evaluating analog circuitry with the computer. Students will write programs for diagnosis and design and analyze resistive, reactive, transistor and other circuits. (SCANS 2, 6, 7, 8, 9) Prerequisite: CETT 1441.

CETT 2381 Cooperative Education – Computer Engineering Technology/Technician
[formerly ELEC 2377]
(15.0301) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

CETT 2435 Advanced Microprocessors
[formerly ELEC 2408]
(15.0301) (3-3) 4 hours
An advanced course utilizing the microprocessor in control systems and interfacing. Emphasis on microprocessor hardware and implementation of peripheral interfacing. Lab fee required. (SCANS 5, 8, 9) Prerequisite: CETT 1445.

EEIR 1409 National Electrical Code
[formerly ELEC 2410/IEIR 1491]
(47.0101) (3-3) 4 hours
Applications of the National Electrical Code for residential, commercial and industrial wiring. Emphasis on designing, contructing, and troubleshooting electrical systems. The electrical lab will enable the student to choose the material, tools, equipment and procedures necessary to identify, construct and troubleshoot electrical circuitry. Lab fee required. (SCANS 5, 8, 9) Prerequisite: None.

ELMT 1301 Basic Programmable Logic Controllers
[formerly ELEC 2411]
(15.0403) (2-2) 3 hours
An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic and interfacing of equipment. Lab fee required. (SCANS 5, 8, 9) Prerequisite: IEIR 1410.

ELMT 1491 Special Topics in Electrical: Electrical Test Preparation – Journeyman
(15.0403) (4-0) 4 hours
Presents applications of the National Electrical Code for students preparing for local or state journeyman electrical tests. Includes concepts in residential, commercial and industrial wiring. Emphasis is placed on the interpretation of the language, notes, tables and other information presented in the National Electrical Code. (SCANS 5, 8, 9) Prerequisite: None.

ELMT 2339 Advanced Programmable Logic Controllers

(15.0403) (2-2) 3 hours

Advanced concepts in programmable logic controllers including advanced processors, programming and interfacing techniques, and specialized applications. Lab fee required. (SCANS 5, 8, 9) Prerequisite: ELMT 1301.

ELPT 2451 Master Electrician Exam Review I

[formerly EEIR 1491]

(46.0301) (4-0) 4 hours

An introductory study of electrical theory, code calculations and interpretations applicable to becoming a master electrician. Emphasis on residential, commercial and industrial installations using the current edition of the National Electric Code (NEC) and local ordinances. (SCANS 5, 8, 9) Prerequisite: None.

IEIR 1312 Distribution Systems

[formerly ELEC 2302]

(47.0105) (3-0) 3 hours

Fundamentals of distribution systems including single phase and three phase systems, grounding, ground fault protection and the national electrical code. (SCANS 6, 10, 11) Prerequisite: None.

IEIR 1410 Motor Controls

[formerly ELEC 2404]

(47.0105) (3-3) 4 hours

General principles and fundamentals of electrical controls and control components including starters, troubleshooting techniques, various protective devices, schematics and diagrams. Lab fee required. (SCANS 5, 8, 9) Prerequisite: None.

Emergency Medical Services Professional

(Formerly Emergency Medical Technology)

Faculty: LeeDon Martin, chair; Brandon Tate, 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.

Students considering enrolling in EMSP 1160 and EMSP 1501 must have approval from the department chair before enrolling.

Enrollment in advanced EMSP courses 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 the Student Development Center.

Note: A student enrolled in any EMSP course is required to have liability insurance and health and accident insurance each semester.

In addition to the student liability, the student will be responsible for other necessary equipment as well. This equipment is mandatory for class and the student should be aware of the extra costs involved. To get a list of the necessary equipment, the student should contact the department chair or one of the faculty members before enrolling in the class.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Emergency Medical Services Professional

	Semester Hrs
Prerequisite courses	
EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic (EMED 1301)	1
EMSP 1355 Trauma Management	3
EMSP 1356 Patient Assessment and Airway Management	3
EMSP 1501 Emergency Medical Technician – Basic (EMED 1501)	5
EMSP 2348 Emergency Pharmacology	3
HPRS 1106 Medical Terminology (BIOL 1170)	1
FIRST YEAR	
Fall Semester	
EMSP 1263 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical I	2
EMSP 1438 Introduction to Advance Practice	4
EMSP 2243 Assessment Based Management	2
EMSP 2430 Special Populations	4
EMSP 2434 Medical Emergencies	4
Mid-Winter Semester	
EMSP 2438 EMS Operations	4
Spring Semester	
BIOL 2404 Human Anatomy & Physiology	4
EMSP 2160 Clinical – Emergency Medical Technology/Technician – Cardiology Clinical	1
EMSP 2260 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical II	2
EMSP 2261 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical III	2
EMSP 2444 Cardiology	4
PHED (any one-hour activity course)	1
SECOND YEAR	
Fall Semester	
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1302 Composition and Literature	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
PHED (any one-hour activity course)	1
PSYC 2301 Introduction to Psychology	3
Total Hours	**63**

Course of Study for Certificate of Completion

Level I certificates are TASP waived.

Level I – Basic Emergency Medical Technician

Semester Hrs

Major Requirements

- EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic (EMED 1301) 1
- EMSP 1355 Trauma Management 3
- EMSP 1356 Patient Assessment and Airway Management 3
- EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
- EMSP 2348 Emergency Pharmacology 3

Total Semester Hours 15

Level I – Intermediate Emergency Medical Technician

Semester Hrs

Prerequisites

- EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic (EMED 1301) 1
- EMSP 1355 Trauma Management 3
- EMSP 1356 Patient Assessment and Airway Management 3
- EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
- EMSP 2348 Emergency Pharmacology 3

Fall Semester

- EMSP 1263 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical I .. 2
- EMSP 1438 Introduction to Advance Practice 4
- EMSP 2243 Assessment Based Management 2
- EMSP 2430 Special Populations 4
- EMSP 2434 Medical Emergencies 4

Total Hours 31

Level I – Emergency Medical Services Professional – Paramedic

Semester Hrs

Prerequisite courses

- EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic (EMED 1301) 1
- EMSP 1355 Trauma Management 3
- EMSP 1356 Patient Assessment and Airway Management 3
- EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
- EMSP 2348 Emergency Pharmacology 3

FIRST YEAR

Fall Semester

- EMSP 1263 Clinical -- Emergency Medical Technology/Technician – Paramedic Clinical I .. 2
- EMSP 1438 Introduction to Advance Practice 4
- EMSP 2243 Assessment Based Management 2
- EMSP 2430 Special Populations 4
- EMSP 2434 Medical Emergencies 4

Mid-Winter Semester

- EMSP 2438 EMS Operations 4

Spring Semester

- EMSP 2160 Clinical – Emergency Medical Technology/Technician – Cardiology Clinical 1
- EMSP 2260 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical II ... 2
- EMSP 2261 Clinical – Emergency Medical Technology/Technician – Paramedic Clinical III .. 2
- EMSP 2444 Cardiology 4

Total Hours 44

EMERGENCY MEDICAL SERVICES PROFESSIONAL COURSES

EMSP 1160 Clinical – Basic Clinical [formerly EMED 1301]

(51.0904) (0-6) 1 hour

A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 4, 5, 7, 8, 9,10) Prerequisites: 18 years of age and consent of department chair. Corequisites: EMSP 1355, EMSP 1356, EMSP 1501, and EMSP 2348.

EMSP 1263 Clinical – Paramedic Clinical I

(51.0904) (0-8) 2 hours

An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor),

generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 5, 8, 9, 10, 11) Prerequisites: EMSP 1160, EMSP 1355, EMSP 1501, and EMSP 2348. Corequisites: EMSP 1438, EMSP 2243, EMSP 2430, and EMSP 2434.

EMSP 1355 Trauma Management

(51.0904) (2-2) 3 hours

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 1160, EMSP 1356, EMSP 1501, and EMSP 2348.

EMSP 1356 Patient Assessment and Airway Management

(51.0904) (2-2) 3 hours

A detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 1160, EMSP 1355, EMSP 1501, and EMSP 2348.

EMSP 1438 Introduction to Advanced Practice

(51.0904) (3-2) 4 hours

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 1263, EMSP 2243, EMSP 2430, and EMSP 2434.

EMSP 1501 Emergency Medical Technician – Basic

[formerly EMED 1501]

(51.0904) (4-4) 5 hours

Introduction to the level of Emergency Medical Technician (EMT) – Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services. Lab fee required. (SCANS 1, 2, 4, 5, 7, 8, 9, 10) Prerequisites: 18 years of age and consent of department chair. Corequisites: EMSP 1160, EMSP 1355, EMSP 1356, and EMSP 2348.

EMSP 2160 Clinical – Cardiology Clinical

(51.0904) (0-3) 1 hour

An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 4, 5, 7, 8, 9, 10) Corequisites: EMSP 2260, EMSP 2261, and EMSP 2444.

EMSP 2243 Assessment Based Management

(51.0904) (2-0) 2 hours

The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management. (SCANS 1, 2, 4, 5, 7, 8, 9, 10) Corequisites: EMSP 1263, EMSP 1438, EMSP 2430 and EMSP 2434.

EMSP 2260 Clinical – Paramedic Clinical II

(51.0904) (0-9) 2 hours

An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 5, 6, 9, 10, 11) Corequisites: EMSP 2160, EMSP 2261, and EMSP 2444.

EMSP 2261 Clinical – Paramedic Clinical III

(51.0904) (0-9) 2 hours

An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 3, 5, 8, 9, 10, 11) Corequisites: EMSP 2160, EMSP 2260, and EMSP 2444.

EMSP 2348 Emergency Pharmacology

[formerly EMED 2201]

(51.0904) (3-0) 3 hours

A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. Course is designed to compliment Cardiology, Special Populations, and Medical Emergency courses. (SCANS 1, 3, 6, 9) Prerequisite: None.

EMSP 2430 Special Populations

(51.0904) (4-0) 4 hours

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 1263, EMSP 1438, EMSP 2243, and EMSP 2434.

EMSP 2434 Medical Emergencies

(51.0904) (3-3) 4 hours

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 1263, EMSP 1438, EMSP 2243, and EMSP 2430.

EMSP 2438 EMS Operations

(51.0904) (3-2) 4 hours

A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Prerequisite: None.

EMSP 2444 Cardiology

(51.0904) (3-2) 4 hours

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. Lab fee required. (SCANS 1, 2, 5, 8, 9, 10, 11) Corequisites: EMSP 2160, EMSP 2260, and EMSP 2261.

Engineering

Faculty: Dr. Charles Sweatt, chair; James McPherson.

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	**35**
ENGL 1301 Composition and Rhetoric	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 2413 Calculus I	4
PHED (any two one-hour activity courses)	2
PHYS 2425 Engineering Physics I	4
PHYS 2426 Engineering Physics II	4
SPCH 1321 Business and Professional Speech	3
Major Requirements	**20**
ENGR 1304 Engineering Drawing	3
ENGR 2301 Mechanics I	3
ENGR 2302 Mechanics II	3
MATH 2414 Calculus II	4
MATH 2415 Calculus III	4
MATH 2320 Differential Equations	3
Related Requirements.	**12**
CHEM 1111 Fundamentals of Chemistry Lab I	1
CHEM 1112 Fundamentals of Chemistry Lab II.	1
CHEM 1311 General Inorganic Chemistry I	3
CHEM 1312 General Inorganic Chemistry II	3
COSC 1415 Introduction to Computer Science	4
Total Semester Hours	**67**

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

(48.0101.5102) (2-4) 3 hours
Presents care and use of drawing instruments, freehand 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 2301 Mechanics I

(14.1101.5210) (3-0) 3 hours
A basic mechanics course utilizing vectors. 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

(14.1101.5310) (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: Dr. Donna Smith, chair; Dr. Judith Cornes, Dr. Beverly Forsyth, Wayne Johnson, Dr. Mark Jordan, Kathryn Keen, Dr. Daryl Lane, Dr. David Mulry, Ivan Reyez, Ann Rusnak, Dr. Michael White, Lynn Whitson.

English

Language makes us human, not only raising us above a mere animal-like existence but also allowing us to create societies and culture by shaping and controlling our thought. Language is fundamental not only to our survival and progress but also to the form of our literary creations; it reflects the heritage and dignity of the human condition. The English department, therefore, is committed to providing comprehensive instruction in composition and literature and creating the finest educational opportunities possible for students who have the desire and ability to learn.

Specifically, it provides the first two years of English and pre-professional courses for transfer students, occupational/technical writing courses for students in specialized vocational fields, developmental and general education to prepare students for the TASP and higher level writing and critical thinking skills, courses to meet various community needs, and opportunities for personal enrichment. In sum, the English department offers excellence in its courses, services and practices. It affirms equal access for all individuals within the diverse student population and approaches all endeavors with the highest standards of ethics and professionalism.

Tutoring Labs

Tutoring is available free of charge to OC students. The Tutoring Lab is located in the Learning Resources Center (LRC), Room 301. The Student Learning Center also offers an open access computer lab in LRC 302 and the Basic Skills Lab in LRC 303.

All labs provide 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.

Course of Study for Associate in Arts Degree
English Major

	Semester Hrs
General Education Requirements	**48**
COSC 1301 Introduction to Computer Systems	3
Foreign Language (FREN, GERM or SPAN 1411 and 1412)	8
Foreign Language (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 (college level)	6
PHED (any two one-hour activity courses)	2
Science (two sequential laboratory courses)	8
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**12**
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
Approved Electives (see department chair for options)	**3**
Total Semester Hours	**63**

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
(32.0108.5312) (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. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0172 Focus and Unity
(32.0108.5312) (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. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0173 Organization and Development

(32.0108.5312) (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 other composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0174 Usage

(32.0108.5312) (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, punctuation, modifier usage, plural and possessive conventions, and precise and appropriate word choice as well as other composition techniques. Prepares student for the TASP examination and for ENGL 0370 and ENGL 1301. Credit probably not transferable. Does not satisfy requirements for any degree plan at Odessa College. (SCANS 2, 9) Prerequisite: None.

ENGL 0370 Basic English

(32.0108.5312) (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 TASP and ENGL 1301. The student must attain a "C" or better in this course or pass the English portion of the TASP before enrolling in ENGL 1301. Credit probably not transferable. Does not satisfy requirements for any degree plan at Odessa College. Lab fee required for ENGL 0370 WP (Word Processing). (SCANS 2, 9) 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

(23.0401.5112) (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. Lab fee required for ENGL 1301 (Word Processing). (SCANS 1, 2, 9) Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

ENGL 1302 Composition and Literature

(23.0401.5112) (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 1312 Report Writing

(23.1101.5112) (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 universities regarding course transferability. Lab fee required for ENGL 1312 (Word Processing). (SCANS 2, 9, 11) Prerequisite: ENGL 0370 passed with a "C" or better or a satisfactory placement score.

ENGL 2307 Creative Writing

(23.0501.5112) (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

(23.1101.5112) (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. Lab fee required for ENGL 2311 (Word Processing). (SCANS 2, 6, 9) Prerequisite: ENGL 1302 or consent of the department chair.

ENGL 2322 Survey of British Literature I

(23.0801.5112) (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

(23.0801.5112) (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

(23.0701.5112) (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

(23.0701.5112) (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

(23.0301.5212) (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

(23.0301.5212) (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.

ENGL 2371 Advanced Literature Analysis

(23.0301.5335) (3-0) 3 hours
Consists of selections of literature organized by genre, period or geographical region. Course descriptions are available each semester prior to registration. This course may be repeated for credit when topics vary. (SCANS 1, 2, 6, 9, 11) 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 POFT 1127 Introduction to Keyboarding, a one-hour, nine-week course that develops touch-method skills on the alpha-numeric keyboard.

Students have an alternative to the regular ENGL 1302 course listed above. The alternative is ENGL 1302 (Science Fiction), which is based on science fiction and fantasy novels, stories and movies.

Students who are pursuing a certificate of technology or an associate in applied science degree in certain technical programs may enroll in ENGL 1312 Report Writing and/or ENGL 2311 Technical and Report Writing, instead of ENGL 1301 Composition and Rhetoric, to meet the general education requirements in English for those technical programs.

During the fall and spring semesters, the department usually offers an alternate method for completing a sequence of two related three-hour English courses in the same semester. In addition to the regularly scheduled three-hour per week section 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 eight weeks of the semester, students complete the first three-hour course. At that point, students may register for and continue with the second three-hour course during the last eight weeks of the semester. Check the published schedule of classes to determine which courses will be offered in this manner for the coming semester.

A number of English classes are offered via the Internet. Students wishing to take an Internet class are strongly recommended to have their own email account, free and regular access to a computer and sufficient technology to access the multimedia components of the World Wide Web.

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 other 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**
COSC 1301 Introduction to Computer Systems	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
MATH (college level)	3
PHED (any two one-hour activity courses)	2
Science (two sequential laboratory courses)	8
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**22**
Foreign Language 1411 and 1412	8
Foreign Language 1411 and 1412 (second language)	8
Foreign Language (sophomore level)	6
Approved Elective (see department chair for options)	**3**
Total Semester Hours	**68**

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

(16.0901.5113) (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. Lab fee required. (SCANS 2, 9) Prerequisite: None.

FREN 1412 First Year French II

(16.0901.5113) (3-2) 4 hours

A continuation of FREN 1411. Has same purposes and uses same techniques. Lab fee required. (SCANS 2, 9) Prerequisite: FREN 1411 or its equivalent.

FREN 2311 Second Year French I

(16.0901.5213) (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

(16.0901.5231) (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
(16.0501.5113) (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. Lab fee required. (SCANS 2, 9) Prerequisite: None.

GERM 1412 First Year German II
(16.0501.5113) (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
(16.0501.5213) (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
(16.0501.5213) (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
(16.1203.5113) (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. Lab fee required. (SCANS 2, 9) Prerequisite: None.

LATI 1412 First Year Latin II
(16.1203.5113) (3-2) 4 hours
A continuation of LATI 1411. Has same purposes and techniques but goes further with vocabulary building and more advanced readings. Lab fee required. (SCANS 2, 9) Prerequisite: LATI 1411 or its equivalent and consent of the instructor.

Spanish

SPAN 1300 Conversational Spanish I
(16.0905.5413) (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 1305 Intensive Spanish Practicum
(16.0905.5113) (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 1310 Conversational Spanish II
(16.0905.5413) (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 1411 First Year Spanish I
(16.0905.5113) (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 elements self-paced. Lab fee required. (SCANS 2, 9) Prerequisite: None.

SPAN 1412 First Year Spanish II
(16.0905.5113) (3-2) 4 hours
Conducted in Spanish, a continuation of SPAN 1411. Emphasizes more advanced conversation: pronunciation, fluency and vocabulary. Presents more advanced grammar and composition. May require up to two hours per week of individual practice in the language lab. Individual help available. Many elements self-paced. Lab fee required. (SCANS 2, 9) Prerequisite: SPAN 1411 or its equivalent.

SPAN 2311 Second Year Spanish I
(16.0905.5213) (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
(16.0905.5213) (3-0) 3 hours
Conducted in Spanish, a continuation of SPAN 2311. Emphasizes conversation based on reading assignments. Includes grammar and composition. Many elements self-paced. (SCANS 2, 9) Prerequisite: SPAN 2311 or its equivalent.

SPAN 2313 Spanish for Native Speakers of Spanish I
(16.0905.5413) (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 2315 Spanish for Native Speakers of Spanish II
(16.0905.5413) (3-0) 3 hours
A continuation of SPAN 2313. Examines structure of the language and uses advanced material for reading and writing. (SCANS 2, 9) Prerequisite: SPAN 2313 or consent of the instructor.

SPAN 2321 Spanish Literature I
(16.0905.5313) (3-0) 3 hours
Conducted in Spanish, 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
(16.0905.5313) (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 2321, its equivalent or consent of the instructor.

Environmental (see Occupational Safety and Health Technology)

Fire Technology

Faculty: LeeDon Martin, chair; Brandon Tate; Dave Parker, Fire Academy Coordinator.

The fire technology program assists in the development of meaningful educational experiences for pre-service and in-service firefighters. 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.

Note: Enrollment in EMSP 1160 requires student liability insurance and health and accident insurance.

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.

All cadets enrolled in the Fire Academy must pass and receive an EMT-Basic certification from the Texas Department of Health. This certification must be received by the cadet by the completion of the fall semester. Failure to receive an EMT-Basic certification by the cadet will result in the cadet being removed from the Odessa College Fire Academy.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Fire Technology

FIRST YEAR

Semester Hrs

First Semester

EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic Clinical (EMED 1301) 1
EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
FIRT 1301 Fundamentals of Fire Protection (FIRE 1402) 3
FIRT 1305 Public Education Programs (FIRE 2307) 3
FIRT 1311 Fire Service Hydraulics (FIRE 1204) 3

Second Semester

FIRT 1307 Fire Prevention Codes & Inspection (FIRE 1306) 3
FIRT 1315 Hazardous Materials I (FIRE 1505) 3
FIRT 1319 Firefighter Health & Safety (FIRE 1401) .. 3
FIRT 1331 Firefighting Strategies & Tactics I (FIRE 1503) 3
FIRT 1353 Legal Aspects of Fire Protection 3

SECOND YEAR

Third Semester

ENGL 1301 Composition & Rhetoric or ENGL 1312 Report Writing 3
EPCT 1301 Hazardous Waste Operations and Emergency Response (OSHA 2396) 3
FIRT 2331 Firefighting Strategies & Tactics II (FIRE 2315) 3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government . 3
HPRS 1106 Medical Terminology (BIOL 1170) 1
MATH 1332 Structures of College Mathematics I or higher-level math 3
PHED (any one-hour activity course) 1

Fourth Semester

BMGT 1305 Communications in Management 3
COSC 1301 Introduction to Computer Systems 3
Elective 3
FIRT 2380 Cooperative Education – Fire Protection & Safety Technology/ Technician (FIRE 2377) 3
PHED (any one-hour activity course) 1
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech 3

Total Semester Hours 63

Course of Study for Associate in Applied Science Degree
Fire Administration

FIRST YEAR

Semester Hrs

First Semester

EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic Clinical (EMED 1301) 1

EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
FIRS 1--`11--401 Firefighter Certification I 4
FIRS 1407 Firefighter Certification II 4

Second Semester

FIRS 1413 Firefighter Certification III 4
FIRS 1419 Firefighter Certification IV 4
FIRS 1423 Firefighter Certification V 4
FIRS 1429 Firefighter Certification VI 4
FIRS 1433 Firefighter Certification VII 4

SECOND YEAR

Third Semester

ENGL 1301 Composition & Rhetoric or ENGL 1312 Report Writing 3
EPCT 1301 Hazardous Waste Operations and Emergency Response (OSHA 2396) 3
FIRT 2331 Firefighting Strategies & Tactics II (FIRE 2315) 3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government ... 3
MATH 1332 Structures of College Mathematics I or higher-level math 3
PHED (any one-hour activity course) 1

Fourth Semester

BMGT 1305 Communications in Management 3
COSC 1301 Introduction to Computer Systems 3
FIRT 1305 Public Education Programs (FIRE 2307) ... 3
FIRT 2380 Cooperative Education – Fire Protection & Safety Technology/Technician (FIRE 2377) 3
PHED (any one-hour activity course) 1
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech 3

Total Semester Hours 66

A certificate of technology may be earned by those who do not wish to pursue an associate degree by completing the course of study listed below.

Certificates of Technology

Level I – Basic Fire Fighter Academy

Level I certificates are TASP-waived.

Semester Hrs

First Semester

EMSP 1160 Clinical – Emergency Medical Technology/Technician – Basic Clinical (EMED 1301) 1
EMSP 1501 Emergency Medical Technician – Basic (EMED 1501) 5
FIRS 1401 Firefighter Certification I 4
FIRS 1407 Firefighter Certification II 4

Second Semester

FIRS 1413 Firefighter Certification III 4
FIRS 1419 Firefighter Certification IV 4
FIRS 1423 Firefighter Certification V 4
FIRS 1429 Firefighter Certification VI 4
FIRS 1433 Firefighter Certification VII 4

Total Semester Hours 34

Level III – Advanced Fire Technology

May only be awarded along with or following completion of associate or higher-level degree.

Major Requirements

FIRT 1303 Fire & Arson Investigation I (FIRE 2301) 3
FIRT 1309 Fire Administration I (FIRE 2303) 3
FIRT 1329 Building Codes and Construction (FIRE 2302) 3

Total Semester Hours 9

FIRE TECHNOLOGY COURSES

FIRS 1401 Firefighter Certification I

(43.0203) (3-3) 4 hours

An introduction to firefighter safety and development. Topics include Texas Commission on Fire Protection Rules and Regulations, firefighter safety, fire science, personal protective equipment, self-contained breathing apparatus, and fire reports and records. Students will discuss core fire service subjects; demonstrate the use of self-contained breathing apparatus; explain and identify fire service reports and records; relate fire service subject matter to firefighting safety and survival. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1407 Firefighter Certification II

(43.0203) (2-4) 4 hours

The study of basic principles and skill development in handling fire service hose and ladders. Topics include the distribution system of water supply, basic building construction and emergency service communication, procedures and equipment. Students will describe hose construction, care, maintenance and testing; demonstrate hose rolls, drags, carries and loads; identify the principles of ladder construction, care and testing; identify the types of water distribution systems and demonstrate proficiency in water supply operations; list the types of

construction and building material hazards that affect firefighter safety; state the procedures of receiving alarms and identify alarm devices, equipment and radio procedures. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1413 Firefighter Certification III

(43.0203) (2-4) 4 hours

General principles of fire apparatus, pump operations, fire streams and public operations as they relate to fundamental development of basic firefighter skills. Students will identify the types of fire apparatus; describe the operation of fire pumps; demonstrate fire stream operations and fire pump operations; and explain the importance of public relations as a member of fire service. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1419 Firefighter Certification IV

(43.0203) (2-4) 4 hours

A study of equipment, tactics and procedures used in forcible entry, ventilation, salvage and overhaul. Preparation for certification as a basic firefighter. Students will identify and safely use, maintain and clean forcible entry tools; describe the effects of proper ventilation, decisions to ventilate and demonstrate methods of ventilation; describe the purpose of salvage; demonstrate various folds and rolls of covers, salvage throws, use of water catchalls and various mop up procedures; describe and identify safety precautions, dangerous building conditions, value of overhaul and overhaul procedures; and demonstrate safe handling of debris. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1423 Firefighter Certification V

(43.0203) (2-4) 4 hours

The study of ropes and knots, rescue procedures and techniques, and hazardous materials. Preparation for certification as a basic firefighter. Students will describe and demonstrate proper rescue techniques to include search, removal and packing of victims; describe and demonstrate life safety, harnesses, repelling and vehicle extrication; describe and demonstrate various parts of the rope, various knots and their uses; and identify definitions of hazardous materials and describe incident management of hazardous materials. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1429 Firefighter Certification VI

(43.0203) (2-4) 4 hours

The study of fire inspection techniques and practices, public transportation, fire cause determination. Topics include fire protection systems, wildland fire, and pre-incident planning. Preparation for certification as a basic firefighter. Students will identify and describe the procedure to determine point of origin, events of fire, cause, factors indicating arson, the protection of evidence and the importance of securing the fire scene; list the components of pre-incident planning, and perform a facility survey; explain wildland fire suppression terminology and methods including location, sizing of fire, suppression techniques and safety. Describe the purpose of National Fire Protection Association (NFPA) 13 and (NFPA) 14 standards applicable to fire protection systems; state recommended procedures using apparatus, equipment and resources available as they apply to the modes of public transportation; and explain the purpose of the NFPA 101, life safety code, applicable to fire prevention inspections. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRS 1433 Firefighter Certification VII

(43.0203) (2-4) 4 hours

An in-depth study and practice of simulated emergency operations and hands-on live fire training exercises, incident command procedures, and combined operations using proper extinguishing methods. Emphasis on safety. Students will describe the general requirements of National Fire Protection Association (NFPA) standards applicable to live fire; extinguish or control live fires while using hose streams and portable extinguishers safely and effectively; and operate within a command structure utilized by all participants. This is the capstone course for the Basic Fire Fighter Academy Level I certificate. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisite: Consent of department chair.

FIRT 1191 Special Topics in Fire Protection and Safety Technology/ Technician [formerly FIRE 1107]

(43.0201) (0-3) 1 hour

Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Learning outcomes/objectives are determined by local occupational need and business and industry trends. (SCANS 3, 7, 8, 9, 10) Prerequisite: None.

FIRT 1301 Fundamentals of Fire Protection [formerly FIRE 1402]
(43.0202) (3-0) 3 hours
Study of the philosophy, history and fundamentals of public and private fire protection. Topics include statistics of fire and property loss, agencies involved in public and private protection, legislative development, departmental organization, training and staffing. Students will describe a modern fire protection agency; outline the organizational and staffing requirements for fire protection; and identify public and private fire protection agencies. (SCANS 1, 2, 6, 7, 8, 9) Prerequisite: None.

FIRT 1303 Fire and Arson Investigation I [formerly FIRE 2301]
(43.0201) (3-0) 3 hours
In-depth study of basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. The student will determine point of origin and the cause of the fire; identify motives of fire setters; and describe the elements of the combustion process. (SCANS 2, 4, 5, 6, 7, 9) Prerequisite: None.

FIRT 1305 Public Education Programs [formerly FIRE 2307]
(43.0202) (2-2) 3 hours
Preparation of firefighters and fire officers to develop public fire safety awareness. Emphasis on implementation of fire and public safety programs in an effort to reduce the loss of life. The student will identify safety programs for various target groups; and conduct fire and public safety programs within a community. Lab fee required. (SCANS 6, 7, 8, 9) Prerequisite: None.

FIRT 1307 Fire Prevention Codes and Inspections [formerly FIRE 1306]
(43.0201) (3-0) 3 hours
Study of local building and fire prevention codes. Emphasis on fire prevention inspections, practices, and procedures. Students will identify and apply provisions of local building and fire prevention codes to fire prevention inspections and describe fire inspection practices and procedures including hazard recognition and correction. (SCANS 7, 8, 9, 10) Prerequisite: None.

FIRT 1309 Fire Administration I [formerly FIRE 2303]
(43.0202) (3-0) 3 hours
Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. The student will explain the intra-organizational cooperation needed for a fire department to function properly; describe fundamental management and organizational principles; and demonstrate leadership and management skills at the company grade level. (SCANS 6, 7, 9, 10) Prerequisite: None.

FIRT 1311 Fire Service Hydraulics [formerly FIRE 1204]
(43.0201) (2-2) 3 hours
Study of water distribution systems and fire stream development as related to fire protection and suppression. Students will describe basic principles of hydraulics including principles of fluids and fluid dynamics; identify and describe components of a water distribution system; determine fire flows for various types of occupancies; recognize and explain various types of fire pumps and pump operational procedures; calculate pump pressure for various types of hose lays; and describe various types of nozzles and the application of each type. Lab fee required. (SCANS 3, 6, 8) Prerequisite: None.

FIRT 1315 Hazardous Material I [formerly FIRE 1505]
(43.0201) (3-0) 3 hours
Study of the chemical characteristics and behavior of various materials. Topics include storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Students will recognize hazardous materials in various shipping and storage containers; explain chemical characteristics and how they may react under certain conditions; and describe the most effective methods of hazard mitigation. (SCANS 6, 8, 9) Prerequisite: None.

FIRT 1319 Firefighter Health and Safety [formerly FIRE 1401]
(43.0201) (3-0) 3 hours
Study of firefighter occupational safety and health in emergency and non-emergency situations. Students will identify and describe components of a firefighter safety and health program; explain safety practices and procedures related to emergency and non-emergency operations; and outline the components of a firefighter wellness program. (SCANS 6, 7, 8, 9, 11) Prerequisite: None.

FIRT 1329 Building Codes and Construction [formerly FIRE 2302]

(43.0201) (3-0) 3 hours

Examination of building codes and requirements, construction types, and building materials. Topics include walls, floorings, foundations, and various roof types and the associated dangers of each. The student will explain model building codes; discuss National Fire Protection Association 101 (NFPA 101); and compare and contrast construction types. (SCANS 6, 8, 9) Prerequisite: None.

FIRT 1331 Firefighting Strategies and Tactics I [formerly FIRE 1503]

(43.0202) (2-4) 3 hours

Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Students will recognize potential scenarios in various fire situations; select and implement strategies and tactics; and describe components of an incident management system. Lab fee required. (SCANS 4, 7, 8, 9) Prerequisite: None.

FIRT 1353 Legal Aspects of Fire Protection

(43.0202) (3-0) 3 hours

Study of the rights, duties, liability concerns, and responsibilities of public fire protection agencies while performing assigned duties. Students will summarize basic criminal and civil law; discuss relevant tort law; and describe state and federal legal systems. (SCANS 6, 7, 9, 10, 11) Prerequisite: None.

FIRT 2331 Firefighting Strategies and Tactics II [formerly FIRE 2315]

(43.0202) (3-0) 3 hours

Continuation of Firefighting Strategies and Tactics I. Emphasis on use of incident command in large scale command problems and other specialized fire problems. Students will explain and implement incident command; diagram a fire attack on a high rise building; and develop strategies to mitigate various specific emergencies. (SCANS 6, 7, 8, 9) Prerequisite: FIRT 1331 or consent of department chair.

FIRT 2380 Cooperative Education – Fire Protection and Safety Technology/ Technician [formerly FIRE 2377]

(43.0201) (1-20) 3 hours

An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

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	**59**
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
COSC 1415 Introduction to Computer Science	4
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
MATH 1314 College Algebra or higher level math	3
MATH 1316 Plane Trigonometry or higher level math	3
MATH 1348 Analytic Geometry or higher level math	3
MATH 2413 Calculus I or higher level math	4
PHED (any two one-hour activity courses)	2
PHYS 1401 College Physics I or PHYS 2425 Engineering Physics I	4
PHYS 1402 College Physics II or PHYS 2426 Engineering Physics II	4
SPCH 1315 Public Speaking	3
Major Requirements	**12**
BIOL 2470 Marine Ecology	4
GEOL 1403 Physical Geology	4
GEOL 1404 Historical Geology	4
Total Semester Hours	**71**

GEOLOGY COURSES

GEOL 1403 Physical Geology

(40.0601.5103) (3-3) 4 hours

This course is a study of the physical and chemical aspects of the Earth's interior and exterior 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

(40.0601.5103) (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.

ANTHROPOLOGY COURSES

ANTH 2301 Physical Anthropology
(45.0301.5125) (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
(45.0201.5325) (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.

GEOGRAPHY COURSES

GEOG 1301 Principles of Geography I
(45.0701.5125) (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
(45.0701.5125) (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 (See Air Conditioning)

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) as a Licensed Chemical Dependency Counselor (LCDC) in order to accept employment relating to victims of alcohol and drug abuse. The core curriculum in human services can lead to an associate in applied science degree or a certificate of completion in human services. The human services program provides the student with the required 270 clock hours of chemical dependency coursework as well as the supervised 300-hour practicum.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Alcohol and Drug Abuse

	Semester Hrs
General Education Requirements	**30**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
GOVT 2301 U.S. and Texas Government	3
GOVT 2302 American National Government	3
HIST 1301 U.S. History to 1877	3
HPRS 1106 Medical Terminology (BIOL 1170)	1
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
SPCH 1311 Introduction to Speech Communication or SPCH 1321 Business and Professional Speech	3
Major Requirements	**33**
DAAC 1304 Pharmacology of Addiction (HUMS 1302)	3
DAAC 1307 Addicted Family Intervention	3
DAAC 1309 Assessment Skill of Alcohol and Other Drug Addictions	3
DAAC 1311 Counseling Theories (HUMS 1308)	3
DAAC 1314 Dynamics of Group Counseling	3
DAAC 1317 Basic Counseling Skills (HUMS 1306)	3
DAAC 1319 Introduction to Alcohol and Other Drug Addictions (HUMS 1301)	3
DAAC 1341 Counseling Alcohol and Other Drug Addictions (HUMS 2310)	3
DAAC 1343 Current Issues (HUMS 2401)	3
DAAC 2366 Practicum – Alcohol/Drug Abuse Counseling (HUMS 2350)	3
*Approved Elective	3
Total Semester Hours	**63**

*See department chair for list of approved electives.

Students who wish only to qualify to take the TCADA licensure or TAAP certification examination may do so by successfully completing 21 semester hours of human services courses including DAAC 2366 Practicum.

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

Students entering the program must meet with the department chair prior to enrollment. Students will need to provide proof of immunization against tetanus/diphtheria, rubella (German measles), rubeola (measles), mumps, and hepatitis B prior to entering the program.

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 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 Certificate of Completion

Level I certificates are TASP-waived.

Level I – Alcohol and Drug Abuse

	Semester Hrs
General Education Requirement	**9**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	3
SPCH 1311 Introduction to Speech Communication or SPCH 1321 Business and Professional Speech	3

Major Requirements **21**
- DAAC 1304 Pharmacology of Addiction (HUMS 1302) 3
- DAAC 1311 Counseling Theories (HUMS 1308) ... 3
- DAAC 1317 Basic Counseling Skills (HUMS 1306) .. 3
- DAAC 1319 Introduction to Alcohol and Other Drug Addictions (HUMS 1301) 3
- DAAC 1341 Counseling Alcohol and Other Drug Addictions (HUMS 2310) 3
- DAAC 2366 Practicum – Alcohol/Drug Abuse Counseling (HUMS 2350) 3
- DAAC (any 3-Hour DAAC Course) 3

Total Semester Hours **30**

HUMAN SERVICES COURSES

DAAC 1304 Pharmacology of Addiction
[formerly HUMS 1302]
(51.1501) (3-0) 3 hours
Psychological, physiological, and sociological effects of mood altering substances and behaviors and their implications for the addiction process are discussed. Emphasis is placed on pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. (SCANS 5, 6, 10, 11) Prerequisite: None.

DAAC 1307 Addicted Family Intervention
(51.1501) (3-0) 3 hours
An introduction to the family as a dynamic system focusing on the effects of addiction pertaining to family roles, rules, and behavior patterns. Discusses the impact of mood altering substances and behaviors and therapeutic alternatives as they relate to the family from a multicultural and transgenerational perspective. (SCANS 5, 6, 9, 11) Prerequisite: DAAC 1317, DAAC 1311 or department chair approval.

DAAC 1309 Assessment Skill of Alcohol and Other Drug Addictions
(51.1501) (3-0) 3 hours
Examines procedures by which a counselor/program identifies and evaluates an individual's strengths, weaknesses, problems, and needs which will be used in the development of a treatment plan. Prepares the student to appropriately explain assessment results and individual rights to clients. (SCANS 5, 6, 9, 10) Prerequisite: DAAC 1304, DAAC 1311, DAAC 1317 and DAAC 1319 or department chair approval.

DAAC 1311 Counseling Theories
[formerly HUMS 1308]
(51.1501) (3-0) 3 hours
An introduction to major theories of various treatment modalities including reality therapy, psycho-dynamic, grief therapy, client-centered therapy, rational-emotive therapy, cognitive-behavioral approaches such as life skills training, behavior modification, and the introduction to experiential therapies as they relate to detoxification, residential, outpatient, and extended treatment. (SCANS 5, 6, 9, 10, 11) Prerequisite: None.

DAAC 1314 Dynamics of Group Counseling
(51.1501) (3-0) 3 hours
An introduction to the patterns and dynamics of group interactions across the life span. Focus includes group therapy, structure, types, stages, development, leadership, therapeutic factors, the impact of groups on the individual, group growth, and behavior. Effective group facilitation skills and techniques used to address special population issues and needs are covered. Effective case management and record keeping are addressed. (SCANS 5, 6, 9, 11) Prerequisite: DAAC 1311, DAAC 1317 or department chair approval.

DAAC 1317 Basic Counseling Skills
[formerly HUMS 1306]
(51.1501) (3-0) 3 hours
This course is designed to facilitate development of the basic communication skills necessary to develop an effective helping relationship with clients. Includes the utilization of special skills to assist individuals, families, or groups in achieving objectives through exploration of a problem and its ramifications; examination of attitudes and feelings; consideration of alternative solutions; and decision making. (SCANS 5, 6, 9, 11) Prerequisite: None.

DAAC 1319 Introduction to Alcohol and Other Drug Addictions
[formerly HUMS 1301]
(51.1501) (3-0) 3 hours
Causes and consequences of addiction as they relate to the individual, family, community, and society are discussed. Response alternatives regarding intervention, treatment, education, and prevention are reviewed. Competencies and requirements for licensure in Texas are explained. Addiction issues related to diverse populations are presented. (SCANS 5, 7, 9, 10) Prerequisite: None.

DAAC 1341 Counseling Alcohol and Other Drug Addictions
[formerly HUMS 2310]
(51.1501) (3-0) 3 hours
This course will focus on special skills and techniques in the application of counseling skills for the Alcohol and Other Drug (AOD) client. Design and utilization of treatment planning using a treatment team approach will be introduced. Confidentiality and ethical issues will be reviewed and practiced. (SCANS 5, 7, 9, 10) Prerequisite: None.

DAAC 1343 Current Issues
[formerly HUMS 2401]
(51.1501) (3-0) 3 hours
A study of issues that impact addiction counseling. Special populations, dual diagnosis, ethics, gambling, and infectious diseases associated with addiction counseling will be investigated. (SCANS 4, 5, 7, 9, 10, 11) Prerequisites: DAAC 1304, DAAC 1311, DAAC 1317 and DAAC 1319 or department chair approval.

DAAC 1391 Special Topics in Alcohol/Drug Abuse Counseling: Clinical Supervision
(51.1501) (3-0) 3 hours
Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Assists students in defining and conceptualizing models and types of supervision. Areas of discussion include supervisory relationships and counselor development, supervision, methods and techniques covering the roles, focus, group supervision, multicultural issues, and the methods of assessing and evaluating supervision. (SCANS 5, 6, 9, 11) Prerequisites: DAAC 1311 and DAAC 1317.

DAAC 2366 Practicum – Alcohol/Drug Abuse Counseling
[formerly HUMS 2350]
(51.1501) (0-21) 3 hours
An advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be a paid or unpaid learning experience. (SCANS 4, 5, 6, 9, 10, 11) Prerequisites: 18 semester hours of DAAC courses including DAAC 1311, DAAC 1317, and a "B" average in all DAAC coursework and department chair approval.

Irrigation (see Air Conditioning)

Latin (see English and Foreign Languages)

Law Enforcement/ Criminal Justice

Faculty: Jim McKown, chair; Sidney Lyle, Brad S. Miller, Geoffrey Schwende.

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 with either a criminal justice or corrections option. 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degrees

Law Enforcement/Criminal Justice Option

Semester Hrs

General Education Requirements 17
- COSC 1301 Introduction to Computer Systems 3
- 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 1332 Structures of College Mathematics I or higher level math 3
- PHED (any two one-hour activity courses) 2
- SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech 3

Related Requirements 4
- POFI 2401 Word Processing (OFST 1404) or POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422) 4

Major Requirements 37
- CJCR 1400 LE – Basic Jail Course (CRIJ 2520) 4
- CJLE 1303 Basic Telecommunication Certification (CRIJ 1379) 3
- CJLE 1333 Traffic Law and Investigation (CRIJ 1322) 3
- CJLE 1394 Special Topics: Traffic Management and Supervision (CRIJ 2331) 3
- CJSA 1312 Crime in America (CRIJ 1307*) 3
- CJSA 1313 Court Systems and Practices (CRIJ 1306*) . 3
- CJSA 1322 Introduction to Criminal Justice (CRIJ 1301*) 3
- CJSA 1327 Fundamentals of Criminal Law (CRIJ 1310*) 3
- CJSA 1342 Criminal Investigation (CRIJ 2314*) 3
- CJSA 1347 Police Organization and Administration (CRIJ 1318) 3
- CJSA 1359 Police System and Practices (CRIJ 2328*) .. 3
- CJSA 2300 Legal Aspects of Law Enforcement (CRIJ 2323*) 3

PLUS any nine hours selected from the following pool of courses 9
- CJCR 1304 LE – Probation and Parole (CRIJ 1321) ... 3
- CJCR 1307 LE – Correctional Systems and Practices (CRIJ 2313*) 3
- CJCR 1391 Special Topics: Corrections/ Correctional Administration (CRIJ 2330) 3
- CJLE 1211 Basic Firearms (CRIJ 2471) 2
- CJSA 1308 Criminalistics I (CRIJ 2370) 3
- CJSA 1317 Juvenile Justice System (CRIJ 1313*) 3
- CJSA 1325 Criminology (CRIJ 2578) 3

Total Semester Hours 67

Students must complete 67 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.

*Texas accrediting agencies have designated 10 law enforcement courses as academic 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 1313, CRIJ 2301, CRIJ 2313, 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.

Law Enforcement/Corrections Option

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 1332 Structures of College Mathematics I or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business & Professional Speech	3
Related Requirements	**4**
POFI 2401 Word Processing (OFST 1404) or POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422)	4
Major Requirements	**37**
CJCR 1304 LE – Probation and Parole (CRIJ 1321)	3
CJCR 1307 LE – Correctional Systems and Practices (CRIJ 2313*)	3
CJCR 1391 Special Topics: Corrections/ Correctional Administration (CRIJ 2330)	3
CJCR 1400 LE – Basic Jail Course (CRIJ 2520)	4
CJLE 1303 Basic Telecommunication Certification (CRIJ 1379)	3
CJSA 1312 Crime in America (CRIJ 1307*)	3
CJSA 1313 Court Systems and Practices (CRIJ 1306*)	3
CJSA 1317 Juvenile Justice System (CRIJ 1313*)	3
CJSA 1322 Introduction to Criminal Justice (CRIJ 1301*)	3
CJSA 1327 Fundamentals of Criminal Law (CRIJ 1310*)	3
CJSA 1342 Criminal Investigation (CRIJ 2314*)	3
CJSA 2300 Legal Aspects of Law Enforcement (CRIJ 2323*)	3
PLUS any nine hours selected from the following pool of courses	**9**
CJLE 1211 Basic Firearms (CRIJ 2471)	2
CJLE 1333 Traffic Law and Investigation (CRIJ 1322)	3
CJLE 1394 Special Topics: Traffic Management and Supervision (CRIJ 2331)	3
CJSA 1308 Criminalistics I (CRIJ 2370)	3
CJSA 1325 Criminology (CRIJ 2578)	3
CJSA 1347 Police Organization and Administration (CRIJ 1318)	3
CJSA 1359 Police System and Practices (CRIJ 2328*)	3
Total Semester Hours	**67**

Students must complete 67 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.

*Texas accrediting agencies have designated 10 law enforcement courses as academic 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 1313, CRIJ 2301, CRIJ 2313, 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.

Certificates of Completion in Law Enforcement

Level I certificates are TASP-waived.

Level I – Emergency Telecommunications/Dispatcher

	Semester Hrs
General Education Requirements	**13**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
POFI 2401 Word Processing (OFST 1404) or POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skill Building (OFST 1422)	4
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**22**
CJCR 1400 LE – Basic Jail Course (CRIJ 2520)	4
CJLE 1303 Basic Telecommunication Certification (CRIJ 1379)	3
CJSA 1312 Crime in America (CRIJ 1307*)	3
CJSA 1313 Court Systems and Practices (CRIJ 1306*)	3
CJSA 1322 Introduction to Criminal Justice (CRIJ 1301*)	3
CJSA 1327 Fundamentals of Criminal Law (CRIJ 1310*)	3
CJSA 1342 Criminal Investigation (CRIJ 2314*)	3
Total Semester Hours	**35**

Level I – County Correctional Officer

	Semester Hrs
General Education Requirements	**7**
COSC 1301 Introduction to Computer Systems	3
POFI 2401 Word Processing (OFST 1404) or POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skill Building (OFST 1422)	4
Major Requirements	**10**
CJCR 1400 LE – Basic Jail Course (CRIJ 2520)	4
CJSA 1312 Crime in America (CRIJ 1307*)	3
CJSA 1322 Introduction to Criminal Justice (CRIJ 1301*)	3
Total Semester Hours	**17**

*Texas accrediting agencies have designated 10 law enforcement courses as academic 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 1313, CRIJ 2301, CRIJ 2313, 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.

Level I – Basic Law Enforcement Academy Certificate

The basic academy 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 four courses (20 semester hours) in the law enforcement curriculum. College credit for the six 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 an application packet.

	Semester Hrs
Major Requirements	**20**
CJLE 1506 Basic Peace Officer I	5
CJLE 1512 Basic Peace Officer II	5
CJLE 1518 Basic Peace Officer III	5
CJLE 1524 Basic Peace Officer IV	5
Related Requirements	**2**
PHED 1106 Jogging and Walking	1
PHED 1111 Weight Training	1
Total Semester Hours	**22**

LAW ENFORCEMENT/ CRIMINAL JUSTICE COURSES

CJCR 1304 LE – Probation and Parole
[formerly CRIJ 1321]
(43.0102) (3-0) 3 hours
A survey of the structure, organization, and operation of probation and parole services. Emphasis on applicable state statutes and administrative guidelines. The student will describe the professional qualifications for employment as a probation or parole practitioner; demonstrate skills in management and treatment practices; and create and develop community relations strategies. (SCANS 2, 3, 7, 9, 11) Prerequisite: None.

*CRIJ 2313 Correctional Systems and Practices
(43.0104.5424)

CJCR 1307 LE – Correctional Systems and Practices
(43.0102) (3-0) 3 hours
Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. The student will identify the organization and role of corrections; distinguish operations and procedure within correctional programs; and appraise rehabilitation, alternatives to institutionalization, and future issues. (SCANS 2, 4, 6, 7, 8, 9, 10, 11) Prerequisite: None.

CJCR 1391 Special Topics in Corrections/Correctional Administration: Corrections/Correctional Administration
[formerly CRIJ 2330]
(43.0102) (3-0) 3 hours
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. The course also involves an in-depth look at community programs for adult and juvenile offenders and treatment modalities in various correctional settings. Student will discuss and debate future trends associated with community-based correction in America. (SCANS 6, 7, 9, 10, 11) Prerequisite: None.

CJCR 1400 LE – Basic Jail Course
[formerly CRIJ 2520]
(43.0102) (4-1) 4 hours
Provides instruction in human relations, observation, evaluation of prisoners, booking procedures, classification, mug shots, fingerprinting, strip searches, meals, medical services, visitation, inmates rights and privileges, detention areas, key, knife and tool control, disturbances, riots, fire procedures, and release procedures. Taught in accordance with the current TCLEOSE instructor guides provided by the Commission for course #1005. The student will comply with licensure requirements of the state of Texas; demonstrate skills in the care, custody and control of jail inmates; and demonstrate an understanding of legal issues, gender and cultural diversity, and stress management techniques in a local correctional environment. Completion of course qualifies student to sit for licensure examination. (SCANS 2, 7, 9, 11) Prerequisite: None.

*CRIJ 2301 Community Resources in Corrections
(43.0104.5324)
CJCR 2324 LE – Community Resources in Corrections
(43.0102) (3-0) 3 hours
An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment. The student will identify alternatives to incarceration; compare and contrast the strengths and weaknesses inherent in contemporary models of intermediate sanctions; and appraise future trends in community treatment options. (SCANS 1, 2, 9, 10, 11) Corequisites: CJCR 2325 and CJSA 1318.

CJCR 2325 LE – Legal Aspects of Corrections
[formerly CRIJ 1373]
(43.0102) (3-0) 3 hours
A study of operation, management and legal issues affecting corrections. Analysis of constitutional issues involving rights of the convicted, as well as civil liability of correctional agencies and staff. The student will assess current case, statutory and constitutional law applicable to the correctional setting including clients, inmates and staff; explain and describe the various types and classifications of correctional populations; and explain consequences of civil and criminal liabilities. (SCANS 1, 2, 7, 9, 10, 11) Corequisites: CJSA 1318 and CJCR 2324.

CJLE 1211 Basic Firearms
[formerly CRIJ 2471]
(43.0107) (1-2) 2 hours
Instruction in firearm safety, cleaning and care techniques, proper shooting principles, and proficiency with a handgun and shotgun. Student will learn basic repairs and adjustments to the weapon and will have to conduct live fire on the range. Lab fee required. Lab fee does not include ammunition. (SCANS 6, 7, 8, 11) Prerequisite: Be a declared CJLE major, be enrolled in other CJLE courses or consent of department chair.

CJLE 1303 Basic Telecommunication Certification
[formerly CRIJ 1379]
(43.0107) (3-0) 3 hours
Topics include overview of law enforcement functions, history of public safety communications, federal laws regulating public safety communications, radio communication systems, radio operations, fire and EMS dispatch considerations, telephone operations, law enforcement information systems, communication records, logs and documentation, legal issues, emergency management, police emergency situations, 9-1-1/computer aided dispatch, media relations, stress management, and crises intervention. Required course for law enforcement telecommunication personnel prior to completion of 12 months of service. The student will demonstrate radio operations, identify legal issues regarding telecommunications, process radio logs and documentation, prioritize emergency calls for management, and identify crisis intervention techniques. (SCANS 1, 2, 5, 6, 8, 9, 10) Prerequisite: None.

CJLE 1333 Traffic Law and Investigation
[formerly CRIJ 1322]
(43.0107) (3-0) 3 hours
Instruction in the basic principles of traffic control, traffic law enforcement, court procedures, and traffic law. Emphasis on the need for a professional approach in dealing with traffic law violators and the police role in accident investigation and traffic supervision. The student will identify background and underlying principles of the traffic law enforcement effort; describe the legal requirements which govern and control the making and enforcement of criminal laws and traffic laws in particular; explain the procedures to maximize the individual officer's personal safety during a stop, particularly in a criminal situation; explain the factors which influence the officer and violator during their face

to face contact; explain the importance of meeting the objectives of a traffic program, i.e. reduction of traffic fatalities and prosecution of traffic offenses; and identify the various enforcement activities that lead to achieving an effective traffic program. (SCANS 1, 3, 6, 9, 11) Prerequisite: None.

CJLE 1394 Special Topics in Law Enforcement/Police Science: Traffic Management and Supervision
[formerly CRIJ 2331]
(43.0107) (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: CJLE 1333.

CJLE 1506 Basic Peace Officer I
(43.0107) (3-6) 5 hours
Introduction to fitness and wellness, history of policing, professionalism and ethics, United States Constitution and Bill of Rights, criminal justice system, Texas Penal Code, Texas Code of Criminal Procedure, civil process, and stress management. This course taken in conjunction with Basic Peace Officer II, III and IV will satisfy the TCLEOSE-approved Basic Peace Officer Training Academy. (SCANS 6, 7, 9, 10, 11) Prerequisite: None. Corequisite: CJLE 1512, CJLE 1518, CJLE 1524.

CJLE 1512 Basic Peace Officer II
(43.0107) (3-6) 5 hours
Basic preparation for a new peace officer. Covers field note taking, report writing, "use of force" law and concepts, problem solving, multiculturalism, professional policing approaches, patrol procedures, victims of crime, family violence, MHMR, crowd management, HAZMAT, and criminal investigation. This course taken in conjunction with Basic Peace Officer I, III and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. (SCANS 6, 7, 9, 10, 11) Prerequisite: None. Corequisite: CJLE 1506, CJLE 1518, CJLE 1524.

CJLE 1518 Basic Peace Officer III
(43.0107) (3-6) 5 hours
Basic preparation for a new peace officer. Covers laws pertaining to controlled substances, crowd management, personal property, and crime scene investigation. This course taken in conjunction with Basic Peace Officer I, II and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. (SCANS 6, 7, 9, 10, 11) Prerequisite: None. Corequisite: CJLE 1506, CJLE 1512, CJLE 1524.

CJLE 1524 Basic Peace Officer IV
(43.0107) (3-6) 5 hours
Basic preparation for a new peace officer. Covers laws directly related to police field work. Topics include Texas Transportation Code, intoxicated driver, Texas Penal code, elements of crimes, Texas Family Code, Texas Alcoholic Beverage Code, and civil liability. Requires the demonstration and practice of the skills of a police officer including patrol, driving, traffic stop skills, use of force, mechanics of arrest, firearm safety, and emergency medical care. Also includes study of the techniques and procedures used by police officers on patrol. Includes controlled substance identification, handling abnormal persons, traffic collision investigation, note taking and report writing, vehicle operation, traffic direction, crowd control, and jail operations. This course taken in conjunction with Basic Peace Officer I, II and III will satisfy the TCLEOSE-approved Basic Peace Officer Training Academy. (SCANS 6, 7, 9, 10, 11) Prerequisite: None. Corequisite: CJLE 1506, CJLE 1512, CJLE 1518.

CJSA 1308 Criminalistics I
[formerly CRIJ 2370]
(43.0104) (3-0) 3 hours
Introduction to the field of criminalistics. Topics include the application of scientific and technical methods in the investigation of crime including location, identification, and handling of evidence for scientific analysis. The student will describe the care required in identifying, collecting and preserving evidence for scientific examination and explain the significance of field and laboratory finding. Lab fee required. (SCANS 2, 4, 6, 7, 8, 9) Prerequisite: CJSA 1342.

*CRIJ 1307 Crime in America
(45.0401.5225)
CJSA 1312 Crime in America
[formerly CRIJ 1307]
(43.0104) (3-0) 3 hours
American crime problems in historical perspective; social and public policy factors

affecting crime; impact and crime trends; social characteristics of specific crimes; prevention of crime. The student will explain the psychological, social, and economic impact of crime in society and identify characteristics of major crimes, the impact on society and the prevention thereof. (SCANS 1, 2, 3, 4, 6, 7, 9, 11) Prerequisite: None.

*CRIJ 1306 Court Systems and Practices
(22.0101.5424)
CJSA 1313 Court Systems and Practices [formerly CRIJ 1306]
(43.0104) (3-0) 3 hours
The judiciary in the criminal justice system; structure of the American Court system; prosecution; right to counsel; pre-trial release; grand juries; adjudication process; types and rules of evidence, sentencing. The student will describe the American judiciary system and its structure; identify the roles of judicial officers; identify the trial processes from pretrial to sentencing; and interpret the role of evidence. (SCANS 1, 2, 5, 6, 7, 9, 11) Prerequisite: CJSA 1322.

*CRIJ 1313 Juvenile Justice System
(43.0104.5224)
CJSA 1317 Juvenile Justice System
(43.0104) (3-0) 3 hours
A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. The student will describe the juvenile law and the role of juvenile courts; explain the roles of police and correctional agencies concerning delinquency; and review and contract the theories of delinquent conduct. (SCANS 1, 2, 6, 9) Prerequisite: None.

CJSA 1318 Court Management [formerly CRIJ 1371]
(43.0104) (3-0) 3 hours
Exploration of operational issues in the administration of American courts. Topics include responsibilities of court personnel, records management, and organizational management topics. The student will identify operational issues in the administration of American courts including duties and responsibilities of court personnel; explain contemporary record management systems; and outline code of ethics, management styles, budgeting procedures and critical thinking. (SCANS 1, 2, 4, 6, 7, 9, 11) Corequisites: CJCR 2324 and CJCR 2325.

*CRIJ 1301 Introduction to Criminal Justice *(43.0104.5124)*
CJSA 1322 Introduction to Criminal Justice [formerly CRIJ 1301]
(43.0104) (3-0) 3 hours
History and philosophy of criminal justice and ethical considerations; crime defined; its nature and impact; overview of criminal justice system; law enforcement; court system; prosecution and defense; trial process; corrections. The student will describe and explain the history, philosophy and ethical considerations of criminal justice; define the nature and impact of crime on society and how it is integrated into the criminal justice system; distinguish between the civil and criminal court systems; and interpret the relationship between the components of the criminal justice system. (SCANS 1, 2, 5, 6, 9, 11) Prerequisite: None.

CJSA 1325 Criminology [formerly CRIJ 2578]
(43.0104) (3-0) 3 hours
Current theories and empirical research pertaining to crime and criminal behavior and its causes, methods of prevention, systems of punishment, and rehabilitation. The student will identify and explain the various theories of causation of criminal behavior; identify and appraise the avenue of prevention; outline the various research methods/methodology used in criminological research; and identify the categories and sources of criminological data utilized in interpreting crime trends. (SCANS 1, 2, 6, 7, 9, 10, 11) Prerequisite: CJSA 1322.

*CRIJ 1310 Fundamentals of Criminal Law
(22.0101.5324)
CJSA 1327 Fundamentals of Criminal Law [formerly CRIJ 1310]
(43.0104) (3-0) 3 hours
A study of the nature of criminal law; philosophical and historical development; major definitions and concepts; classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal responsibilities. The student will explain the historical and philosophical development of the nature of criminal law; describe definitions and concepts of criminal law and the classifications of crimes and penalties using Texas statutes as illustrations; list the elements of crimes using the Texas statutes as an illustration; and discuss criminal responsibilities as they apply to the criminal statutes. (SCANS 1, 4, 6, 7, 9, 11) Prerequisites: CJSA 1322.

*CRIJ 2314 Criminal Investigation
(43.0104.5524)
CJSA 1342 Criminal Investigation [formerly CRIJ 2314]
(43.0104) (3-0) 3 hours
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. The student will define the goals and objectives of criminal investigation; demonstrate ability to conduct proper crime scene investigations; illustrate the use of forensic science for various statutory offenses; and organize the criminal case including field notes, reports, crime scene activities and mandatory documentation of statutory warning. (SCANS 2, 3, 6, 9, 10, 11) Prerequisite: CJSA 1322.

CJSA 1347 Police Organization and Administration [formerly CRIJ 1318]
(43.0104) (3-0) 3 hours
Study of the principles of organizational structure and administration. Topics include theories of management, motivation, and leadership. Focus on a quality approach toward police community interaction. The student will identify principles of organization, administration, management, motivation and leadership; and describe the quality approach to community relations. (SCANS 1, 2, 6, 7, 9, 11) Prerequisite: CJSA 1322.

*CRIJ 2328 Police Systems and Practices
(43.0104.5724)
CJSA 1359 Police Systems and Practices [formerly CRIJ 2328]
(43.0104) (3-0) 3 hours
The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. The student will explain the application of ethics, discretion, and sensitivity to the police profession and describe the organization of law enforcement systems and its relationship to current and future issues. (SCANS 2, 4, 6, 7, 8, 9, 10, 11) Prerequisites: CJSA 1312 and CJSA 1322.

*CRIJ 2323 Legal Aspects of Law Enforcement
(43.0104.5624)
CJSA 2300 Legal Aspects of Law Enforcement [formerly CRIJ 2323]
(43.0104) (3-0) 3 hours
Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability. The student will define police authority and explain the responsibilities and constitutional restraints as enumerated in the Texas Constitution, United States Constitution, and Bill of Rights. The student will outline the law of arrest and search and seizure developed through court decisions and describe the criminal and civil liability that result from improper acts and/or the failure to act. (SCANS 1, 2, 6, 7, 9, 10) Prerequisite: CJSA 1322,

*Texas accrediting agencies have designated 10 law enforcement courses as academic 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 1313, CRIJ 2301, CRIJ 2313, 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.

Legal Assistant

Faculty: Nancy Stewart, chair; Carol Kirk.

The legal assistant curriculum was developed to qualify men and women for positions as assistants or aides to the legal profession and to upgrade the qualifications of legal support personnel. Upon completion of this curriculum, the legal assistant graduate will qualify to work under the supervision of a lawyer and may perform such duties as case screening, investigation and evaluation, detail work pertaining to probate matters, income tax returns, searching public records and court files, office management, accounting, library service, preparation of legal memoranda, servicing and filing of legal documents and preparing legal forms.

There is no unique curriculum for students planning to pursue a career in law. Generally, a liberal arts education is preferred. To insure that the pre-law student enrolls in the proper courses, the student must consult with the pre-law advisor at the accepting four-year college prior to registration each semester. The associate of applied science degree requirements listed under Degree Requirements (refer to index) will serve as a basic curriculum guide. The student is encouraged to take elective course work from the legal assistant program as part of a pre-law degree. Again, seek assurance from the accepting four-year pre-law advisor at the senior college that course work from the legal assistant program will transfer.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Legal Assistant

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 1324 Mathematical Analysis for Business I or higher level math	3
PHED (any two one-hour activity course)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**38**
LGLA 1303 Legal Research (LEGL 2302)	3
LGLA 1305 Legal Writing (LEGL 1301)	3
LGLA 1313 Introduction to Paralegal Studies (LEGL 1302)	3
LGLA 1323 Employment Law	3
LGLA 1346 Civil Litigation I (LEGL 1305)	3
LGLA 1347 Civil Litigation II (LEGL 2316)	3
LGLA 1353 Will, Trusts and Probate Administration (LEGL 2311)	3
LGLA 1355 Family Law (LEGL 1304)	3
LGLA 2239 Certified Legal Assistant Review (LEGL 2360)	2
LGLA 2303 Torts and Personal Injury Law (LEGL 2312)	3
LGLA 2313 Criminal Law and Procedure (LEGL 2355)	3
LGLA 2333 Advanced Legal Document Preparation (LEGL 2301)	3
LGLA 2366 Practicum	3
Related Requirements	**17**
POFI 2401 Word Processing (OFST 1404)	4
POFL 1305 Legal Terminology (OFST 1324)	3
POFL 1459 Legal Transcription (OFST 2415)	4
POFT 1302 Business Communications I (OFST 1402)	3
POFT 2303 Speed and Accuracy Building	3
Total Semester Hours	**72**

Course of Study for Certificate of Completion

Level I certificates are TASP-waived.

Level I – Legal Assistant

Major Requirements	**26**
LGLA 1303 Legal Research (LEGL 2302)	3
LGLA 1305 Legal Writing (LEGL 1301)	3
LGLA 1313 Introduction to Paralegal Studies (LEGL 1302)	3
POFI 2401 Word Processing (OFST 1404)	4
POFL 1305 Legal Terminology (OFST 1324)	3
POFL 1459 Legal Transcription (OFST 2415)	4
POFT 1302 Business Communications I (OFST 1402)	3
POFT 2303 Speed and Accuracy Building	3
Total Semester Hours	**26**

A total of 26 semester hours and a minimum grade point average of 2.0 are required for a level I certificate.

Level II – Advanced Legal Assistant

The 26 semester hours specified in level I certificate – legal assistant plus the following courses are required:

General Education Requirements **3**
- ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing 3

Major Requirements **21**
- LGLA 1346 Civil Litigation I (LEGL 1305) 3
- LGLA 1347 Civil Litigation II (LEGL 2316) 3
- LGLA 1353 Wills, Trusts and Probate Administration (LEGL 2311) 3
- LGLA 1355 Family Law (LEGL 1304) 3
- LGLA 2303 Torts and Personal Injury Law (LEGL 2312) 3
- LGLA 2333 Advanced Legal Document Preparation (LEGL 2301) 3
- LGLA 2366 Practicum 3

Total Semester Hours **50**

National Association of Legal Assistants (NALA) — Upon completion of the associate degree or certificate program, students may become eligible to take the NALA Certified Legal Assistant Examination (CLA). Full-time students and/or those taking legal assistant courses may qualify for student membership in the national organization.

LEGAL ASSISTANT COURSES

LGLA 1303 Legal Research [formerly LEGL 2302]
(22.0103) (3-0) 3 hours
This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, computer assisted legal research, briefs and legal memoranda. (SCANS 4, 6, 7) Prerequisite: None.

LGLA 1305 Legal Writing [formerly LEGL 1301]
(22.0103) (3-0) 3 hours
This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms and legal writing styles. (SCANS 1, 6) Prerequisite: None.

LGLA 1313 Introduction to Paralegal Studies [formerly LEGL 1302]
(22.0103) (3-0) 3 hours
This course provides an overview of the paralegal profession including ethical obligations, regulation, professional trends and issues, and the paralegal's role in assisting the delivery of legal services. (SCANS 5, 6, 9, 10, 11) Prerequisite: None.

LGLA 1323 Employment Law
(22.0103) (3-0) 3 hours
This course presents fundamental concepts of, and the paralegal's role in, employment and labor law. Topics include contracts of employment, governmental regulations, discrimination issues, and worker's compensation. (SCANS 1, 2, 4, 7, 10) Prerequisite: None.

LGLA 1346 Civil Litigation I [formerly LEGL 1305]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation I together with Civil Litigation II covers litigation from the pretrial stage to the post trial phase. (SCANS 4, 6, 9, 10, 11) Prerequisite: None.

LGLA 1347 Civil Litigation II [formerly LEGL 2316]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation II together with Civil Litigation I covers litigation from the pretrial stage to the post trial stage. (SCANS 2, 7) Prerequisite: LGLA 1346.

LGLA 1353 Wills, Trusts and Probate Administration [formerly LEGL 2311]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts of the law of wills, trusts and probate administration with emphasis on the paralegal's role. (SCANS 2, 6, 7) Prerequisite: None.

LGLA 1355 Family Law [formerly LEGL 1304]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property and the parent-child relationship. (SCANS 6, 7, 9) Prerequisite: None.

LGLA 2239 Certified Legal Assistant Review
[formerly LEGL 2360]
(22.0103) (2-0) 2 hours
This course provides a review of the mandatory and optional topics covered in the Certified Legal Assistant Examination administered by the National Association of Legal Assistants.

LGLA 2301 Environmental Law
[formerly LEGL 2350]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts of environmental law with emphasis on the paralegal's role. Topics include terminology, creation of environmental law, and the application of statutes and government regulations to specific fact situations. (SCANS 1, 2, 4, 7, 10) Prerequisite: None.

LGLA 2303 Torts and Personal Injury Law
[formerly LEGL 2312]
(22.0103) (3-0) 3 hours
This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence and strict liability. (SCANS 2, 6, 7) Prerequisite: None.

LGLA 2313 Criminal Law and Procedure
[formerly LEGL 2355]
(22.0103) (3-0) 3 hours
This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. (SCANS 1, 4, 6, 7, 9, 11) Prerequisite: Consent of department chair.

LGLA 2333 Advanced Legal Document Preparation
[formerly LEGL 2301]
(22.0103) (3-0) 3 hours
Preparation of legal documents based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigation and business organization. (SCANS 2) Prerequisite: LGLA 1313 (may be taken concurrently).

LGLA 2366 Practicum – Paralegal/Legal Assistant
(22.0103) (0-25) 3 hours
An intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

Machining – Industrial Machinist Technology

(formerly Metal Trades Technologies)

Faculty: James Mosman, chair; Galen Ballard.

The associate in applied science degree in industrial machinist technology 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, mathematics, communications, layout and blueprint reading so as to provide students with sufficient knowledge for entry employment in the trade.

While a certificate of technology with an emphasis in machine 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Industrial Machinist Technology

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 1332 Structures of College Mathematics I or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Technical Core	**19**
DFTG 1405 Technical Drafting I (DRAF 1401) or DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Major Requirements	**29**
INMT 1441 Computer Integrated Manufacturing (MACH 2404/RBTC 2447)	4
INMT 2334 NC/CNC Programming (MACH 2405/RBTC 2335)	3
MCHN 1320 Precision Tools and Measurement	3
MCHN 1413 Basic Milling Operations (MACH 1403)	4
MCHN 1441 Basic Machine Shop II (MACH 1402)	4
MCHN 2381 Cooperative Education – Machinist/Machine Technologist (MACH 2377)	3
MCHN 2433 Advanced Lathe Operations (MACH 2401) or MCHN 1416 Machine Tool Repair	4
MCHN 2437 Advanced Milling Operations (MACH 2402) or MCHN 1416 Machine Tool Repair	4
Total Semester Hours	**65**

Certificates of Technology in Industrial Machinist Technology

Certificates of technologies are available in the following job-specific fields. See the department chair for course requirements and Permian Basin job opportunities.

Level I certificates are TASP-waived.

Level I – Computerized Numerical Control Programmer

	Semester Hrs
COSC 1301 Introduction to Computer Systems	3
DFTG 1405 Technical Drafting (DRAF 1401) or DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
INMT 1441 Computer Integrated Manufacturing (MACH 2404/RBTC 2447)	4
INMT 2334 NC/CNC Programming (MACH 2405/RBTC 2335)	3
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
Total Semester Hours	**18**

Level I – Milling Machine Operator

	Semester Hrs
MCHN 1413 Basic Milling Operations (MACH 1403)	4
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
MCHN 1441 Basic Machine Shop II (MACH 1402)	4
MCHN 2437 Advanced Milling Operations (MACH 2402) or MCHN 1416 Machine Tool Repair	4
Total Semester Hours	**16**

Level I – Engine Lathe Operator

	Semester Hrs
COSC 1301 Introduction to Computer Systems	3
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
MCHN 1441 Basic Machine Shop II (MACH 1402)	4
MCHN 2433 Advanced Lathe Operations (MACH 2401) or MCHN 1416 Machine Tool Repair	4
Total Semester Hours	**15**

Level II – Machinist Option

	Semester Hrs
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
DFTG 1405 Technical Drafting (DRAF 1401) or DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
INMT 1441 Computer Integrated Manufacturing (MACH 2404/RBTC 2447)	4
INMT 2334 NC/CNC Programming (MACH 2405/RBTC 2335)	3
MATH 1314 College Algebra or higher level math	3
MCHN 1320 Precision Tools and Measurement	3
MCHN 1416 Machine Tool Repair or MCHN 2433 Advanced Lathe Operations (MACH 2401)	4
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
MCHN 1441 Basic Machine Shop II (MACH 1402)	4
MCHN 2381 Cooperative Education – Machinist/Machine Technologist (MACH 2377)	3
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**42**

Level II – Machine Shop Foreman Option

	Semester Hrs
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
DFTG 1405 Technical Drafting (DRAF 1401) or DFTG 1409 Basic Computer-Aided Drafting (DRAF 2408)	4
INMT 1441 Computer Integrated Manufacturing (MACH 2404/RBTC 2447)	4
INMT 2334 NC/CNC Programming (MACH 2405/RBTC 2335)	3
MATH 1314 College Algebra or higher level math	3
MCHN 1320 Precision Tools and Measurement	3
MCHN 1413 Basic Milling Operations (MACH 1403)	4
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
MCHN 1441 Basic Machine Shop II (MACH 1402)	4
MCHN 2381 Cooperative Education – Machinist/Machine Technologist (MACH 2377)	3
MCHN 2433 Advanced Lathe Operations (MACH 2401) or MCHN 1416 Machine Tool Repair	4
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Total Semester Hours	**50**

MACHINE TECHNOLOGY COURSES

INMT 1441 Computer Integrated Manufacturing
[formerly MACH 2404/RBTC 2447]

(15.0603) (2-6) 4 hours

A study of the principles and application of computer integrated manufacturing. Employs all aspects of a system including but not limited to integration of material handling, manufacturing, and computer hardware and programming. The student will develop an understanding of computer integrated manufacturing; and employ material handling, process and/or manufacturing equipment as a system. The student will integrate computer software and equipment in a computer integrated manufacturing system and network a computer integrated manufacturing system. Student may work with a lab partner to complete required projects. Special tasks assigned to meet specific needs to satisfy quality expectations. Lab

fee required. (SCANS 1, 3, 5, 6, 8, 9) Prerequisite: MCHN 2433 or consent of department chair.

INMT 2334 NC/CNC Programming
[formerly MACH 2405/RBTC 2335]
(15.0603) (2-3) 3 hours
A study of the principles and concepts of numerical control through computer applications, specifically in the area of programming for the control of machine tools in CIM. The student will identify the basic types of numerical-controlled machines; demonstrate an understanding of the fundamental steps of planning for the use of numerical control; describe axes relationships and tape readout characteristics; write an exercise in specific programming for an NC/CNC machine; and machine a model of a program he/she has written. Competencies emphasize setup operation, organization of graphs and troubleshooting. Student may work with a lab partner to complete required projects. Special tasks assigned to meet specific needs to satisfy quality expectations. Lab fee required. (SCANS 1, 3, 5, 6, 8, 9) Prerequisite: INMT 1441 or consent of department chair.

MCHN 1320 Precision Tools and Measurement
(48.0501) (2-4) 3 hours
An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurement while using standard measuring tools. The student will describe common methods of measurement conversion; determine the degree of precision measurement required; identify various types of precision instruments; interpret and confirm blueprints requirements; convert English numbers to metric numbers and metric to English; compute total tolerances between mating parts; calibrate various types of precision measuring instruments to a standard; and select and use precision measurement tools. Lab fee required. (SCANS 1, 2, 6, 8) Prerequisite: None.

MCHN 1401 Sheet Metal I
[formerly HVAC 1405]
(48.0506) (3-3) 4 hours
An introduction to the materials, tools and techniques used in the sheet metal industry. Review of trade math problems involving measurement of lines, area, volume, weight and geometric figures. Introduction of types and uses of hand, layout and cutting tools along with bending and forming machines. Practice of material types and properties along with the principles of layout and metal forming. The student will identify common sheet metal and hand tools and machines; identify and select common fasteners; match materials and their properties; select materials for proper applications; and list layout procedures. The student will calculate area, volume and weight of geometric figures; use hand and layout tools; bending and forming machines, fasteners, parallel and radial line development, and triangulation in developing patterns; and cut, bend, form and join sheet metal fittings. Lab fee required. (SCANS 1, 2, 3, 8, 10) Prerequisite: None.

MCHN 1405 Metals and Heat Treatment
[formerly MACH 2403]
(48.0501) (2-3) 4 hours
Designed for students going into the workforce as CNC Operators, manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. The student will identify chemical, mechanical, and physical properties of materials; determine the hardness and strength of ferrous and nonferrous metals; use heat treat procedures to change the properties of the metal. 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. Lab fee required. (SCANS 1, 2, 6, 8) Prerequisite: None.

MCHN 1413 Basic Milling Operations
[formerly MACH 1403]
(48.0501) (2-6) 4 hours
An introduction to the common types of milling machines, basic parts, nomenclature, basic operations and procedures, machine operations, safety; machine mathematics; blueprint reading; and theory. This is a follow-up course to MCHN 1441. The student will describe milling parts and functions; use formulas to calculate speeds and feeds; identify types of milling machines; describe the difference between climb and conventional milling; calculate speeds and feeds for milling machines; set up milling machines; and operate milling machines. Students will use a variety of equipment such as milling machines, lathes and universal grinder. Calculations of material usage and advanced machine finishes will be the students' responsibility to maintain during the completion of required projects. Students also will learn to work with customers to satisfy their expectations and promote confidence in work

performance and to apply advanced machine practices to the students' performance. Lab fee required. (SCANS 1, 3, 4, 5, 8, 9, 10) Prerequisite or corequisite: MCHN 1441 or consent of department chair.

MCHN 1416 Machine Tool Repair

(48.0507) (2-6) 4 hours

Basic repair of machines tools, disassembly, parts fabrication, and assembly of machine types, including related math, blueprint reading and safety. The student will identify parts and functions of various machine tools; define gearing and torque, read and interpret technical manuals, disassemble and reassemble machine parts, perform toleranced assembly proper place and proper fit, clean all parts before and after assembly, and test machine tool for proper working condition. This is the capstone course for the Machinist Option Level II Certificate. Lab fee required. (SCANS 1, 4, 5, 6, 8, 9) Prerequisite: MCHN 1413 and MCHN 1441 or consent of department chair.

MCHN 1438 Machining I - Basic Machine Shop I

[formerly MACH 1401]

(48.0501) (2-6) 4 hours

An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools in included. Emphasis is placed on shop safety, housekeeping, and preventive maintenance. The student will identify machine parts and their functions; select layout tools and techniques; define machine shop terminology; perform basic machine setups; calculate common shop formulas; perform semi-precision and precision layout; execute grinding techniques; demonstrate basic machine operations; apply proper measuring tools; select and acquire materials, interpret simple blueprints and apply appropriate machine shop technology to complete the assigned tasks and describe complex systems to co-workers and supervisors. Students will learn problem-solving techniques and be responsible for producing quality work. Students will maintain and assist in repair of machines and perform daily maintenance, and are responsible for time management and performance. Requires grinding and sharpening single-point cutting tools for lathe and drill press projects. Lab fee required. (SCANS 1, 3, 4, 7, 8, 9, 10, 11) Prerequisite: None.

MCHN 1441 Basic Machine Shop II

[formerly MACH 1402]

(48.0501) (2-6) 4 hours

A continuation of Basic Machine Shop I (MCHN 1438). The student will identify machine parts and their functions; select layout tools and techniques; define machine shop terminology; perform basic machine setups; calculate common shop formulas; perform semi-precision layout; execute grinding techniques; demonstrate basic machine operations; and apply proper measuring tools. Students will learn to understand and interpret more complex blueprints, and approach practical problems using precision measuring instruments. Advanced math skills will be stressed for speeds and feeds calculations. Students will select and 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. Lab fee required. (SCANS 1, 3, 4, 8, 9, 10) Prerequisite or corequisite: MCHN 1438 or consent of department chair.

MCHN 2381 Cooperative Education – Machinist/Machine Technologist

[formerly MACH 2377]

(48.0501) (1-20) 3 hours

An advanced course with the lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. As outlined in the learning plan, the student will master the theory, concept and skills involving the tools, materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environmental and legal systems associated with the particular occupation and the business/industry; demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable technical language of the occupation and the business or industry. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

MCHN 2433 Advanced Lathe Operations
[formerly MACH 2401]
(48.0501) (2-6) 4 hours
An advanced study of the lathe operations. The identification and/or use of special cutting tools and support tooling, such as form tools, carbide inserts, taper attachments, follower, and steady rest. Close tolerance machining required. The student will identify and apply special lathe tooling; interpret advanced operation formulas; list machine and work setup procedures; list and explain machine operation procedures; calculate speeds and feeds; calculate machine movement; perform advanced setups utilizing support tooling; and perform advanced machining operations to specifications. Requires more complex projects and higher performance standards. This is the capstone course for the Engine Lathe Operator Option Level I Certificate. Lab fee required. (SCANS 1, 4, 5, 8, 9) Prerequisite or corequisite: MCHN 1413 or consent of department chair.

MCHN 2437 Advanced Milling Operations
[formerly MACH 2402]
(48.0501) (2-6) 4 hours
An advanced study of milling machine operations. Identification and/or use of milling cutters and support tooling including end mills, slab mills, face mills, involute cutters, rotary tables, and indexing heads. A review of related math and machine theory. This is a follow-up course to MCHN 2433. The student will identify specialty cutters; interpret advanced operations formulas; calculate speeds and feeds; calculate machine coordinates; perform set up of advanced milling procedures; and perform advanced milling operations. The student will demonstrate proficiency in task interpretation and ability to communicate problem-solving techniques to customers and employers. Competencies stress quality of finished products. This is the capstone course for the Milling Machine Operator Option Level I Certificate. Lab fee required. (SCANS 1, 4, 5, 6, 8, 9) Prerequisite or corequisite: MCHN 2433 or consent of department chair.

Management

Faculty: J.D. Roberts, chair; A. Sue Jones, Connie Nichols.

The mission of the management program is to serve the needs of the for-profit and not-for-profit business and industry communities by providing supervisory skills training for current and future employees. Our purpose is to teach students to recognize resources and train them to use those resources effectively and efficiently through class participation, group projects and situational simulations.

Students can earn an associate in applied science degree in management or can opt for one of three certificates of technology including general management, small business and industrial supervision.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Management

	Semester Hrs
General Education Requirements	**23**
ACCT 1370 Introduction to College Accounting	3
COSC 1301 Introduction to Computer Systems or ITSC 1401 Introduction to Computers (BCIS 1401)	3
ECON 2301 Principles of Economics I (Macro) or ECON 2302 Principles of Economics II (Micro)	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1324 Mathematical Analysis for Business I or any other college-level mathematics	3
PHED (any two one-hour activity courses)	2
SPCH 1321 Business & Professional Speech	3
Major Requirements	**27**
BMGT 1301 Supervision (MGMT 1301)	3
BMGT 1303 Principles of Management (MGMT 1302)	3
BMGT 1305 Communications in Management	3
BMGT 2303 Problem Solving and Decision Making	3
BMGT 2309 Leadership (MGMT 2302)	3
BMGT 2311 Management of Change	3
BMGT 2382 Cooperative Education – Business Administration and Management, General (MGMT 2377)	3
HRPO 1311 Human Relations (MGMT 2304)	3
MRKG 1311 Principles of Marketing (MGMT 1321)	3
***Approved management electives**	**15**
Total Semester Hours	**65**

*See department chair for list of approved electives.

Certificates of Technology in Management

Level I certificates are TASP-waived.

Level I – General Management Option

	Semester Hrs
BMGT 1301 Supervision (MGMT 1301)	3
BMGT 1303 Principles of Management (MGMT 1302)	3
BMGT 1305 Communication in Management	3
BMGT 2303 Problem Solving and Decision Making	3
BMGT 2382 Cooperative Education – Business Administration and Management, General (MGMT 2377)	3
COSC 1301 Introduction to Computer Systems or ITSC 1401 Introduction to Computers (BCIS 1401)	3
HRPO 1311 Human Relations (MGMT 2304)	3
*Approved management elective	3
Total Semester Hours	**24**

Level I – Small Business Option

	Semester Hrs
ACCT 1370 Introduction to College Accounting	3
BMGT 1301 Supervision (MGMT 1301)	3
BMGT 1305 Communications in Management	3
BMGT 2382 Cooperative Education – Business Administration and Management, General (MGMT 2377)	3
BUSG 1315 Small Business Operations (MGMT 2332)	3
BUSG 2309 Small Business Management (MGMT 2331)	3
COSC 1301 Introduction to Computer Systems or ITSC 1401 Intro to Computers (BCIS 1401)	3
HRPO 1311 Human Relations (MGMT 2304)	3
MRKG 1311 Principles of Marketing (MGMT 1321)	3
*Approved management elective	3
Total semester hours	**30**

*See department chair for list of approved electives.

Level I – Leadership Option

	Semester Hrs
BMGT 1305 Communication in Management	3
BMGT 2303 Problem Solving and Decision Making	3
BMGT 2309 Leadership (MGMT 2302)	3
BMGT 2311 Management of Change	3
BMGT 2341 Strategic Management	3
BMGT 2382 Cooperative Education – Business Administration and Management, General (MGMT 2377)	3
HRPO 1311 Human Relations (MGMT 2304)	3
HRPO 1393 Special Topics in Organizational Behavior – Ethics in the Workplace	3
Total Semester Hours	**24**

Level I – Industrial Supervision Option

	Semester Hours
BMGT 1301 Supervision (MGMT 1301)	3
BMGT 1303 Principles of Management (MGMT 1302)	3
BMGT 1305 Communications in Management	3
BMGT 1331 Production and Operation Management (MGMT 1361)	3
BMGT 2303 Problem Solving and Decision Making	3
BMGT 2382 Cooperative Education – Business Administration and Management, General (MGMT 2377)	3
COSC 1301 Introduction to Computer Systems or ITSC 1401 Intro to Computers (BCIS 1401)	3
HRPO 1311 Human Relations (MGMT 2304)	3
OSHT 1313 Accident Prevention, Inspection and Investigation (OSHA 1305)	3
*Approved management elective	3
Total semester hours	**30**

*See department chair for list of approved electives.

Level III – Management Advanced Skills Certificate

May only be awarded along with or following completion of associate or higher-level degree.

	Semester Hrs
ENGL 2311 Technical and Report Writing	3
ITSC 1305 Introduction to PC Operating Systems (BCIS 1302)	3
*Approved management elective (advanced)	3
Total Semester Hours	**9**

*See department chair for list of approved electives.

MANAGEMENT COURSES

BMGT 1191, 1291 or 1391 Special Topics in Business Administration, General

(52.0201) (1-0, 2-0 or 3-0) 1, 2 or 3 hours

Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Learning outcomes/objectives are determined by local occupational need and business and industry trends. (SCANS 5, 6, 11) Prerequisite: None.

BMGT 1301 Supervision
[formerly MGMT 1301]

(52.0201) (3-0) 3 hours

A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation and human skills are examined. The student will explain the role, characteristics and skills of a supervisor and the principles of planning, leading, controlling, staffing and organizing at the supervisory level. The student will identify and discuss the human skills necessary for supervision; explain motivational techniques and give examples of how they can be utilized by a supervisor; and structure a working environment which will provide a variety of ways for employees to be motivated. Lab fee required. (SCANS 4, 5, 6, 7, 11) Prerequisite: None.

BMGT 1302 Principles of Retailing
[formerly MGMT 1331]

(08.0705) (3-0) 3 hours

Introduction to the retailing environment and its relationship to consumer demographics, trends and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. The student will identify consumer demographics, trends and traditional/nontraditional retailing markets; describe retailing techniques and steps in the selling process; and list the factors that influence price setting, site location, store design, legislation, competition, the merchandise mix and the economy. Lab fee required. (SCANS 3, 6, 8, 9, 10) Prerequisite: None.

BMGT 1303 Principles of Management
[formerly MGMT 1302]

(52.0201) (3-0) 3 hours

Concepts, terminology, principles, theory and issues that are the substance of the practice of management. The student will explain the various theories and processes of management including its functions; identify roles of leadership in business; and recognize elements of the communication process and the guidelines for organizational design. The student will interpret interpersonal roles related to work groups and

demonstrate a knowledge of the basic language of management. Lab fee required. (SCANS 4, 5, 10, 11) Prerequisite: None.

BMGT 1305 Communications in Management

(52.0201) (3-0) 3 hours

Basic theory and processes of communication skills necessary for the management of an organization's workforce. The student will explain the communication process; identify communication channels and their relationship to semantics and perception; compare and contrast the relationship of communication and management; and demonstrate competencies in verbal and written communication skills through oral and written presentations. Lab fee required. (SCANS 2, 5, 6, 11) Prerequisite: None.

BMGT 1307 High Performance Work Teams

(52.0201) (3-0) 3 hours

Basic principles of building and sustaining teams in organizations including team dynamics and process improvement. The student will analyze the process of team building; integrate interpersonal skills, group dynamics and leadership in the workings of a team; and participate in a team to apply tools and techniques of the problem solving process. Lab fee required. (SCANS 5, 6, 7, 9, 10) Prerequisite: None.

BMGT 1313 Principles of Purchasing

(52.0202) (3-0) 3 hours

The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, negotiation techniques and ethical issues. The student will describe the purchasing function as it relates to other departments within the company; identify the basic concepts used in purchasing decisions; and explain the relationships of materials management and inventory control to the purchasing process. Lab fee required. (SCANS 4, 5, 9, 10, 11) Prerequisite: None.

BMGT 1331 Production and Operations Management [formerly MGMT 1361]

(52.0205) (3-0) 3 hours

Fundamentals of the various techniques used in the practice of production management to include location, design and resource allocation. The student will identify important factors of plant location and design, resource allocation, and equipment selection and utilization; and demonstrate the ability to use planning, scheduling, inventory management and quality control techniques. Lab fee required. (SCANS 4, 5, 6, 7, 9) Prerequisite: None.

BMGT 2303 Problem Solving and Decision Making

(52.0201) (3-0) 3 hours

Decision making and problem solving processes in organizations, utilizing logical and creative problem solving techniques. Application of theory is provided by experiential activities such as small group discussions, case studies and the use of other managerial decision aids. The student will identify individual, group and organizational decision making processes; solve managerial problems using logical and creative problem solving techniques; and use managerial decision aids. Lab fee required. (SCANS 6, 7, 9, 11) Prerequisite: None.

BMGT 2309 Leadership [formerly MGMT 2302]

(52.0201) (3-0) 3 hours

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to inspire and influence. The student will determine individual leadership styles as related to self and others; distinguish differences between leadership and management; explain the effects of leadership style on organizational environment and its result on followers' motivation; and apply principles of leadership to organizational group dynamics. Lab fee required. (SCANS 5, 6, 7, 9, 11) Prerequisite: None.

BMGT 2311 Management of Change

(52.0201) (3-0) 3 hours

Knowledge, skills and tools that enable a leader/organization to facilitate change in a pro-active participative style. The student will explain the roles of change agent and champion in the process of change within the organization; show the progression of change from introduction to completion, examining barriers to successful implementation; and demonstrate ability to analyze internal and external environments as well as stakeholder issues in showing need for change. Lab fee required. (SCANS 5, 6, 7, 9, 11) Prerequisite: None.

BMGT 2331 Total Quality Management

(52.0201) (3-0) 3 hours

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment. The student will define the role of quality in production and service systems; explain concepts related to quality costs; list and define the quality improvement process using analysis; and participate in problem solving experiences through creative team development. Lab fee required. (SCANS 5, 6, 7, 9) Prerequisite: None.

BMGT 2341 Strategic Management
(52.0201) (3-0) 3 hours
Strategic management process involving analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. The student will explain the processes involved in management strategy development and develop a strategic management plan for an organization. Lab fee required. (SCANS 4, 6, 7, 9) Prerequisite: Six hours of business management courses or consent of department chair.

BMGT 2382 Cooperative Education – Business Administration and Management, General
[formerly MGMT 2377]
(52.0201) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

BUSG 1315 Small Business Operations
[formerly MGMT 2332]
(52.0701) (3-0) 3 hours
A course in the unique aspects of managing a small business. Topics address management functions including how managers plan, exercise leadership, organize and control the operations. The student will discuss the unique aspects of managing a small business; explain the importance of developing employees to enhance business profits; describe the employment process; explain the elements of total quality management programs; compare purchasing procedures and inventory control in two small businesses; and compare computerized operations of two small businesses. Lab fee required. (SCANS 2, 6, 7, 9) Prerequisite: None.

BUSG 1393 Special Topics in Finance, General: Dollars and Sense and Personal Finance
(52.0801) (3-0) 3 hours
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course places emphasis on eight key elements of financial planning; obtaining, planning, saving, borrowing, spending, managing risk, investing, and retirement and estate planning. Lab fee required. (SCANS 4, 6, 8, 9) Prerequisite: None.

BUSG 2307 Legal and Social Environment of Business
(52.0101) (3-0) 3 hours
The role of law in business and society including government regulations of business, legal reasoning, sources of law, social policy, legal institutions, antitrust, security regulations, consumer protection, environmental laws, worker health and safety, employment discrimination, and other laws affecting business. Lab fee required. (SCANS 5, 6, 7, 9) Prerequisite: None.

BUSG 2309 Small Business Management
[formerly MGMT 2331]
(52.0701) (3-0) 3 hours
A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies and legal issues. The student will describe important issues about small business; identify essential management skills required of a successful entrepreneur; and prepare a business plan. Lab fee required. (SCANS 6, 7, 9, 10) Prerequisite: None.

HRPO 1191 Special Topics in Human Resources Management
(52.1001) (1-0) 1 hour
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. (SCANS 2, 5, 6, 11) Prerequisite: None.

HRPO 1311 Human Relations
[formerly MGMT 2304]
(52.1003) (3-0) 3 hours
Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. The student will evaluate human relations including diversity, attitudes, self-esteem and interpersonal skills to promote

career success; identify and evaluate the causes and effects of stress in the workplace; develop individual and group communication, listening and decision making skills; and analyze how theories of motivation and human behavior impact strategies of change management. Lab fee required. (SCANS 5, 7, 9, 10, 11) Prerequisite: None.

HRPO 1393 Special Topics in Organizational Behavior Studies: Ethics in the Workplace

(52.1003) (3-0) 3 hours

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Students will analyze and discuss various views of the concept of right and wrong and the impact of global and cross-cultural issues related to ethics in the workplace. Lab fee required. (SCANS 5, 6, 9, 10, 11) Prerequisite: None.

HRPO 2301 Human Resources Management

(52.1001) (3-0) 3 hours

Behavioral and legal approach to the management of human resources in organizations. The student will describe and explain the development of human resources management; evaluate current methods of job analysis, recruitment, selection, training/development, performance appraisal, promotion, and separation; discuss management's ethical, socially responsible, and legally required actions; assess methods of compensation and benefits planning; and examine the role of strategic human resource planning in support of organizational mission and objectives. Lab fee required. (SCANS 4, 5, 6, 7, 11) Prerequisite: None.

HRPO 2307 Organizational Behavior

(52.1003) (3-0) 3 hours

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts and the integration of interdisciplinary concepts from the behavioral sciences. The student will explain organizational theory as it relates to management practices, employee relations, and structure of the organization to fit its environment and operation; analyze leadership styles and determine their effectiveness in employee situations; discuss experience in managing and resolving organizational problems; describe the impact of corporate culture and atmosphere on employee behavior; and analyze and discuss team dynamics, team building strategies and cultural diversity. Lab fee required. (SCANS 5, 6, 7, 9, 11) Prerequisite: None.

IMED 2309 Internet Commerce

(10.0101) (3-0) 3 hours

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include database technology, creating web sites in order to collect information, performing on-line transactions, and generating dynamic content. Students will perform audience analysis; state marketing objectives; analyze design stategies for secure data transfer; write web pages to use real-time processing capabilities; and design a web site that interacts with a database. Lab fee required. (SCANS 4, 6, 8, 9) Prerequisite: None.

INSR 1391 Special Topics in Insurance and Risk Management

(52.0805) (3-0) 3 hours

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Students will learn how to integrate insurance, wills, and trusts as part of an overall financial plan including investment options. Lab fee required. (SCANS 1, 3, 4, 6, 9) Prerequisite: None.

LMGT 1319 Introduction to Business Logistics [formerly MGMT 2365]

(52.0203) (3-0) 3 hours

A systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing and materials handling. The student will explain the terms and how they relate to the overall concept of logistics; explain the legal aspects and regulatory agencies as they relate to logistics management; and demonstrate ability to apply decision-making techniques based on time, materials and space. Lab fee required. (SCANS 4, 5, 6, 7, 9) Prerequisite: None.

MRKG 1311 Principles of Marketing [formerly MGMT 1321]

(52.1401) (3-0) 3 hours

Introduction to basic marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological and global issues; and description and analysis of the importance of marketing research. The student will identify the marketing mix components in relation to market segmentation; explain the economic, psychological, sociological and global factors which influence consumer and organizational decision-making processes; and interpret market research data to forecast industry trends and meet customer demands. Lab fee required. (SCANS 4, 6, 7, 9, 10, 11) Prerequisite: None.

Mass Communication

Faculty: Steve Goff, chair.

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**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	6
Foreign Language or Science (eight hours in same discipline)	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
MATH (college level)	3
PHED (any two one-hour activity courses)	2
Philosophy, Psychology, Sociology, Anthropology or Economics courses	6
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**6**
COMM 1307 Introduction to Mass Communication	3
COMM 1335 Survey of Radio and Television	3
AND any nine hours selected from the following courses	**9**
COMM 1318 Basic Photography I	3
COMM 1336 Television Production I	3
COMM 1337 Television Production II	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 2303 Audio and Radio Production	3
COMM 2311 News Gathering and Writing I	3
COMM 2315 News Gathering and Writing II	3
COMM 2324 Practicum in Electronic Media	3
COMM 2325 Practicum in Electronic Media	3
COMM 2326 Practicum in Electronic Media	3
COMM 2331 Announcing for Radio and Television	3
Total Semester Hours	**64**

Course of Study for Associate in Arts Degree
Mass Communication

	Semester Hrs
General Education Requirements	**49**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric.	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	6
Foreign Language or Science (six to eight hours in same discipline)	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
MATH (college level)	3
PHED (any two one-hour activity courses)	2
Philosophy, Psychology, Sociology, Anthropology or Economics courses	6
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**3**
COMM 1307 Introduction to Mass Communication	3
AND any 12 hours selected from the following courses	**12**
COMM 1131 Publications	1
COMM 1132 Publications	1
COMM 1316 News Photography	3
COMM 1318 Basic Photography I	3
COMM 1319 Basic Photography II	3
COMM 1335 Survey of Radio and Television	3
COMM 1336 Television Production I	3
COMM 2131 Publications	1
COMM 2132 Publications	1
COMM 2303 Audio and Radio Production	3
COMM 2311 News Gathering and Writing I	3
COMM 2315 News Gathering and Writing II	3
COMM 2325 Practicum in Electronic Media	3
COMM 2326 Practicum in Electronic Media	3
Total Semester Hours	**64**

MASS COMMUNICATION COURSES

COMM 1131, 1132, 2131, 2132 Publications

(09.0401.5406) (0-5) 1 hour each

Gives students the opportunity to tailor their Odessa College experience to further their career goals in mass communication. Students will work on the staff of at least one of the official college publications for up to five hours a week under faculty supervision. (SCANS 5, 6, 7, 9) Prerequisites: TASP competency in reading and writing; COMM 1307 or equivalent experience or consent of the instructor.

COMM 1307 Introduction to Mass Communication

(09.0403.5106) (3-0) 3 hours

Surveys basic facets affecting human interaction through mass communication. 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 1316 News Photography

(09.0401.5506)

PHTC 1351 Photojournalism I

(50.0406) (2-4) 3 hours

Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab fee required. (SCANS 2, 5, 6, 8, 9) Prerequisites: COMM 1318 or ARTS 2356.

COMM 1318 Basic Photography I

(50.0605.5126)

ARTS 2356 Photography I

(50.0605.5126) (2-4) 3 hours

Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. The student will assess and select equipment, supplies and techniques to incorporate basic theories of film, exposure, development, filters and printing. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisite: None.

COMM 1319 Basic Photography II

(50.0605.5226)

ARTS 2357 Photography II

(50.0605.5226) (2-4) 3 hours

Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Designed for additional experience in the photographic medium. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisites: COMM 1318 or ARTS 2356 or its equivalent.

COMM 1335 Survey of Radio and Television

(09.0403.5206) (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 I

(10.0104.5206) (1-2) 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. Lab fee required. (SCANS 5, 6, 8, 11) Prerequisites: TASP competency in reading and writing or consent of instructor.

COMM 1337 Television Production II

(10.0104.5206) (1-2) 3 hours

Continuation of the television production sequence. 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. Lab fee required. (SCANS 5, 6, 8, 11) Prerequisites: TASP competency in reading and writing or consent of the instructor.

COMM 2120, 2121, 2122 Practicum in Electronic Media

(09.0701.5306) (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 staff meetings designed to keep students abreast of happenings at the station and in the industry. Lab fee required. (SCANS 5, 8, 9, 10, 11) 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

(09.0701.5306) (2-3) 2 hours

This practicum is designed to allow students to tailor their Odessa College experience to their future career goals in radio or television. Students may choose practicum experience at various local stations or KOCV-FM/TV or produce specific projects. Lab fee required. (SCANS 5, 8, 9, 10, 11) 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 2303 Audio/Radio Production

(10.0104.5106) (1-3) 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. Lab fee required. (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 2311 News Gathering and Writing I

(09.0401.5706) (3-0) 3 hours

Introduces the basic fundamentals of news writing for all mass media. Students will be instructed in the methods and techniques used for gathering, processing and delivering news in a professional manner. (SCANS 2, 7, 9) Prerequisites: COMM 1307, basic typing skills and competency in diction and grammar required.

COMM 2315 News Gathering and Writing II

(09.0401.5806) (3-0) 3 hours

Continuation of the news gathering and writing sequence. Specialized news story forms will be highlighted with an emphasis on advanced reporting techniques. Students will write stories for broadcast during the news programs on KOCV-FM. (SCANS 7, 9) Prerequisites: COMM 2311 or consent of the instructor.

COMM 2324, 2325, 2326 Practicum in Electronic Media

(09.0701.5306) (2-4) 3 hours each

This practicum is designed to allow students to tailor their Odessa College experience to their future career goals in mass media. Students may choose practicum experience at various local or campus media organizations or produce specific projects. Lab fee required. (SCANS 5, 8, 9, 10, 11) 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 2331 Announcing for Radio and Television

(09.0701.5406) (1-2) 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. Lab fee required. (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.

Mathematics

Faculty: Dr. Charles Sweatt, chair; George Brewer, Jim Camp, Theresa Evans, Dr. James Fields, Nikki Handley, Dr. Glynna Strait, Dr. Margaret Street.

The mathematics department 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
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
Lab Science	12
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking	3
Major Requirements	**22**
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
*MATH 2412 Pre-calculus Math	4
MATH 2413 Calculus I	4
MATH 2414 Calculus II	4
MATH 2415 Calculus III	4
Related Requirements	**4**
COSC 1415 Introduction to Computer Science	4
Total Semester Hours	**67**

*Students not prepared for MATH 2412 Pre-calculus Math should enroll in MATH 1314 College Algebra or a lower-level math course before enrolling in MATH 2412. Preregistration testing is available for placement aid for students planning to take MATH 0371, MATH 0372, MATH 0375, MATH 1314 or MATH 1332.

MATHEMATICS COURSES

MATH 0170 Math Study Skills

(32.0101.5212) (0-1) 1 hour

A math study skills course designed to enable students to receive assistance in specific mathematics courses taken with a "B or better" contract. Tutorial help, computer-assisted instruction, videotapes and TASP study materials are available to support this course. This course is a corequisite with a college level course taken with a "B or better" contract. MATH 0170 will satisfy TASP liability only if concurrently enrolled in college level mathematics course. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Lab fee required. (SCANS 3, 4, 8, 9) Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0171 Fundamental Math

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0172 Algebra – Graphing and Equations

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0173 Algebra – Operations and Quadratics

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0174 Geometry and Problem Solving

(32.0104.5119) (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. Lab fee required. (SCANS 3, 4, 8, 9) Prerequisite: Completion of MATH 0375 or consent of the instructor.

MATH 0370 Arithmetic

(32.0104.5119) (3-0) 3 hours

A developmental course for students with weak preparation in fundamental mathematics and who are deficient in math, English and/or reading. Presents basic arithmetic operations (whole numbers, fractions, decimals, and signed numbers), percents and proportions, metric and American systems of units, geometric measurements, and statistical graphs. MATH 0370 must be passed with a "C" or better in order to progress to next appropriate course. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: Consent of instructor. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0371 Pre-Algebra

(32.0104.5119) (3-0) 3 hours

A developmental course using whole numbers, decimals, fractions, integers, linear equations, problem solving, geometry formulas, real number properties, polynomials, exponents, radicals, equations, and graphs of lines. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0370 passed with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0372 Introductory Algebra

(32.0104.5119) (3-0) 3 hours

A developmental course that introduces elementary algebra with some arithmetic review. Includes signed numbers and rational numbers with operations through exponentiation; algebraic expressions and their operations; linear equations and inequalities including applications, graphs and systems; and function notation. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0371 passes with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 0375 Intermediate Algebra

(32.0104.5219) (3-0) 3 hours

A developmental course that provides a study of real number operations, linear and quadratic inequalities, exponents and radicals, polynomial and radical equations, and their graphs. The student will learn to select appropriate mathematical techniques and technologies and use skills in information organizing, processing, planning, and problem solving. Credit is not transferable. This course does not satisfy requirements for any degree plan at Odessa College. Placement testing is available. Attendance is mandatory for TASP liable students. Lab fee required. (SCANS 3, 8, 9) Prerequisite: MATH 0372 passed with a "C" or better or satisfactory placement score. Corequisite: 14 hours in the Math Academic Resource Lab.

MATH 1314 College Algebra

(27.0101.5419) (3-0) 3 hours

Includes sets, complex numbers, quadratic and quadratic form equations, inequalities, functions, systems of equations and topics selected from exponential and logrithmic 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

(27.0101.5319) (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

(27.0301.5219) (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

(27.0301.5219) (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

(27.0101.5119) (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 0375 or high school Algebra II or passing score on TASP math section.

MATH 1333 Structures of College Mathematics II

(27.0101.5119) (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

(27.0501.5119) (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

(27.0101.5519) (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 1442 Business Statistics
(27.0501.5119) (3-3) 4 hours
Provides an 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 2318 Linear Algebra
(27.0101.6119) (3-0) 3 hours
Presents a 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 2414.

MATH 2320 Differential Equations
(27.0301.5119) (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. 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 2414.

MATH 2412 Pre-Calculus Math
(27.0101.5819) (4-0) 4 hours
Presents the study of applications of algebra and trigonometry, elementary functions and their graphs including polynomial, rational, exponential, logarithmic, and trigonometric functions, conic sections, rotation of axes, parametric equations and the use of polar, cylindrical and spherical coordinates. 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 describe these meanings to others. (SCANS 3, 8, 9, 11) Prerequisite: MATH 1314 or equivalent.

MATH 2413 Calculus I
(27.0101.5919) (4-0) 4 hours
Presents a 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 or MATH 2412.

MATH 2414 Calculus II
(27.0101.5919) (4-0) 4 hours
Extend topics of MATH 2413 to include differentiation and integration of a wider class of functions, which includes transcendental functions. Also presented are improper integrals and the use of L'Hopital's Rule, sequences, infinite series and vectors in the plane. 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 2413.

MATH 2415 Calculus III
(27.0101.5919) (4-0) 4 hours
Presents the study of vectors and motion in space. Vector valued functions, multivariable functions, partial differentiation and multiple integration of multivariable functions and their application. Also presented are Lagrange multipliers, line integrals, Green's and Stoke's Theorems. 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 2414.

Medical Lab Technology
(see Clinical Laboratory Sciences)

Metal Trades Technologies
(see Machining and/or Welding)

Music

Faculty: Dr. Kathryn Hoppe, chair; Lonnie Clark, Randy Talley, Dr. Charlotte Whitaker.

The Odessa College music department, offering an associate in 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 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	**32**
COSC 1301 Introduction to Computer Systems	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
Foreign Language, Math, or Science	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	3
Major Requirements	**34**
Class Piano, Secondary Piano, or Piano Ensemble (Piano Majors)	4
Freshman Principal Instrument or Voice	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
Sophomore Principal Instrument or Voice	4
Total Semester Hours	**66**

MUSIC ENSEMBLE COURSES

MUSI 1121, 1122, 2121, 2122
Concert Band
(50.0903.5526) (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 1123, 1124, 2123, 2124 Orchestra
(50.0903.5526) (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 1131, 1132, 2131, 2132
Jazz Ensemble
(50.0903.5626) (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
String Ensemble
(50.0903.5626) (0-3) 1 hour each
Performance oriented course for students who can play music of moderate difficulty on a stringed instrument (violin, viola, cello, bass). 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
(50.0903.5626) (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 keyboard 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

(50.0903.5726) (0-6) 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

(50.0903.5826) (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 1301 Music Fundamentals

(50.0904.5526) (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 1306 Music Appreciation

(50.0902.5126) (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 multimedia approach which includes lectures, videos, recordings, and live performances. (SCANS 6, 11) Prerequisite: None.

MUSI 1308, 1309 Introduction to Music Literature

(50.0902.5226) (3-0) 3 hours each

A chronological survey course for music majors, which acquaints students with musical composition from the Middle Ages through the 20th century. Historical aspects, as well as the music itself, are presented. Music history information and listening skills will be acquired through various audiovisual aids, including videotapes, CDs, 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

(50.0904.5126) (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

(50.0904.5226) (3-3) 3 hours each

Presents secondary seventh chords, modulation, chromatic melody and harmony, and small forms through analysis, part-writing, composition, ear-training, sight-singing, rhythmic reading and keyboard applications. Twentieth century melody and harmony and large forms are studied during the second semester. Required for all music majors. (SCANS 6, 11) Prerequisite for MUSI 2311: MUSI 1312. Prerequisite for MUSI 2312: MUSI 2311.

MUSI 1371, 1372 Piano Literature

(50.0902.5226) (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, CDs, CD-ROMs, and live performance. (SCANS 6, 11) Prerequisite: Consent of the instructor.

MUSI 1160 Italian Diction
(50.0908.5326) (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
(50.0908.5326) (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
(50.0908.5326) (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
(50.0904.5426) (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
(50.0904.5426) (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
(50.0904.5426) (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
(50.0904.5426) (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 rhythmic responses, and reading music notation. Lab fee required. (SCANS 1, 11) Prerequisite: None.

MUSI 1181, 1182, 2181, 2182 Class Piano
(50.0907.5126) (1-2) 1 hour each
Courses for music majors designed to develop basic skills related to playing the piano 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 one-half hour lesson on a secondary instrument. Non-music majors may have a one-half hour or one-hour lesson. Five hours of practice per week are required for a one-half hour lesson, and 10 hours for a one-hour lesson. (SCANS 1, 11) Private instruction fee required. Prerequisite: None.

NON-MUSIC MAJOR COURSES

MUAP 1189, 1190, 2189, 2190 Applied Music
(50.0903.5426) (0-1/2) 1 hour each

MUAP 1289, 1290, 2289, 2290 Applied Music
(50.0903.5426) (0-1) 2 hours each

MUSIC MAJOR COURSES

MUAP 1201, 1202 Freshman Violin
(50.0903.5426) (0-1) 2 hours each

MUAP 2201, 2202 Sophomore Violin
(50.0903.5426) (0-1) 2 hours each

MUAP 1205, 1206 Freshman Viola
(50.0903.5426) (0-1) 2 hours each

MUAP 2205, 2206 Sophomore Viola
(50.0903.5426) (0-1) 2 hours each

MUAP 1209, 1210 Freshman Cello
(50.0903.5426) (0-1) 2 hours each

MUAP 2209, 2210 Sophomore Cello
(50.0903.5426) (0-1) 2 hours each

MUAP 1213, 1214 Freshman Double Bass
(50.0903.5426) (0-1) 2 hours each

MUAP 2213, 2214 Sophomore Double Bass
(50.0903.5426) (0-1) 2 hours each

MUAP 1217, 1218 Freshman Flute
(50.0903.5426) (0-1) 2 hours each

MUAP 2217, 2218 Sophomore Flute
(50.0903.5426) (0-1) 2 hours each

MUAP 1221, 1222 Freshman Oboe
(50.0903.5426) (0-1) 2 hours each

MUAP 2221, 2222 Sophomore Oboe
(50.0903.5426) (0-1) 2 hours each

MUAP 1225, 1226 Freshman Bassoon
(50.0903.5426) (0-1) 2 hours each

MUAP 2225, 2226 Sophomore Bassoon
(50.0903.5426) (0-1) 2 hours each

MUAP 1229, 1230 Freshman Clarinet
(50.0903.5426) (0-1) 2 hours each

MUAP 2229, 2230 Sophomore Clarinet
(50.0903.5426) (0-1) 2 hours each

MUAP 1233, 1234 Freshman Saxophone
(50.0903.5426) (0-1) 2 hours each

MUAP 2233, 2234 Sophomore Saxophone
(50.0903.5426) (0-1) 2 hours each

MUAP 1237, 1238 Freshman Cornet or Trumpet
(50.0903.5426) (0-1) 2 hours each

MUAP 2237, 2238 Sophomore Cornet or Trumpet
(50.0903.5426) (0-1) 2 hours each

MUAP 1241, 1242 Freshman French Horn
(50.0903.5426) (0-1) 2 hours each

MUAP 2241, 2242 Sophomore French Horn
(50.0903.5426) (0-1) 2 hours each

MUAP 1245, 1246 Freshman Trombone or Baritone
(50.0903.5426) (0-1) 2 hours each

MUAP 2245, 2246 Sophomore Trombone or Baritone
(50.0903.5426) (0-1) 2 hours each

MUAP 1253, 1254 Freshman Tuba
(50.0903.5426) (0-1) 2 hours each

MUAP 2253, 2254 Sophomore Tuba
(50.0903.5426) (0-1) 2 hours each

MUAP 1257, 1258 Freshman Percussion
(50.0903.5426) (0-1) 2 hours each

MUAP 2257, 2258 Sophomore Percussion
(50.0903.5426) (0-1) 2 hours each

MUAP 1261, 1262 Freshman Classical Guitar
(50.0903.5426) (0-1) 2 hours each

MUAP 2261, 2262 Sophomore Classical Guitar
(50.0903.5426) (0-1) 2 hours each

MUAP 1265, 1266 Freshman Organ
(50.0903.5426) (0-1) 2 hours each

MUAP 2265, 2266 Sophomore Organ
(50.0903.5426) (0-1) 2 hours each

MUAP 1269, 1270 Freshman Piano
(50.0903.5426) (0-1) 2 hours each

MUAP 2269, 2270 Sophomore Piano
(50.0903.5426) (0-1) 2 hours each

MUAP 1281, 1282 Freshman Voice
(50.0903.5426) (0-1) 2 hours each

MUAP 2281, 2282 Sophomore Voice
(50.0903.5426) (0-1) 2 hours each

MUAP 1165, 1166, 2165, 2166 Secondary Organ
(50.0903.5426) (0-1/2) 1 hour each

MUAP 1169, 1170, 2169, 2170 Secondary Piano
(50.0903.5426) (0-1/2) 1 hour each

MUAP 1181, 1182, 2181, 2182 Secondary Voice
(50.0903.5426) (0-1/2) 1 hour each

MUAP 1187, 1188, 2187, 2188 Secondary Instrument
(50.0903.5426) (0-1/2) 1 hour each

Nursing - RN

Faculty – Odessa: Becky Hammack, director; Marylin Boomer, Laura Cralle, Amanda Darling, Dee Ann Decker, Mary Kipple, Eva Mauldin, Gail Meagher, Charlene Reeves, Pat Ritchey, Robbie Rogers, Barbara Stone, Lori Wingate.

The curriculum of the Odessa College nursing programs prepares the student for a variety of experiences in health care, including hospitals, home health care services, mental health agencies and occupational care in industry. Nursing is a caring-oriented human experience requiring a well-educated nurse. Odessa College nursing programs are designed to allow students maximum flexibility to obtain this education. Options available to complete this goal are listed below.

RN – Career Ladder Option:

The RN Associate Degree Program allows the student to qualify as an eligible candidate to take the National Council for Licensure Examination (NCLEX) for registered nurses (RN). The student will receive an associate in applied science degree. The student, after completion of two semesters in the RN program, has the option to take additional summer courses in order to be an eligible candidate for the NCLEX-for vocational nurses (LVN). The student will receive a certificate of completion.

RN – Associate Degree Level – Evening Option:

The RN Evening Option is designed for students to attend nursing classes and clinicals primarily during the evening and/or Saturday hours, with the exception of the psychiatric clinicals, which will be offered during daytime hours. Classes are admitted in the fall of even numbered years. Successful completion qualifies the student as a candidate for application to take the National Council for Licensure Examination for the RN. The vocational option is available during the day to the Evening Option student.

Transition Option for the LVN – Associate Degree Level:

The Transition Option is designed for persons who are already licensed vocational nurses. The transition courses are the initial courses, which serve to validate and enhance nursing skills. This brings the LVN to the level of the generic nursing student entering the second year of the RN Associate Degree Nursing Program. Upon successful completion of these courses, the LVN will receive 14 hours of advanced credit. Successful completion of the second year qualifies the student as a candidate for application to take the National Council for Licensure Examination for the RN.

The associate degree program is accredited by the Board of Nurse Examiners for the State of Texas and the National League for Nursing Accrediting Commission. The vocational programs are accredited by the Board of Vocational Nurse Examiners for the State of Texas. Curriculum plans are approved by the Texas Higher Education Coordinating Board. Information concerning tuition and fees, and length of the program are available from NLNAC, 61 Broadway, New York, NY 10006; 1-800-669-9656.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Admission Requirements for the Career Ladder Option, RN – Evening Option, and the Transition/Validation for the LVN Option:

1. Applications must be submitted by:
   June 1 for fall admission.
   October 1 for spring admission.
2. Persons who have been convicted of a felony or misdemeanor or who have a history of substance abuse must request a declaratory order from the Board of Nurse Examiners for the State of Texas prior to admission. Information and documentation must be submitted to the board prior to application for licensure. Eligibility for licensure will be decided by investigation. Persons who have been convicted of a felony may not qualify as an eligible candidate to take the National Council for Licensure Examination (NCLEX) – Practical Nurse (PN).
3. Prerequisites for Career Ladder Option (Prerequisites for RN – Evening Option are listed under degree plan):
   - BIOL 2401, Anatomy and Physiology I (completed within last five years or permission from director).

- BIOL 2402, Anatomy and Physiology II (completed within last five years or permission from director).
- HPRS 1106, Medical Terminology
- PSYC 2301, Introduction to Psychology
- RNSG 1108, Dosage Calculations

4. College cumulative GPA 2.5 or higher in all courses.
5. Official high school transcript or GED.
6. Passed TASP and/or satisfactory scores on ASSET placement tests.
7. A satisfactory score on the nursing entrance exam.
8. Current CPR certification in Basic Life Support for Professionals (American Heart Association Course C or Red Cross Basic Life Support for the Professional).
9. Proof of health and accident insurance and professional liability coverage.
10. Students wishing to apply for admission or persons seeking additional information should contact the Student Development Center at Odessa College.
11. All courses (nursing and non-nursing) must be passed with a grade of "C" or better.
12. Students are required to achieve a passing score on a comprehensive exit examination in order to graduate and take the National Council Licensure Examination for registered nurses.
13. Any student who fails the exit exam twice will be given an incomplete grade ("I") and will be required to remediate and retest. A third failure of the exit exam will result in retaking the course or dismissal from the program.
14. All students re-enrolling in the nursing program must meet the admission and graduation requirements as stated in the current Odessa College Catalog of Courses.

Although English language proficiency is not required for admission to the nursing options, successful completion of the program necessitates good communication skills in English. There is no discrimination due to age, sex, color, race, cultural or ethnic 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, geriatric nursing experiences and special selected services. All courses in the curriculum are required. A general education course may be required prior to some nursing courses.

Students must complete the outcome competencies for each level with a minimum grade of "C" in nursing courses and general education courses before progressing to the next semester. A grade of "D" or "F" is unacceptable. Students must maintain a cumulative GPA of 2.0 or above in all course work each semester.

Note: Nursing students are required to maintain coverage in health and accident insurance. Professional liability insurance is mandatory.

Nursing students are responsible for their own transportation to clinical facilities. The nursing department 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.

RN – Career Ladder Option

The Career Ladder Nursing Option is designed to allow students maximum flexibility in education. Students have the option of progressing through the two levels of nursing. After completion of the first year of nursing courses, the student has the option of taking summer vocational courses (see courses designated by an asterisk). The completion of the summer option results in a certificate of completion and the qualifications for taking the licensure exam for licensed vocational nurse (LVN). Successful completion of the second year of nursing courses results in an associate in applied science degree and the qualifications to take the licensure exam for registered nurse (RN). All nursing students must have current CPR certification and are governed by policies in the Nursing Student Handbook.

	Semester Hrs
Prerequisites/Bridge Courses	**13**
BIOL 2401 Anatomy and Physiology I	4
BIOL 2402 Anatomy and Physiology II	4
HPRS 1106 Medical Terminology (BIOL 1170)	1
PSYC 2301 Introduction to Psychology	3
RNSG 1108 Dosage Calculations for Nursing	1

FIRST YEAR

Summer Session II

ENGL 1301 Composition and Rhetoric	3
SPCH 1315 Public Speaking	3

First Semester

RNSG 1201 Pharmacology (NURS 1201) 2
RNSG 1215 Health Assessment (NURS 1102) 2
RNSG 1219 Preparation for Basic Nursing Care (NURS 1503/NURS 1504) 2
RNSG 1261 Clinical Nursing I (NURS 1503/ NURS 1504) 2
RNSG 1423 Introduction to Professional Nursing (NURS 1503) 4
PSYC 2314 Life Span Growth & Development 3

Second Semester

COSC 1301 Introduction to Computer Systems ... 3
RNSG 1244 Nursing Skills (NURS 1306/ NURS 1805) 2
RNSG 1462 Clinical Nursing II (NURS 1306/ NURS 1805) 4
RNSG 2504 Care of the Client With Common Health Care Needs (NURS 1805) 5

Summer Sessions I and II

*VNSG 1230 Maternal-Neonatal Nursing (NURS 1821) 2
*VNSG 1413 Applied Nursing Skills II (NURS 1222/NURS 1821) 4
*VNSG 1460 Clinical Practical Nurse (NURS 1821) 4

*Vocational level. (These courses are optional.)

Students who successfully complete the vocational level with a cumulative GPA of 2.0 or better in all course work are eligible to take the state board examination for licensure as a vocational nurse and receive a certificate of completion.

SECOND YEAR

First Semester

BIOL 2420 Microbiology 4
PHED 1100 Lifestyle Assessment & Modification... 1
RNSG 1512 Nursing Care of the Childbearing and Childrearing Family (NURS 2807) 5
RNSG 2361 Clinical Nursing III (NURS 2807) 3

Second Semester

GOVT 2301 U.S. & Texas Government 3
RNSG 2360 Clinical Nursing IV (NURS 2808) 3
RNSG 2514 Care of the Client With Complex Health Care Needs (NURS 2808) 5

Total Hours 72

Students successfully completing the associate-degree level are eligible to take the state board examination for licensure as a registered nurse.

RN Associate Degree Nursing Program – Evening Option

The Odessa College RN Evening Option offers students a sequence of evening and/or Saturday classes leading to an associate in applied science degree and preparation to take 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 program, the student must have completed the prerequisite course requirements designated in the curriculum and be currently certified in CPR. All students are governed by policies in the Nursing Student Handbook. The vocational nursing courses are available to the Evening Option students during the day.

Semester Hrs

Prerequisite/Bridge Courses 33
BIOL 2401 Anatomy and Physiology I 4
BIOL 2402 Anatomy and Physiology II 4
BIOL 2420 Microbiology 4
COSC 1301 Introduction to Computer Systems ... 3
ENGL 1301 Composition and Rhetoric 3
GOVT 2301 U.S. & Texas Government 3
HPRS 1106 Medical Terminology (BIOL 1170) 1
PHED 1100 Lifestyle Assessment and Modification 1
PSYC 2301 Introduction to Psychology 3
PSYC 2314 Life Span Growth and Development . 3
RNSG 1108 Dosage Calculations for Nursing 1
SPCH 1315 Public Speaking 3

FIRST YEAR

First Semester

RNSG 1201 Pharmacology 2
RNSG 1215 Health Assessment (NURS 1102) 2
RNSG 1219 Preparation for Basic Nursing Care (NURS 1503/NURS 1504) 2
RNSG 1261 Clinical Nursing I (NURS 1503/ NURS 1504) 2
RNSG 1423 Introduction to Professional Nursing (NURS 1503) 4

Second Semester

RNSG 1244 Nursing Skills II (NURS 1306/ NURS 1805) 2
RNSG 1462 Clinical Nursing II (NURS 1306/ NURS 1805) 4
RNSG 2504 Care of the Client With Common Health Care Needs (NURS 1805) 5

Summer Session I & II

*VNSG 1230 Maternal-Neonatal Nursing (NURS 1821) 2
*VNSG 1413 Applied Nursing Skills II (NURS 1222/NURS 182) 4
*VNSG 1460 Clinical Practical Nurse (NURS 1821) 4

*Vocational level. (These courses are optional).

Students who successfully complete the vocational level with a cumulative GPA of 2.0 or better in all course work are eligible to take the state board examination for licensure as a vocational nurse and receive a certificate of completion.

SECOND YEAR

First Semester

RNSG 1512 Nursing Care of the Childbearing and Childrearing Family (NURS 2807) 5
RNSG 2361 Clinical Nursing III (NURS 2807) 3

Second Semester

RNSG 2360 Clinical Nursing IV (NURS 2808) 3
RNSG 2514 Care of the Client With Complex Health Care Needs (NURS 2808) 5

Total Hours 72

Transition Option for the LVN – Associate Degree Level

Prior to taking the transition courses, licensed vocational nurses must be licensed to practice nursing in the state of Texas. Upon successful completion of the transition courses, students will follow the curriculum for the upper level of the career ladder program. All nursing students must have current CPR certification and are governed by policies in the Nursing Student Handbook.

Semester Hrs

Prerequisite Courses

BIOL 2401 Anatomy and Physiology I 4
BIOL 2402 Anatomy and Physiology II 4
COSC 1301 Introduction to Computer Systems ... 3
HPRS 1106 Medical Terminology (or consent of instructor) (BIOL 1170) 1
PSYC 2301 Introduction to Psychology 3
PSYC 2314 Life Span Growth and Development 3
RNSG 1108 Dosage Calculations for Nursing (or consent of instructor) 1

FIRST YEAR

First Semester

RNSG 1201 Pharmacology 2
*RNSG 1227 Transition From Vocation to Professional Nursing (NURS 1601) 2
*RNSG 2162 Clinical Nursing for Transition to Professional Nursing/Medical-Surgical Nursing (NURS 1601) 1
RNSG 2504 Care of the Client With Common Health Care Needs (NURS 1805) 5
SPCH 1315 Public Speaking 3

Second Semester

BIOL 2420 Microbiology 4
ENGL 1301 Composition and Rhetoric 3
RNSG 1512 Nursing Care of the Childbearing and Childrearing Family (NURS 2807) 5
RNSG 2361 Clinical Nursing III (NURS 2807) 3

SECOND YEAR

First Semester

GOVT 2301 U.S. and Texas Government 3
PHED 1100 Lifestyle Assessment and Modification 1
RNSG 2360 Clinical Nursing IV (NURS 2808) 3
RNSG 2514 Care of the Client With Complex Health Care Needs (NURS 2808) 5

*When students have successfully completed RNSG 1227, RNSG 2162, and RNSG 2504 they are eligible to enter the second year of the curriculum.

NURSING COURSES

RNSG 1108 Dosage Calculations for Nursing

(51.1601) (0-3) 1 hour

Dosage calculations include reading, interpreting and solving calculation problems encountered in the preparation of medications; and conversion of measurements within the apothecary, avoirdupois, and metric system. (SCANS 3, 4, 8, 9, 11) Prerequisite: None.

RNSG 1201 Pharmacology [formerly NURS 1201]

(51.1601) (1-3) 2 hours

Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration

of medications within a legal/ethical framework. The student will also study the safe administration of medications by various routes. (SCANS 1, 2, 3, 6, 9) Prerequisites: BIOL 2401, BIOL 2402, and RNSG 1108.

RNSG 1215 Health Assessment
[formerly NURS 1102]
(51.1601) (1-3) 2 hours
Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. Lab fee required. (SCANS 1, 2, 5, 6, 9, 10, 11) Prerequisites: BIOL 2401 and BIOL 2402 or consent of instructor.

RNSG 1219 Preparation for Basic Nursing Care
[formerly NURS 1503/NURS 1504]
(51.1601) (1-3) 2 hours
Development of basic nursing skills for care of diverse clients across the life span. Topics include knowledge, skills, and professional values within a legal/ethical framework. Study of the concepts and principles essential for demonstrating competence in the performance of nursing procedures, including medical terminology. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: BIOL 2401, BIOL 2402, HPRS 1106, PSYC 2301, and RNSG 1108.

RNSG 1227 Transition From Vocational to Professional Nursing
[formerly NURS 1601]
(51.1601) (1-3) 2 hours
Topics include health promotion, expanded assessment, analysis of data, nursing process, pharmacology, multidisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the life span. Preparation for role transition from vocational to professional nursing. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: BIOL 2401, BIOL 2402, COSC 1301, HPRS 1106, PSYC 2301, PSCY 2314, RNSG 1108, RNSG 1201 and Texas license to practice as a LVN. Corequisites: RNSG 2162 and RNSG 2504 or consent of instructor.

RNSG 1244 Nursing Skills II
[formerly NURS 1306/NURS 1805]
(51.1601) (0-6) 2 hours
Study of the concepts and principles necessary to perform intermediate or advanced nursing skills; and demonstrate competence in the performance of nursing procedures. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: RNSG 1201, RNSG 1215, RNSG 1219, RNSG 1261, and RNSG 1423 or consent of instructor.

RNSG 1261 Clinical Nursing I
[formerly NURS 1503/NURS 1504]
(51.1601) (0-6) 2 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Clinical experiences are provided in medical-surgical nursing units in a variety of structured health care settings. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: BIOL 2401, BIOL 2402, HPRS 1106, PSYC 2301, and RNSG 1108. Corequisite: RNSG 1423.

RNSG 1423 Introduction to Professional Nursing
[formerly NURS 1503]
(51.1601) (3-3) 4 hours
Introduction to the profession of nursing including the roles of the registered nurse with emphasis on the application of a systematic, problem-solving process to provide care to diverse clients across the life span; and including applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Health care needs relating to the integumentary system, sensory needs, and homeostasis are studied. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: BIOL 2401, BIOL 2402, HPRS 1106, PSYC 2301, and RNSG 1108. Corequisites: RNSG 1261.

RNSG 1462 Clinical Nursing II
[formerly NURS 1306/NURS 1805]
(51.1601) (0-12) 4 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is

an unpaid learning experience. Clinical experiences are provided in medical-surgical nursing units in a variety of structured health care settings. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1201, RNSG 1215, RNSG 1219, RNSG 1261, and RNSG 1423. Corequisite: RNSG 2504.

RNSG 1512 Nursing Care of the Childbearing and Childrearing Family
[formerly NURS 2807]
(51.1601) (4-3) 5 hours
Study of the concepts related to the provision of nursing care for childbearing and childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childbearing family during preconception, prenatal, antipartum, neonatal, and postpartum periods and the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. Theory related to community health, women's health, nutrition, and teaching are included. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1244, RNSG 1462, RNSG 2504 and PSYC 2314. Corequisite: RNSG 2361.

RNSG 2162 Clinical Nursing for Transition to Professional Nursing/ Medical-Surgical Nursing
[formerly NURS 1601]
(51.1601) (0-3) 1 hour
An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Clinical experiences are provided in a variety of structured medical-surgical health care settings and in simulated learning experiences. Lab fee required. (SCANS 1, 2, 5, 6, 7, 10, 11) Prerequisites: BIOL 2401, BIOL 2402, COSC 1301, HPRS 1106, PSYC 2301, PSYC 2314, RNSG 1108, RNSG 1201 and Texas license to practice as an LVN. Corequisite: RNSG 1227. Successful completion of this course as a corequisite with RNSG 1227 and RNSG 2504 allows the student to be eligible to enter the second year of the Odessa College Nursing Career Ladder Option curriculum.

RNSG 2360 Clinical Nursing IV
[formerly NURS 2808]
(51.1601) (0-9) 3 hours
An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Clinical experiences are provided in a variety of structured adult and pediatric critical care and mental health settings. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1512 and RNSG 2361. Corequisite: RNSG 2514.

RNSG 2361 Clinical Nursing III
[formerly NURS 2807]
(51.1601) (0-9) 3 hours
An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Clinical experiences are provided in a variety of structured obstetrical, pediatric and community settings. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1244, RNSG 1462, RNSG 2504, and PSYC 2314. Corequisite: RNSG 1512.

RNSG 2504 Care of the Client With Common Health Care Needs – Medical-Surgical Nursing I
[formerly NURS 1805]
(51.1601) (5-0) 5 hours
Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the life span with common health care needs. Opportunities for collaboration with members of the multidisciplinary health care team. Content includes applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Theory includes (but is not limited to) care of adults with cardiovascular, endocrine, GI/GU, immunological, neurological, oncological, orthopedic, renal and respiratory alterations. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1201, RNSG 1215, RNSG 1219, RNSG 1261, and RNSG 1423. Corequisites: RNSG 1462 or RNSG 1227 and RNSG 2162.

RNSG 2514 Care of the Client With Complex Health Care Needs
[formerly NURS 2808]
(51.1601) (4-3) 5 hours
Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the life span with complex health care needs in health maintenance and health restoration. Opportunities to collaborate with members of the multidisciplinary health care team. Topics include the role of the nurse as client advocate and coordinator of care and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Includes care of adult and pediatric clients in critical care and mental health settings. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1512 and prerequisite or corequisite: RNSG 2360.

VNSG 1230 Maternal-Neonatal Nursing
[formerly NURS 1821]
(51.1613) (2-0) 2 hours
Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Prepares the student to meet the NEAC competencies at the vocational level. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: RNSG 1244, RNSG 1561, RNSG 2504, and PSYC 2308. Corequisites: VNSG 1413 and VNSG 1460.

VNSG 1413 Applied Nursing Skills II
[formerly NURS 1222/NURS 1821]
(51.1613) (2-6) 4 hours
Application of nursing skills to meet more complex client needs utilizing the nursing process and related scientific principles. Includes medical surgical, mental health, pediatrics, and personal and vocational adjustments in preparation for meeting the NEAC competencies at the vocational level. Lab fee required. (SCANS 1, 2, 5, 6, 7, 10, 11) Prerequisites: PSYC 2314, RNSG 1244, RNSG 1462, and RNSG 2504. Corequisites: VNSG 1230 and VNSG 1460.

VNSG 1460 Clinical Practical Nurse – Medical-Surgical/Obstetric/Pediatric Nursing at the VN Level
[formerly NURS 1821]
(51.1613) (0-12) 4 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Clinical experiences are provided in a variety of structured medical/surgical, obstetrical, and pediatric health care settings. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: RNSG 1244, RNSG 1461, RNSG 2504, and PSYC 2314. Corequisites: VNSG 1230 and VNSG 1413.

Nursing - LVN

Faculty – Andrews: Patricia Bayless, chair; Stacy Crownover, coordinator; Teresa Blakeney.

Faculty – Monahans: Patricia Bayless, chair; Elizabeth Hodges.

The curriculum of the Odessa College nursing programs prepares the student for a variety of experiences in health care, including hospitals, home health care services, mental health agencies and occupational care in industry. Nursing is a caring-oriented human experience requiring a well-educated nurse. Odessa College nursing programs are designed to allow students maximum flexibility to obtain this education.

The Vocational Nursing Option is designed for those students who wish to complete their education at the vocational level. Successful completion of the vocational level qualifies the student as an eligible candidate to take the National Council for Licensure Examination for PN. The student will receive a certificate of completion.

The vocational programs are accredited by the Board of Vocational Nurse Examiners for the State of Texas. Curriculum plans are approved by the Texas Higher Education Coordinating Board. Information concerning tuition and fees, and length of the program are available from NLNAC, 61 Broadway, New York, NY 10006; 1-800-669-9656.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Admission requirements for LVN Option:

1. Applications should be submitted no later than March 1 for fall admission.
2. Official high school transcript or GED.
3. College cumulative GPA of 2.0 or higher in all courses.
4. A satisfactory score on the vocational nursing entrance exam.
5. Current CPR certification (American Heart Association Course C or Red Cross Basic Life Support for the Professional).
6. Persons who have been convicted of a felony will not qualify as an eligible candidate to take the National Council for Licensure Examination (NCLEX) – Practical Nurse (PN).
7. Students wishing to apply for admission or persons seeking additional information should contact either the Student Development Center at Odessa College or the program chairs in Andrews or Monahans.
8. All courses must be passed with a grade of "C" or better. A "C" is 75%.
9. All qualified applicants will be interviewed by the program chair in either Andrews or Monahans.
10. Proof of health and accident insurance and professional liability coverage.

Although English language proficiency is not required for admission to the nursing options, successful completion of the program necessitates good communication skills in English. There is no discrimination due to age, sex, color, race, cultural or ethnic 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, geriatric nursing experiences and special selected services. All courses in the curriculum are required.

Students must complete the outcome competencies for each level with a minimum grade of "C" in nursing courses. A grade of "D" or "F" is unacceptable. Students must maintain a cumulative GPA of 2.0 or above in all course work each semester.

Note: Nursing students are required to maintain coverage in health and accident insurance. Professional liability insurance is mandatory.

Nursing students are responsible for their own transportation to clinical facilities. The nursing department 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.

Vocational Nursing Option – Andrews and Monahans Extensions

The Vocational Nursing Option is offered at the Andrews and Monahans extension sites. It is

designed for those students who wish to complete their education at the vocational level. Successful completion of the vocational level qualifies the student as an eligible candidate to take the National Council for Licensure Examination for vocational nurses. The student will receive a certificate of completion from Odessa College.

Course of Study for Certificate of Completion

Semester Hrs

First Semester

VNSG 1227 Essentials of Medication Administration (NURS 1612) 2
VNSG 1360 Clinical Practical Nurse/ Vocational Nurse 3
VNSG 1405 Health Science (NURS 1611) 4
VNSG 1500 Nursing in Health and Illness I 5
VNSG 1502 Applied Nursing Skills I (NURS 1611) 5

Second Semester

VNSG 1219 Professional Development (NURS 1611) 2
VNSG 1406 Maternal/Newborn Nursing (NURS 1613) 4
VNSG 1407 Pediatric Nursing (NURS 1613) 4
VNSG 1461 Clinical Practical Nurse/ Vocational Nurse 4
VNSG 1509 Nursing in Health and Illness II (NURS 1614) 5

Summer Session I and II

VNSG 1238 Mental Illness (NURS 1612) 2
VNSG 1463 Clinical Practical Nurse/ Vocational Nurse 4
VNSG 1510 Nursing in Health and Illness III (NURS 1615) 5

Total Hours 49

NURSING COURSES

VNSG 1219 Professional Development
[formerly NURS 1611]
(51.1613) (2-0) 2 hours
Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. The student will describe the role of the licensed vocational nurse in multi-disciplinary settings inclusive of basic principles of leadership and management; discuss the role of professional organizations and regulatory agencies, and identify criteria and appropriate resources for continuing education. (SCANS 1, 2, 5, 6, 7, 9, 10, 11) Prerequisites: VNSG 1227, VNSG 1360, VNSG 1405, VNSG 1500, and VNSG 1502.

VNSG 1227 Essentials of Medication Administration
[formerly NURS 1612]
(51.1613) (2-1) 2 hours
General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement. The student will demonstrate accurate dosage calculation; discuss the principles of medication administration safety; and identify the elements of accurate documentation of medication administration. Math proficiency is determined by examination. (SCANS 1, 2, 3, 4, 5, 6, 9, 10, 11) Prerequisite: None.

VNSG 1238 Mental Illness
[formerly NURS 1612]
(51.1613) (2-0) 2 hours
Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. The student will identify common mental illnesses and maladaptive behavior; utilize the nursing process to assist in planning care for the individual with mental illness or maladaptive behavior; and discuss trends in the management of the individual requiring psychotherapeutic treatment and pharmacologic agents. Therapeutic communication is emphasized. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: VNSG 1219, VNSG 1406, VNSG 1407, VNSG 1461, and VNSG 1509. Corequisite: VNSG 1463.

VNSG 1360 Clinical Practical Nurse/Vocational Nurse
(51.1613) (0-17) 3 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None. Corequisites: VNSG 1227, VNSG 1405, VNSG 1500, and VNSG 1502.

VNSG 1405 Health Science
[formerly NURS 1611]
(51.1613) (3-3) 4 hours
An introduction to the general principles of anatomy and physiology, nutrition, and microbiology that are necessary for understanding body processes and basic principles underlying health promotion and therapeutic interventions. The student will identify and describe major body structures and functions which comprise the major body systems; recognize and describe the relationship of nutrition to health and illness across the life span; identify microorganisms as causative agents in disease; and identify common causes for disease, modes of transmission, and methods of prevention and control. (SCANS 1, 2, 3, 5, 6, 7, 9) Prerequisite: None.

VNSG 1406 Maternal/Newborn Nursing
[formerly NURS 1613]
(51.1613) (3-2) 4 hours
A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonatal care. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium. The student will discuss human reproduction and fetal development as related to the normal aspects of childbearing; identify common complications of the mother and newborn during prenatal, antenatal, and postnatal periods; and relate characteristics of the normal newborn and associated nursing interventions to meet identified health care needs utilizing the nursing process. Pharmacological concepts and nutritional considerations will be explored. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: VNSG 1227, VNSG 1360, VNSG 1405, VNSG 1500, and VNSG 1502. Corequisite: VNSG 1461.

VNSG 1407 Pediatric Nursing
[formerly NURS 1613]
(51.1613) (3-2) 4 hours
Study of the care of the pediatric client and family during health and disease. Emphasis on growth and developmental needs. The student will discuss primary nursing care of the pediatric client and family during health and disease; and utilize growth and developmental concepts applicable to the pediatric client. Pharmacological concepts and nutritional considerations will be explored. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: VNSG 1227, VNSG 1360, VNSG 1405, VNSG 1500, and VNSG 1502. Corequisite: VNSG 1461.

VNSG 1461 Clinical Practical Nurse/Vocational Nurse
(51.1613) (0-20) 4 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: Successful completion of the first vocational nursing semester. Corequisites: VNSG 1406, VNSG 1407, and VNSG 1509.

VNSG 1463 Clinical Practical Nurse/Vocational Nurse
(51.1613) (0-18) 4 hours
An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Successful completion of the second vocational nursing semester. Corequisites: VNSG 1238 and VNSG 1510.

VNSG 1500 Nursing in Health and Illness I
[formerly NURS 1611]
(51.1613) (4-4) 5 hours
Introduction to general principles of growth and development, primary health care needs of the client across the life span, and therapeutic nursing interventions. The student will recognize the uniqueness of the gerontologic client related to physical, mental, and emotional changes associated with the aging process; describe the psychosocial, growth and development, and physiological needs of clients across the life span; identify common and overt and actual and potential primary health care needs of the client; identify the basic interventions to support the client and family during life stages including death and dying; identify pharmacological agents and related nursing interventions; and demonstrate competency in dosage calculations. Selected medical-surgical disorders will be presented along with nutritional concepts pertinent to those diseases. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None. Corequisite: VNSG 1360.

VNSG 1502 Applied Nursing Skills I
[formerly NURS 1611]
(51.1613) (3-6) 5 hours
Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles. The student will describe the underlying principles of selected nursing skills and their relationship to client health status; demonstrate satisfactory performance of selected nursing skills utilizing principles of safety; and identify the nursing process used to solve basic client care problems across the life span utilizing appropriate medical terminology. Historical aspects of nursing are examined along with legal implications pertinent to the profession. Communication skills and individual accountability are emphasized. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

VNSG 1509 Nursing in Health and Illness II
[formerly NURS 1614]
(51.1613) (3-6) 5 hours
Introduction to common health problems requiring medical and surgical interventions. The student will compare and contrast normal physiology of body systems to pathologic variations in the adult client with medical-surgical health problems; compare and contrast diagnostic evaluation and treatment of the adult client with common medical-surgical health problems; incorporate nutrition, drug therapy, and nursing interventions in developing plans of care to meet the needs of the adult client experiencing common medical-surgical health problems; and utilize the nursing process in caring for the adult client with common medical-surgical health problems. Emphasis is placed on professional collaboration among health care providers. Critical thinking exercises are incorporated. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: VNSG 1227, VNSG 1360, VNSG 1405, VNSG 1500, and VNSG 1502. Corequisite: VNSG 1461.

VNSG 1510 Nursing in Health and Illness III
[formerly NURS 1615]
(51.1613) (3-6) 5 hours
Continuation of Nursing in Health and Illness II. Further study of common medical-surgical health problems of the client including concepts of mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse. The student will compare and contrast normal physiology of body systems to pathologic variations in the adult client with common medical-surgical health problems; compare and contrast diagnostic evaluation and treatment of the adult client with common medical-surgical health problems; incorporate nutrition, drug therapy, and nursing interventions in developing plans of care to meet the needs of the adult client experiencing common medical-surgical health problems; utilize the nursing process in caring for adults with common medical-surgical health problems and related nursing interventions; and utilize learned skills and knowledge for transition from student to graduate vocational nurse. Critical thinking exercises continue throughout this course. The capstone experience is the PN Comprehensive Predictor for vocational nurses. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: VNSG 1219, VNSG 1406, VNSG 1407, VNSG 1461, and VNSG 1509. Corequisite: VNSG 1463.

Occupational Safety and Health Technology

Faculty: J.D. Roberts, chair; Lynn Reese.

The occupational safety and health degree is designed for people entering the safety and/or environmental department within their company or for those who seek employment in this demanding field. The two-year program is designed to equip the safety/environmental professional with the tools needed to keep his/her company in compliance with current regulatory agencies and to create a safe and healthy work environment for all employees.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Occupational Safety and Health Technology

	Semester Hrs
General Education Requirements	**23**
BIOL 2306 Environmental Biology or GEOL 1403 Physical Geology	3
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology or HRPO 1311 Human Relations (MGMT 2304)	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**37**
EPCT 1301 Hazardous Waste Operations and Emergency Response (OSHA 2396)	3
EPCT 1341 Principles of Industrial Hygiene (OSHA 1320)	3
EPCT 1344 Environmental Sampling and Analysis (OSHA 1310)	3
EPCT 1349 Environmental Regulation Interpretation and Applications (OSHA 2390)	3
OSHT 1309 Physical Hazard Control (OSHA 1315)	3
OSHT 1313 Accident Prevention, Inspection and Investigation (OSHA 1305)	3
OSHT 1325 Safety Training Presentation Techniques	3
OSHT 2380 Cooperative Education – Occupational Safety and Health Technology/Technician (OSHA 2377)	3
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
QCTC 1301 Total Quality Management	3
QCTC 1341 Statistical Process Control (OSHA 2393)	3
*OSHT Elective (any OSHT course not required)	3
Related Requirements	**8**
EMSP 1501 EMT Basic (EMED 1501)	5
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
Total Semester Hours	**68**

*Students may choose from the following pool of courses depending on their individual interest and local industry need: OSHT 1321 Fire Protection Systems, OSHT 1391 or 1491 Special Topics in Occupational Safety and Health Technology/Technician, OSHT 1405 OSHA Regulations – Construction Industry, OSHT 2405 Ergonomics and Human Factors in Safety.

Course of Study for Certificate of Technology

Level I certificates are TASP-waived.

Level I – Occupational Safety and Health Technology

	Semester Hrs
General Education Requirements	**6**
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**22**
EPCT 1301 Hazardous Waste Operations and Emergency Response (OSHA 2396)	3
EPCT 1344 Environmental Sampling and Analysis (OSHA 1310)	3
OSHT 1313 Accident Prevention, Inspection and Investigation (OSHA 1305)	3
OSHT 1325 Safety Training Presentation Techniques	3
OSHT 2380 Cooperative Education – Occupational Safety and Health Technology/Technician (OSHA 2377)	3

OSHT 2401 OSHA Regulations – General Industry (OSHA 2395) 4
QCTC 1301 Total Quality Management 3

Related Requirements **3**
PTRT 1301 Overview of Petroleum Industry (PETR 1300) 3

Total Semester Hours **31**

OCCUPATIONAL SAFETY AND HEALTH TECHNOLOGY COURSES

EPCT 1301 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics
[formerly OSHA 2396]
(15.0507) (3-0) 3 hours
Minimum certification requirements of a hazardous waste site worker as found in 29CFR-1910.120 and 40CFR.264 and 265.16. Designed for industrial, manufacturing and technical workers where state/federal regulations require industrial safety training. Course completers will be certified as a Hazardous Waste Operations Emergency Response Technician (HAZWOPER). Students will be required to exhibit problem-solving, self management, and communication skills while working within a safety environmental team. Within this team environment, students will be responsible for effective allocation of resources and group monitoring of team decisions. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

EPCT 1341 Principles of Industrial Hygiene
[formerly OSHA 1320]
(15.0507) (3-1) 3 hours
Basic concepts in threshold limits, dose response and general recognition of occupational hazards, including sampling statistics, calibration and equipment use. A study of the control of occupational hazards, and sample collection and evaluation methods. Students learn to anticipate, recognize, evaluate and control environmental factors or stresses arising in or from the work place. Students will prepare written reports and recommend actions as a team effort on the results of their findings from workplace sampling. Lab fee required. (SCANS 1, 2, 5, 7, 8, 9, 10) Prerequisite: OSHT 1313 or consent of department chair.

EPCT 1344 Environmental Sampling and Analysis
[formerly OSHA 1310]
(15.0507) (3-0) 3 hours
Sampling protocol, procedures, quality control, preservation technology and field analysis. Emphasis on analysis commonly performed by the field technician. The student will demonstrate proper selection of basic monitoring equipment and instrument calibration, sampling, field analysis, and preservation procedures; representative sampling methods; and prepare and evaluate documentation associated with sampling and field analysis. Competencies include performing and interpreting basic theories, functions, application and analysis of those instruments used in air, water and soil monitoring. The student will be able to prepare a report on the impurities and pollutants in the environment. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: None.

EPCT 1349 Environmental Regulation Interpretation and Applications
[formerly OSHA 2390]
(15.0507) (3-0) 3 hours
An in-depth study of the major federal and state environmental regulations. Covers all pertinent regulatory requirements and strictures affixed to industry by agencies such as the RRC, DOT, FERC, DOE and OSHA. The student will read, interpret and analyze the effects of such rulings and prepare the proper responses. (SCANS 1, 2, 6, 9) Prerequisite: None.

OSHT 1309 Physical Hazards Control
[formerly OSHA 1315]
(15.0701) (3-0) 3 hours
A study of the common physical hazards in industry and methods of workplace design and redesign to control hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards. The student will identify the common physical hazards in industry; design a hazard free work environment; utilize hazard recognition techniques to implement safe control practices; describe the hazard control measures used in workplace designs; and list Occupational Safety and Health Administration (OSHA) standards and other applicable codes and describe their applications. A study of the common physical hazards in industry and methods of workplace design and redesign to control hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards. Student will compile a list of

written process safety information for employees involved with highly hazardous chemicals and recommend the purchasing of safety equipment. Students will be required to exhibit problem-solving, self management and communication skills while working in a safety analysis group. Within this group, students will be responsible for organizing and evaluating safe use, storing, manufacturing, handling or moving hazardous chemicals at the job site or any combination of these activities. (SCANS 1, 4, 5, 6, 9, 10, 11) Prerequisite: None.

OSHT 1313 Accident Prevention, Inspection, and Investigation
[formerly OSHA 1305]
(15.0701) (3-0) 3 hours
Principles and practices providing a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques and accident investigation analysis. The student will recognize common occupational hazards; list Occupational Safety and Health Administration (OSHA) standards and other applicable codes and describe their applications; describe the components of an effective accident investigation; analyze factors which contributed to accidents and recommend appropriate changes to prevent further accidents; and explain the components of an effective safety inspection and make appropriate recommendations to correct hazards identified by the inspection. Competencies include safety and health considerations in the workplace. The student will read accident forms, evaluate and recognize accident causes, effects and safeguards. Student will be required to exhibit problem-solving, self management and communication skills while working within a safety and health group. Within this group, students will be responsible for effective allocation of resources and group monitoring of team decisions. (SCANS 1, 4, 5, 6, 9, 10, 11) Prerequisite: None.

OSHT 1321 Fire Protection Systems
(15.0701) (3-0) 3 hours
Study of fire protection systems and their applications with emphasis on the National Fire Protection Association codes. The student will explain the elements of fire chemistry theory; summarize fire protection methods; describe appropriate application of each fire protection method; and identify the National Fire Protection Association codes in the industrial/business environment. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

OSHT 1325 Safety Training Presentation Techniques
(15.0701) (3-0) 3 hours
General principles of developing and presenting effective industrial/business training. Emphasis on instructor qualifications and responsibilities, principles of learning and teaching, methods and techniques of teaching including use of teaching aids, and presentation skills. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

OSHT 1391 or OSHT 1491 Special Topics in Occupational Safety and Health Technology/Technician
(15.0701) (3-0) or (4-0) 3 or 4 hours
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

OSHT 1405 OSHA Regulations – Construction Industry
[formerly OSHA 2395]
(15.0701) (3-2) 4 hours
A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to the construction industry. 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 inspection and civil litigation. Students will be required to exhibit problem-solving, self management and communication skills while working within a safety environmental team. Within this team environment, students will be responsible for effective allocation of resources and group monitoring of team decisions. Lab fee required. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

OSHT 2380 Cooperative Education – Occupational Safety and Health Technology/Technician
[formerly OSHA 2377]
(15.0701) (1-20) 3 hours
An advanced course with lecture and work-based instruction that helps students gain practical

experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

OSHT 2401 OSHA Regulations – General Industry
[formerly OSHA 2395]
(15.0701) (4-0) 4 hours
A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry. 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 inspection and civil litigation. Students will be required to exhibit problem-solving, self management and communication skills while working within a safety environmental team. Within this team environment, students will be responsible for effective allocation of resources and group monitoring of team decisions. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

OSHT 2405 Ergonomics and Human Factors in Safety
(15.0701) (3-2) 4 hours
A study of the relationship of human behavior and ergonomics as applied to safety. The student will explain the psychology and human behavior related to workplace safety; identify ergonomic hazards and recommend appropriate controls; write an ergonomic proposal which provides recommendations to management; and relate the human factors which contribute to ergonomic hazards. Lab fee required. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

QCTC 1301 Total Quality Management
(15.0702) (3-0) 3 hours
The study of integrating work processes using team participation through employee empowerment and teamwork emphasizing the philosophy of customer service and satisfaction. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

QCTC 1341 Statistical Process Control
[formerly OSHA 2393]
(15.0702) (3-0) 3 hours
Components of statistics including techniques of collection, presentation, analysis and interpretation of numerical data as applied to statistical control. Stresses application of correlation methods, analysis of variance, dispersion, sampling quality control, reliability, mathematical models and programming. Students will be required to exhibit problem-solving, self management and communication skills while working within a safety assessment group. Within this group, students will be responsible for effective measurement of safety performance, unsafe conditions and contributing factors. Students will be required to calculate using various models, probabilities and accident rates. (SCANS 1, 3, 4, 5, 6, 9, 10, 11) Prerequisite: None.

Office Systems Technology

Faculty: Nancy Stewart, chair; Billie Duncan, Wende Ramos.

The office systems technology program is designed to provide students with an intensive training in up-to-date technological skills for immediate employment in the business, medical or legal office. The program also offers students the opportunity to upgrade their skills in the most recent software in order to obtain better employment.

The office systems technology associate in applied science degree is offered with an emphasis in office systems technology, medical or legal. This degree provides students with a broad knowledge of office procedures and applications in the computer and other automated equipment.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Office Systems Technology

	Semester Hrs
General Education Requirements	**17**
*COSC 1301 Introduction to Computer Systems	3
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 1324 Mathematical Analysis for Business or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**48**
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1491)	4
POFI 1449 Spreadsheet (OFST 1406)	4
*POFI 2401 Word Processing (OFST 1404)	4
POFT 1302 Business Communications I (OFST 1402)	3
POFT 1409 Administrative Office Procedures I (OFST 2421)	4
POFT 1425 Business Math and Machine Application (OFST 1401)	4
*POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422)	4
POFT 2303 Speed and Accuracy Building	3
POFT 2312 Business Communication II (OFST 2420)	3
POFT 2365 Practicum – Administrative Assistant/Secretarial Science	3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410)	4
POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410) or ITSC 2421 Integrated Software Applications II (OFST 2402/POFI 1445))	4
Related Requirements	**6**
BUSI 1301 Introduction to Business or BMGT 1301 Supervision (MGMT 1301)	3
HRPO 1311 Human Relations (MGMT 2304)	3
Total Semester Hours	**71**

*Indicates courses which may be articulated by agreement with high school.

Course of Study for Certificate of Technology

Level I certificates are TASP-waived.

Level I – Office Clerk

	Semester Hrs
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
*POFI 2401 Word Processing (OFST 1404)	4
POFT 1302 Business Communications I (OFST 1402)	3
POFT 1425 Business Math and Machine Application (OFST 1401)	4
*POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422)	4
POFT 2303 Speed and Accuracy Building	3
Total Semester Hours	**22**

A total of 22 semester hours and a minimum grade point average of 2.0 are required for a level I certificate.

Level I – Accounting Technician

	Semester Hrs
ACNT 1331 Federal Income Tax: Individual	3
ACNT 1392 Special Topics in Accounting Technician	3
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
ACNT 1411 Introduction to Computerized Accounting	4
ACNT 2369 – Practicum – Accounting Technician	3
POFI 1449 Spreadsheet (OFST 1406)	4
POFT 1302 Business Communications I (OFST 1402)	3
Total Semester Hours	**24**

A total of 24 semester hours and a minimum grade point average of 2.0 are required for a level I certificate.

Level II – Office Assistant

The 22 semester hours specified in Level I Certificate – Office Clerk plus the following courses:

	Semester Hrs
General Education Requirements	**9**
*COSC 1301 Introduction to Computer Systems	3
MATH 1314 College Algebra or MATH 1324 Mathematical Analysis for Business or higher level math	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**26**
ITSC 2421 Integrated Software Applications II (OFST 2402/POFI 1445) or POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410)	4
ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1491)	4
POFI 1449 Spreadsheet (OFST 1406)	4
POFT 1409 Administrative Office Procedures I (OFST 2421)	4
POFT 2312 Business Communications II (OFST 2420)	3
POFT 2365 Practicum– Administrative Assistant/ Secretarial Science	3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410)	4
Total Semester Hours	**57**

A total of 57 semester hours and a minimum grade point average of 2.0 are required for a level II certificate.

Level III (Advanced Skills Certificate) – Office Management Specialist

Students may earn a Level III Certificate (Advanced Skills Certificate) – Office Management Specialist by completing the following requirements. Level III certificates may only be awarded along with or following completion of associate or higher-level degree.

	Semester Hrs
Major Requirements	**4**
ITSC 2421 Integrated Software Applications II (OFST 2402/POFI 1445)	4
Related Requirements	**6**
BMGT 1303 Principles of Management (MGMT 1302)	3
BMGT 2303 Problem Solving and Decision Making	3
Total Semester Hours	**10**

A total of 10 semester hours and a minimum grade point average of 2.0 are required for a Level III Certificate (Advanced Skills Certificate) – Office Management Specialist.

*Indicates courses which may be articulated by agreement with high school.

Course of Study for Associate in Applied Science Degree
Office Systems Technology – Legal Emphasis

	Semester Hrs
General Education Requirements	**17**
*COSC 1301 Introduction to Computer Systems	3
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 1324 Mathematical Analysis for Business or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**51**
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
POFI 1449 Spreadsheet (OFST 1406)	4
*POFI 2401 Word Processing (OFST 1404)	4
POFL 1305 Legal Terminology (OFST 1324)	3
POFL 1459 Legal Transcription (OFST 2415)	4
POFL 2401 Legal Document Processing (OFST 2455)	4

POFT 1302 Business Communications I (OFST 1402) 3
POFT 1409 Administrative Office Procedures I (OFST 2421) 4
POFT 1425 Business Math and Machine Applications (OFST 1401) 4
POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422) 4
POFT 2303 Speed and Accuracy Building 3
POFT 2312 Business Communications II (OFST 2420) 3
POFT 2365 Practicum – Administrative Assistant/ Secretarial Science 3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1491) or POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410) 4

Related Requirements 3
HRPO 1311 Human Relations (MGMT 2304) 3

Total Semester Hours 71

Course of Study for Certificate of Technology

Level I certificates are TASP-waived.

Level I – Legal Office Clerk

Semester Hrs

*POFI 2401 Word Processing (OFST 1404) 4
POFL 1305 Legal Terminology (OFST 1324) 3
POFT 1302 Business Communications I (OFST 1402) 3
POFT 1425 Business Math and Machine Applications (OFST 1401) 4
*POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422) 4
POFT 2303 Speed and Accuracy Building 3

Total Semester Hours 21

A total of 21 semester hours and a minimum 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 – Legal Office Assistant

A total of 21 semester hours specified in Level I Certificate – Legal Office Clerk plus the following courses:

Semester Hrs

General Education Requirements 9
*COSC 1301 Introduction to Computer Systems .. 3
MATH 1314 College Algebra or MATH 1324 Mathematical Analysis for Business I or higher level math 3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech 3

Major requirements 26
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492) 4
POFI 1449 Spreadsheet (OFST 1406) 4
POFL 1459 Legal Transcription (OFST 2415) 4
POFT 1409 Administrative Office Procedures I (OFST 2421) 4
POFT 2312 Business Communications II (OFST 2420) 3
POFT 2365 Practicum – Administrative Assistant/ Secretarial Science 3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or POFI 1491 Special Topics in Information Processing/Data Entry Technician (OFST 2401) or POFT 2433 Advanced Document Formatting Skillbuilding (OFST 2410) 4

Total Semester Hours 56

A total of 56 semester hours and a minimum grade point average of 2.0 are required for a level II certificate.

Level III (Advanced Skills Certificate) – Legal Office Technology Specialist

Students may earn a Level III Certificate (Advanced Skills Certificate) – Legal Office Technology Specialist by completing the following requirements. Level III certificate may only be awarded along with or following completion of associate or higher level degree.

Major Requirements 4
ITSC 2421 Integrated Software Applications II (OFST 2402/POFI 1445) 4

Related Requirements 6
LGLA 1313 Introduction to Paralegal Studies (LEGL 1302) 3
LGLA 2333 Advanced Legal Document Preparation (LEGL 2301) 3

Total Semester Hours 10

A total of 10 semester hours and a minimum grade point average of 2.0 are required for a Level III Certificate (Advanced Skills Certificate) – Legal Office Technology Specialist.

*Indicates courses which may be articulated by agreement with high school.

Course of Study for Associate in Applied Science Degree

Office Systems Technology – Medical Emphasis

	Semester Hrs
General Education Requirements	**17**
*COSC 1301 Introduction to Computer Systems	3
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 1324 Mathematical Analysis for Business or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**51**
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
POFI 1449 Spreadsheet (OFST 1406)	4
*POFI 2401 Word Processing (OFST 1404)	4
POFM 1202 Computers in Health Care (OFST 2101)	2
POFM 1213 Medical Terminology I (OFST 1515)	2
POFM 1353 Medical Coding (OFST 1515)	3
POFM 1431 Medical Transcription I (OFST 2408)	4
POFT 1302 Business Communications I (OFST 1402)	3
POFT 1409 Administrative Office Procedures I (OFST 2421)	4
POFT 1425 Business Math and Machine Applications (OFST 1401)	4
*POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422)	4
POFT 2303 Speed and Accuracy Building	3
POFT 2312 Business Communications II (OFST 2420)	3
POFT 2365 Practicum – Administrative/ Secretarial Science	3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1491) or POFT 2433 Advanced Document Formatting and Skillbuilding (OFST 2410)	4
Related Requirements	**4**
BIOL 2404 Human Anatomy and Physiology	4
Total Semester Hours	**72**

A total of 72 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 of Technology

Level I certificates are TASP-waived.

Level I – Medical Office Clerk

	Semester Hrs
*POFI 2401 Word Processing (OFST 1404)	4
POFM 1213 Medical Terminology I (OFST 1515)	2
POFM 1353 Medical Coding (OFST 1515)	3
POFT 1302 Business Communications I (OFST 1402)	3
POFT 1425 Business Math and Machine Applications (OFST 1401)	4
*POFT 1429 Keyboarding and Document Formatting (OFST 1421) or POFT 2401 Document Formatting and Skillbuilding (OFST 1422)	4
POFT 2303 Speed and Accuracy Building	3
Total Semester Hours	**23**

A total of 23 semester hours and a minimum grade point average of 2.0 are required for a level I certificate.

Level II – Medical Office Assistant

The 23 semester hours specified in Level I Certificate – Medical Office Clerk, plus the following courses:

General Education Requirements	**9**
*COSC 1301 Introduction to Computer Systems	3
MATH 1314 College Algebra or MATH 1324 Mathematical Analysis for Business I or higher level math	3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**24**
*ACNT 1403 Introduction to Accounting I (OFST 1424/POFT 1492)	4
POFM 1202 Computers in Health Care (OFST 2101)	2
POFM 1431 Medical Transcription I (OFST 2408)	4
POFT 1409 Administrative Office Procedures I (OFST 2421)	4
POFT 2312 Business Communications II (OFST 2420)	3
POFT 2365 Practicum – Administrative/ Secretarial Science	3
POFT 2401 Document Formatting and Skillbuilding (OFST 1422) or ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1491) or POFT 2433 Advanced Document Formatting Skillbuilding (OFST 2410)	4
Total Semester Hours	**56**

A total of 56 semester hours and a minimum grade point average of 2.0 are required for a level II certificate.

*Indicates courses which may be articulated by agreement with high school.

Level III (Advanced Skills Certificate) – Medical Office Technology Specialist

Students may earn a Level III (Advanced Skills Certificate) – Medical Office Technology Specialist by completing the following requirements. Level III certificate may only be awarded along with or following completion of associate of higher-level degree.

HRPO 1311 Human Relations (MGMT 2304) 3
ITSC 2421 Integrated Software Applications II (OFST 2402/POFI 1445) or ITSW 2431 Advanced Word Processing (OFST 2401/POFI 1449) 4
POFM 2413 Medical Transcription II (OFST 2417) 4

Total Semester Hours 11

A total of 11 semester hours and a minimum grade point average of 2.0 are required for Level III (Advanced Skills Certificate) – Medical Office Technology Specialist.

*Indicates courses which may be articulated by agreement with high school.

OFFICE SYSTEMS TECHNOLOGY COURSES

ACNT 1331 Federal Income Tax: Individual

(52.1601) (3-0) 3 hours
Basic instruction in the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for the individual. (SCANS 1, 2, 3, 6, 8, 9, 10) Prerequisite: ACNT 1403.

ACNT 1392 Special Topics in Accounting Technician

(52.0302) (3-0) 3 hours
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Special topics include: Governmental and Not-for-Profit Accounting, Auditing, and Intermediate Accounting. (SCANS 1, 2, 3, 6, 8, 9, 10) Prerequisite: ACNT 1403.

ACNT 1403 Introduction to Accounting I [formerly OFST 1424/POFT 1492]

(52.0302) (3-2) 4 hours
A study of analyzing, classifying and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations and payroll. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9, 10) Prerequisite: None.

ACNT 1411 Introduction to Computerized Accounting

(52.0302) (3-2) 4 hours
Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package. Lab fee required. (SCANS 1, 2, 3, 6, 8, 9, 10) Prerequisite: ACNT 1403.

ACNT 2369 Practicum – Accounting Technician

(52.0302) (0-25) 3 hours
An intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. (SCANS 2, 3, 4, 5, 6, 7, 9, 11) Prerequisite: Consent of department chair.

ITSC 2421 Integrated Software Applications II [formerly OFST 2402/POFI 1445]

(11.0101) (3-2) 4 hours
Continued study of computer applications from business productivity software suites. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Lab fee required. (SCANS 2, 3, 4, 5, 6, 7, 8, 9, 10) Prerequisite: POFI 2401.

ITSW 2431 Advanced Word Processing [formerly OFST 2401/POFI 1491]

(11.0301) (3-2) 4 hours
Continuation of the study of word processing including advanced applications in merging, macros, graphics, desktop publishing, and extensive formatting for technical documents. Lab fee required. (SCANS 1, 2, 3, 4, 6, 8, 9, 10) Prerequisite: POFI 2401.

POFI 1449 Spreadsheet
[formerly OFST 1406]
(52.0407) (3-2) 4 hours
Skill development in the use of a spreadsheet software package. Topics include worksheet creation and manipulation functions, templates, macro programming database functions, data-table features and graphics. Lab fee required. (SCANS 2, 3, 6, 9) Prerequisite: POFT 1429 or approval of department chair. Corequisite: POFT 1425 or approval of instructor.

POFI 2401 Word Processing
[formerly OFST 1404]
(52.0407) (3-2) 4 hours
Instruction in the various aspects of a word processing software package. Emphasis on the use of text editing features to produce business documents. Lab fee required. (SCANS 1, 2, 6, 8, 9, 10) Prerequisite: POFT 1429 or equivalent.

POFL 1305 Legal Terminology
[formerly OFST 1324]
(52.0403) (3-0) 3 hours
An introduction to legal terminology including spelling, pronunciation and definition of legal terms and an overview of the law and the professions. (SCANS 1, 2, 6, 11) Prerequisite: None.

POFL 1459 Legal Transcription
[formerly OFST 2415]
(52.0403) (3-2) 4 hours
Skill development in comprehensive vocabulary, listening, organizing and transcribing client-quality documents used in a legal office. Lab fee required. (SCANS 1, 2, 3, 4, 6, 9) Prerequisites: POFI 2401 or other word processing skills, POFL 1305, and POFT 1429 or equivalent, or type 50 wpm.

POFL 2401 Legal Document Processing
[formerly OFST 2455]
(52.0403) (3-2) 4 hours
Skill development in the production of legal documents used in the legal and court systems. Lab fee required. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10) Prerequisites: POFI 2401 and POFL 1305.

POFM 1202 Computers in Health Care
[formerly OFST 2101]
(52.0404) (1-2) 2 hours
Introduction to a computerized method for the management and operation of health care information systems for various types of medical facilities. Lab fee required. (SCANS 1, 2, 3, 4, 6, 8, 9, 11) Prerequisite: None.

POFM 1213 Medical Terminology I
[formerly OFST 1515]
(52.0404) (2-0) 2 hours
Instruction in the practical application of a medical vocabulary system. Topics include structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots, and combining forms; identify correct pronunciation, spelling and definitions of medical terms; and interpret correctly the contents of a written patient scenario. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 11) Prerequisite: None.

POFM 1353 Medical Coding
[formerly OFST 1515]
(52.0404) (3-1) 3 hours
Presentation and application of basic coding rules, principles, guidelines and conventions utilizing various coding systems. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 11) Prerequisite: POFM 1213.

POFM 1431 Medical Transcription I
[formerly OFST 2408]
(52.0404) (3-2) 4 hours
Fundamentals of medical transcription including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Emphasis on development of speed and accuracy. Lab fee required. (SCANS 1, 2, 3, 4, 6, 9) Prerequisites: POFI 2401 or other word processing skills, POFM 1213 or equivalent, or type 50 wpm, and POFT 2401.

POFM 2413 Medical Transcription II
[formerly OFST 2417]
(52.0404) (3-2) 4 hours
Skill development in the production of medical reports including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Emphasis on speed and accuracy. Lab fee required. (SCANS 1, 2, 4, 6, 9) Prerequisites: POFM 1213, POFM 1431, and POFT 1302 or equivalent, type 50 wpm, some word processing experience will be needed for some reports.

POFT 1127 Introduction to Keyboarding
[formerly OFST 1200]
(52.0408) (0-3) 1 hour
Skill development in keyboarding with emphasis on alphabet, number, and symbol keys by touch. Skills can be applied to computers, typewriters, and other equipment with keyboards. Lab fee required. (SCANS 1, 4, 6, 9, 10) Prerequisite: None.

POFT 1302 Business Communications I
[formerly OFST 1402]
(52.0501) (3-0) 3 hours
Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. (SCANS 1, 2, 9, 11) Prerequisite: None.

POFT 1409 Administrative Office Procedures I
[formerly OFST 2421]
(52.0401) (3-2) 4 hours
Study of current office procedures including telephone skills, time management, travel and meeting arrangements, mail processing, and other duties and responsibilities in an office environment. Lab fee required. (SCANS 2, 4, 6, 8, 10) Prerequisites: POFI 1449, POFI 2401, POFT 1302 and POFT 1429.

POFT 1425 Business Math and Machine Applications
[formerly OFST 1401]
(52.0408) (3-2) 4 hours
Skill development in the use of electronic calculators and business mathematical functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard. Lab fee required. (SCANS 1, 3, 4, 8, 9) Prerequisite: MATH 0371 or consent of department chair.

POFT 1429 Keyboarding and Document Formatting
[formerly OFST 1421]
(52.0408) (3-2) 4 hours
Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Lab fee required. (SCANS 1, 2, 3, 4, 6, 8, 9) Prerequisite: None.

POFT 2303 Speed and Accuracy Building
(52.0408) (2-3) 3 hours
Review, correct, improve, and/or perfect touch-keyboarding techniques for the purpose of increasing speed and improving accuracy. Lab fee required. (SCANS 1, 4, 6, 8) Prerequisite: POFT 1429.

POFT 2312 Business Communications II
[formerly OFST 2420]
(52.0501) (3-0) 3 hours
Skill development in practical applications which emphasize the improvement of writing skills necessary for effective business communications. Instruction in proofreading and editing skills necessary to assure accuracy in written documents and business correspondence. (SCANS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11) Prerequisites: POFT 1302 and POFT 2401.

POFT 2365 Practicum – Administrative Assistant/Secretarial Science
(52.0401) (0-25) 3 hours
An intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of department chair.

POFT 2401 Document Formatting and Skillbuilding
[formerly OFST 1422]
(52.0408) (3-2) 4 hours
A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, and following instruction, and keying documents from various copy. Lab fee required. (SCANS 1, 2, 3, 4, 6, 8, 9, 10) Prerequisite: POFT 1429 or equivalent.

POFT 2433 Advanced Document Formatting and Skillbuilding
[formerly OFST 2410]
(52.0408) (3-2) 4 hours
Study of advanced concepts in a variety of office-simulated correspondence activities with emphasis on organization, prioritizing, decision making, composition, placement, accuracy, and speed development. Lab fee required. (SCANS 1, 2, 3, 4, 6, 8, 9) Prerequisite: POFT 2401.

Orientation

Faculty: Dr. Sherrie Lang, director; Angelica Moreno.

ORIE 1100 Orientation is designed to assist those new to Odessa College in gaining the knowledge necessary to function effectively in a college environment. To improve student success, the course will teach academic skills and provide information on available campus resources. Students will be encouraged to develop more definite career plans and an educational plan to fit the career goal. Students will also have a contact point with an Odessa College professional (the course instructor) during the most crucial eight weeks of their college career. ORIE 1100 Orientation is required for first-time students who are taking six or more credit hours.

ORIE 1100 Orientation

(32.0101.5212) (1-0) 1 hour

Helps students gain skills and knowledge necessary to function effectively in a college environment. 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 and standards of progress. Students are required to complete a life skills component (including time management, stress management, test-taking techniques, etc.), an occupational aptitude and interest survey, and a course evaluation. Required of all first-time students who enroll in six or more semester hours during their first semester of attendance. (SCANS 4, 5, 6, 7, 10). Prerequisite: None.

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. New students are encouraged to meet with the department chair prior to registration.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Petroleum Technology

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
GOVT 2301 U.S. and Texas Government	3
MATH 1314 College Algebra	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Major Requirements	**39**
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
PTRT 1303 Drilling (PETR 2310)	3
PTRT 1307 Production Methods (PETR 1320)	3
PTRT 1309 Corrosion Basics (PETR 2360)	3
PTRT 1312 Petroleum Regulations (PETR 2390)	3
PTRT 1316 Petroleum Computer Applications (PETR 1380)	3
PTRT 1324 Petroleum Instrumentation (PETR 1370)	3
PTRT 2331 Well Completions (PETR 1311)	3
PTRT 2332 Artificial Lift (PETR 2388)	3
PTRT 2336 Well Workover (PETR 2325)	3
PTRT 2380 Cooperative Education – Petroleum Technology/Technician (PETR 2377)	3
*Petroleum Electives (any PTRT course not required)	6
Related Requirements	**10**
EPCT 1301 Hazardous Waste Operations and Emergency Response (OSHA 2396)	3
OSHT 1325 Safety Training Presentation Techniques	3
OSHT 2401 OSHA Regulations – General Industry (OSHA 2395)	4
Total Semester Hours	**66**

*Petroleum Electives: Students may choose from the following list of courses depending on their individual needs: PTRT 1306 Drilling Fluids (PETR 1310), PTRT 1317 Natural Gas Processing I, PTRT 1318 Natural Gas Production (PETR 2331), PTRT 1321 Oil Field Hydraulics (PETR 1301), PTRT 2337 Natural Gas Processing II (PETR 2389), PTRT 2340 Well Stimulation (PETR 2382), PTRT 2341 Pipelining (PETR 2350), PTRT 2343 Refining Methods (PETR 2340), PTRT 1391 or PTRT 1491 Special Topics in Petroleum Technology/Technician.

Certificate of Technology Options

Level I certificates are TASP-waived.

Level I – Well Head Pumper

	Semester Hrs
Major Requirements	
ENGL 1312 Report Writing	3
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
PTRT 1307 Production Methods (PETR 1320)	3
PTRT 1309 Corrosion Basics (PETR 2360)	3
PTRT 1316 Petroleum Computer Applications (PETR 1380)	3
PTRT 2332 Artificial Lift (PETR 2388)	3
PTRT 2336 Well Workover (PETR 2325)	3
*Approved Elective (see "Petroleum Electives" listed above for options)	3
Total Semester Hours	**24**

Level I – Gas Compressor Operator

	Semester Hrs
Major Requirements	
ENGL 1312 Report Writing	3
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
PTRT 1312 Petroleum Regulations (PETR 2390)	3
PTRT 1316 Petroleum Computer Applications (PETR 1380)	3
PTRT 1317 Natural Gas Processing I	3
PTRT 2337 Natural Gas Processing II	3
*Approved Elective (see "Petroleum Electives" listed above for options)	3
Total Semester Hours	**21**

Level I – Gas Plant Operator

Semester Hrs

Major Requirements

ENGL 1312 Report Writing	3
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
PTRT 1309 Corrosion Basics (PETR 2360)	3
PTRT 1312 Petroleum Regulations (PETR 2390)	3
PTRT 1316 Petroleum Computer Applications (PETR 1380)	3
PTRT 1317 Natural Gas Processing I	3
PTRT 2337 Natural Gas Processing II	3
*Approved Elective (see "Petroleum Electives" listed above for options)	3
Total Semester Hours	**24**

Level I – Refinery Panel Operator

Semester Hrs

Major Requirements

ENGL 1312 Report Writing	3
PTRT 1301 Overview of Petroleum Industry (PETR 1300)	3
PTRT 1312 Petroleum Regulations (PETR 2390)	3
PTRT 1316 Petroleum Computer Applications (PETR 1380)	3
PTRT 1324 Petroleum Instrumentation (PETR 1370)	3
PTRT 2343 Refining Methods (PETR 2340)	3
*Approved Elective (see "Petroleum Electives" listed above for options)	3
Total Semester Hours	**21**

Level I – Corrosion Technician

Semester Hrs

Major Requirements

METL 2301 Internal Corrosion Control	3
METL 2305 Atmospheric Corrosion Control	3
METL 2341 Cathodic Protection	3
PTRT 1301 Overview of the Petroleum Industry (PETR 1300)	3
PTRT 1307 Production Methods (PETR 1320)	3
PTRT 1309 Corrosion Basics (PETR 2360)	3
PTRT 2380 Cooperative Education – Petroleum Technology/Technician (PETR 2377)	3
Total Semester Hours	**21**

PETROLEUM TECHNOLOGY COURSES

METL 2301 Internal Corrosion Control

(15.0611) (3-0) 3 hours

An in-depth study of internal corrosion found in oil and gas wells, pipelines, refineries, process plants, and other industrial installations including the common forms of nondestructive testing, internal corrosion monitoring techniques, and chemical corrosion treatment methods. The student will demonstrate a knowledge of the principles and forms of internal corrosion; demonstrate the ability to operate, calibrate, and maintain all common internal corrosion testing equipment; perform common gas, liquid, and solid analysis; and analyze corrosion rates by examining liquid, solid, and gas analysis reports. The student will demonstrate a knowledge of internal corrosion mitigation methods appropriate to specific corrosion problems; demonstrate work habits which include safety, cleanliness, efficiency, quality of work, and respect for expensive instrumentation; and calculate corrosion rates and scaling tendencies. The student will apply the principles of corrosion to design, operate, and maintain corrosion control systems within the guidelines of a budget. (SCANS 3, 4, 6, 8, 9) Prerequisite: None.

METL 2305 Atmospheric Corrosion Control

(15.0611) (3-0) 3 hours

An in-depth study of atmospheric corrosion control by coatings which includes surface preparation, coating selection, coating application, inspection, and failure analysis. The student will identify the mechanisms utilized by coatings to control corrosion; select appropriate coating materials for specific corrosion applications; determine the appropriate surface preparation and application procedures required for all common coating materials; and demonstrate the ability to operate, calibrate, and maintain all common coating inspection instruments. The student will demonstrate work habits which include safety, cleanliness, efficiency, quality of work, and respect for expensive instrumentation; recognize the causes of common coating failures; and identify the corrective measures needed to modify or improve the performance of equipment. (SCANS 3, 4, 6, 8, 9) Prerequisite: None.

METL 2341 Cathodic Protection

(15.0611) (3-0) 3 hours

An in-depth study of corrosion control of buried or submerged metallic structures utilizing both impressed and galvanic cathodic protection systems. Emphasis on regulatory compliance for pipelines and underground storage tanks. The student will demonstrate a knowledge of metallic corrosion theory; describe the two types of cathodic protection and determine the best design based upon economic considerations; demonstrate the ability to operate and maintain cathodic protection instruments; and demonstrate work habits which include safety, cleanliness, efficiency, quality of work, and respect for expensive instrumentation. The student will comprehend pipeline schematics, mapping systems, and other record keeping practices related to cathodic protection; identify federal and state rules and regulations which apply to cathodic protection installations, troubleshoot cathodic protection systems; and apply the principles of corrosion to design, operate, and maintain corrosion control systems within the guidelines of a budget. (SCANS 3, 4, 6, 8, 9) Prerequisite: None.

PTRT 1301 Overview of Petroleum Industry

[formerly PETR 1300]

(15.0903) (3-0) 3 hours

An overview of the entire petroleum industry. Purposes 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. The student will be responsible for reading and analyzing charts and diagrams and calculating downhole volumes, displacements and pressures. (SCANS 1, 3, 4, 6, 8, 9) Prerequisite: None.

PTRT 1303 Drilling

[formerly PETR 2310]

(15.0903) (3-0) 3 hours

A study of practices and procedures that are involved in drilling operations. Topics on rig equipment, casing design, fishing and proper procedures to successfully drill a well are implemented. Instruction in volume calculations, hydrostatic pressures, formations pressures, and analyzing problems in downhole drilling operations. (SCANS 1, 3, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1306 Drilling Fluids

[formerly PETR 1310]

(15.0903) (3-0) 3 hours

A study of the functions and properties of the fluids used in drilling an oil or gas well. The various types of mud systems for different formations will be discussed and developed. Competencies include performing and interpreting basic calculations and tests that are performed on the 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 1, 2, 3, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1307 Production Methods

[formerly PETR 1320]

(15.0903) (3-0) 3 hours

An introduction to the different methods associated with petroleum production: natural flow and artificial lift. The student will also develop skills and competency in lease layout and specific recovery methods such as water flooding, chemical flooding, thermal processes and CO_2 injections. The student will perform basic calculations, interpret graphical results and evaluate information for a given oil or gas well. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1309 Corrosion Basics

[formerly PETR 2360]

(15.0903) (3-0) 3 hours

Principles of corrosion such as basic electrochemistry processes. Addresses the deterioration of materials, devices, or pieces of oil field (or other) machinery/equipment. Emphasis on terminology associated with metallic and nonmetallic corrosion. A problem-based course to provide competencies in the corrosive effects on surface and downhole equipment, pipelines and other oilfield situations. Students will analyze basic causes and recommend the most reliable solutions. (SCANS 1, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1312 Petroleum Regulations

[formerly PETR 2390]

(15.0903) (3-0) 3 hours

A course in regulatory requirements and structures affixed to the petroleum industry by state and agencies. Topics include the Texas Railroad Commission, the Texas Natural Resource Conservation Commission, Occupational Safety

and Health Administration, Department of Energy and Department of Transportation. The student will analyze the effects of such rulings and prepare the proper responses. (SCANS 1, 2, 6, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1316 Petroleum Computer Applications
[formerly PETR 1380]
(15.0903) (3-0) 3 hours
An overview of computer applications in the petroleum industry. Covers the history, fundamentals, terminology and software for different petroleum applications. Includes solving problems and projecting income from a producing oil and gas well. Lab fee required. (SCANS 2, 3, 6, 8, 9) Prerequisite: None.

PTRT 1317 Natural Gas Processing I
(15.0903) (3-0) 3 hours
An overview of natural gas processing operations. Fundamentals of gas processing, the nature of heat and how it implements the process, gas plant processing equipment, and procedures from raw materials to the refined products. (SCANS 2, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1318 Natural Gas Production
[formerly PETR 2331]
(15.0903) (3-0) 3 hours
An overview of the aspects of natural gas production including gas well testing; field handling of gas well casing head gas; separation, metering, and dehydration equipment; and gas compression/transportation systems. Includes handling corrosives, corrosive and inert gases, and equipment for separation, dehydration and control of natural gas. (SCANS 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1321 Oilfield Hydraulics
[formerly PETR 1301]
(15.0903) (3-0) 3 hours
Presents hydraulics applicable to drilling, completion and production. Includes calculating and evaluating the characteristics of the flowing and static fluids in various tubular and annular systems. (SCANS 1, 3, 6, 8, 9) Prerequisite: PETR 1301 or consent of the department chair.

PTRT 1324 Petroleum Instrumentation
[formerly PETR 1370]
(15.0903) (3-0) 3 hours
Surveys the instruments, measurements, and control devices used with the major aspects of the petroleum industry. Basic terminology, functions, and applications of the various instruments will be discussed. (SCANS 1, 2, 3, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 1391 or PTRT 1491 Special Topics in Petroleum Technology/Technician
(15.0903) (3-0) or (4-0) 3 or 4 hours
Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: None.

PTRT 2331 Well Completions
[formerly PETR 1311]
(15.0903) (3-0) 3 hours
Prepares the student to evaluate the effects of drilling through the production formation and choose the tools and procedures for completing a drilled wellbore. 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: PTRT 1301 or consent of the department chair.

PTRT 2332 Artificial Lift
[formerly PETR 2388]
(15.0903) (3-0) 3 hours
Practical aspects of artificial lift in conventional production systems. Designed for students who have completed PTRT 1307 Production Methods and who need further knowledge of various lift 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: PTRT 1301 or consent of the department chair.

PTRT 2336 Well Workover
[formerly PETR 2325]
(15.0903) (3-0) 3 hours
In-depth study and analysis of the various problems associated with the producing wellbore. Students discuss and evaluate the economics of working over an oil or gas well. Presents basic

competencies of oil and gas well servicing, workover, plugging, reentry, equipment needs and maintenance programs. Students 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 or gas well. (SCANS 1, 2, 3, 4, 6, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 2337 Natural Gas Processing II

(15.0903) (3-0) 3 hours

A course in accuracy, quality, and validation of gas and liquid measurement techniques for field and plant operating personnel. General principles of correct techniques of measurement and proper procedures to correct errors will be emphasized. (SCANS 2, 8, 9) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 2340 Well Stimulation

[formerly PETR 2382]

(15.0903) (3-0) 3 hours

Variables necessary for stimulating oil or gas wells to increase production. Includes factors in determining the economics of a producing well as to fracture or acidize the pay zones. (SCANS 3, 6, 8, 9) Prerequisite: PETR 1301 or consent of the department chair.

PTRT 2341 Pipelining

[formerly PETR 2350]

(15.0903) (3-0) 3 hours

An overview of the construction, repair and maintenance of pipeline systems: product, oil, natural gas, salt water and fresh water. Appropriate types of lines for various applications will be discussed. (SCANS 3, 6, 8, 9) Prerequisite: PETR 1301 or consent of the department chair.

PTRT 2343 Refining Methods

[formerly PETR 2340]

(15.0903) (3-0) 3 hours

An overview of petroleum refining techniques including the process, equipment, and support personnel necessary to convert crude petroleum or natural gas into the different products and uses. (SCANS 8) Prerequisite: PTRT 1301 or consent of the department chair.

PTRT 2380 Cooperative Education – Petroleum Technology/Technician

[formerly PETR 2377]

(15.0903) (1-20) 3 hours

An advanced course with the lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry. Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Photography

	Semester Hrs
General Education Requirements	**23**
ARTS 1311 Design I	3
COSC 1301 Introduction to Computer Systems	3
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 I or higher level math	3
PHED (any two one-hour activity courses)	2
PSYC 2302 Applied Psychology	3
SPCH 1321 Business and Professional Speech	3
Elective	**3**
Major Requirements	**39**
*COMM 1307 Introduction to Mass Communication	3
COMM 1318 or ARTS 2356 Photography I	3
COMM 1319 or ARTS 2357 Photography II	3
PHTC 1313 History of Photography (PHOT 2370)	3
PHTC 1341 Color Photography I (PHOT 2371)	3
PHTC 1343 Expressive Photography (PHOT 2360)	3
PHTC 1345 Illustrative Photography I (PHOT 2311)	3
PHTC 1349 Photo Digital Imaging I (PHOT 2390)	3
PHTC 2301 Intermediate Photography (PHOT 1361)	3
PHTC 2341 Color Photography II (PHOT 2372)	3
PHTC 2349 Photo Digital Imaging II	3
PHTC 2380 Cooperative Education – Commercial Photography (PHOT 2377)	3
PLUS any one course from this pool of three courses	3
PHTC 1347 Landscape Photography	
PHTC 1351 Photojournalism I or COMM 1316 News Photography	
PHTC 2331 Architectural Photography	
Total Semester Hours	**65**

*Course description may be found in the Mass Communication section of this catalog.

Course of Study for Certificate of Completion

Level I certificates are TASP-waived.

Level I – Photo Lab Assistant

	Semester Hrs
COMM 1318 or ARTS 2356 Photography I	3
COMM 1319 or ARTS 2357 Photography II	3
PHTC 1341 Color Photography I (PHOT 2371)	3
PHTC 1349 Photo Digital Imaging I (PHOT 2390)	3
PHTC 2301 Intermediate Photography (PHOT 1361)	3
PHTC 2341 Color Photography II (PHOT 2372)	3
Total Semester Hours	**18**

Level I – Digital Imaging Assistant

	Semester Hrs
COMM 1318 or ARTS 2356 Photography I	3
COMM 1319 or ARTS 2357 Photography II	3
PHTC 1341 Color Photography I (PHOT 2371)	3
PHTC 1349 Photo Digital Imaging I (PHOT 2390)	3
PHTC 2341 Color Photography II (PHOT 2372)	3
PHTC 2349 Photo Digital Imaging II	3
Total Semester Hours	**18**

Level I – Portrait Studio Assistant

	Semester Hrs
COMM 1318 or ARTS 2356 Photography I	3
COMM 1319 or ARTS 2357 Photography II	3
PHTC 1341 Color Photography I (PHOT 2371)	3
PHTC 1349 Photo Digital Imaging I (PHOT 2390)	3
PHTC 1353 Portraiture I (PHOT 2331)	3

PHTC 2301 Intermediate Photography (PHOT 1361) 3
PHTC 2341 Color Photography II (PHOT 2372) 3
PHTC 2349 Photo Digital Imaging II 3
PHTC 2353 Portraiture II (PHOT 2332) 3

Total Semester Hours 27

PHOTOGRAPHY COURSES

COMM 1318 Photography I
(50.0605.5126)
ARTS 2356 Photography I
(50.0605.5126) (2-4) 3 hours
Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry and presentation skills. Emphasis on design, history and contemporary trends as a means of developing an understanding of photographic aesthetics. The student will assess and select equipment, supplies and techniques to incorporate basic theories of film, exposure, development, filters and printing. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisite: None.

COMM 1319 Photography II
(50.0605.5226)
ARTS 2357 Photography II
(50.0605.5226) (2-4) 3 hours
Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. Students will use efficient learning techniques to acquire and apply creative knowledge and to communicate with others. Designed for additional experience in the photographic medium. Lab fee required. (SCANS 4, 8, 9, 11) Prerequisite: COMM 1318 or ARTS 2356 or its equivalent.

PHTC 1313 History of Photography
[formerly PHOT 2370]
(50.0406) (3-0) 3 hours
A historical survey of the technical and aesthetic development of photography. Topics include the beginnings of the medium, inventors, development of photographic equipment, styles of the creative masters, aesthetic themes, and the social impact of photography. (SCANS 6) Prerequisite: None.

PHTC 1341 Color Photography I
[formerly PHOT 2371]
(50.0406) (2-4) 3 hours
Examination of color theory as it applies to photography. Emphasis on color concepts and the intricacies of seeing and photographing in color. Students will learn how to select color films and filters for various photographic lighting conditions. Emphasis is on printing from color negatives with assignments designed to help the student identify the intricacies of seeing and photographing in color. Lab fee required. (SCANS 4, 8) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 1343 Expressive Photography
[formerly PHOT 2360]
(50.0406) (2-4) 3 hours
A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking, problem solving and the exploration of personal vision. Lab fee required. (SCANS 8, 9) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 1345 Illustrative Photography I
[formerly PHOT 2311]
(50.0406) (2-4) 3 hours
Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Students will learn how to organize and maintain equipment and materials in a photographic studio and select proper lighting for a variety of photographic studio situations. Lab fee required. (SCANS 4, 6, 8) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 1347 Landscape Photography
(50.0406) (2-4) 3 hours
Skill development in the inspection of the landscape visually and photographically utilizing various camera formats. Topics include exploration of historic, geographical, and cultural locations, and review of landscape photographers. Lab fee required. (SCANS 6) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 1349 Photo Digital Imaging I
[formerly PHOT 2390]
(50.0406) (2-4) 3 hours
Instruction in the computer as an electronic darkroom. Topics include color and gray scale images and image conversion and presentation. Students will select and choose a variety of image-

capture devices utilizing Adobe Photoshop. Computer scanning techniques include image control, manipulation and enhancement of photographs and line art plus the importing and exporting of text and graphics from multiple sources. Lab fee required. (SCANS 4, 8) Prerequisite: COMM 1318 or ARTS 2356, or consent of instructor.

PHTC 1351 Photojournalism I
(50.0406)

COMM 1316 News Photography
(09.0401.5506) (2-4) 3 hours

Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab fee required. (SCANS 2, 5, 6, 8, 9) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 1353 Portraiture I
[formerly PHOT 2331]
(50.0406) (2-4) 3 hours

A study of the photographic principles applied to portrait lighting, posing, printing, and subject rapport. Introduces skills to produce professional studio portraiture. Practice gained by making photographs through actual work with adult and child models. Students will learn to assume leadership roles by directing posing techniques of models and selecting proper camera lenses and backgrounds during portrait sessions. Lab fee required. (SCANS 5, 8) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 2301 Intermediate Photography
[formerly PHOT 1361]
(50.0406) (2-4) 3 hours

Study of advanced exposure and printing techniques, archival printing, toning and printing for maximum print quality. Introduction to a variety of camera formats. Designed to give advanced experience in darkroom printing and developing procedures. The course allows students to acquire and evaluate numerous films and papers for various photographic situations. Students will select appropriate photo supplies and equipment for shooting assignments. Includes projection printing, contact printing, black and white print finishing, toning and mixing photographic chemistry. Successful completion qualifies student to work as a black and white lab technician in the photographic industry. Lab fee required. (SCANS 4, 6, 8) Prerequisite: COMM 1318 or ARTS 2356.

PHTC 2331 Architectural Photography
(50.0406) (2-4) 3 hours

Study of the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress. Lab fee required. (SCANS 4, 6, 8) Prerequisite: COMM 1318 or ARTS 2356 or PHTC 1345.

PHTC 2341 Color Photography II
[formerly PHOT 2372]
(50.0406) (2-4) 3 hours

Skill development in advanced color printing or slide production. Emphasis on use of specialized color techniques and applications. Lab fee required. (SCANS 4, 8) Prerequisite: PHTC 1341.

PHTC 2349 Photo Digital Imaging II
(50.0406) (2-4) 3 hours

Continued skill development in the use of the computer for retouching, copying, photographic restoration, color correction, data importation, composite imaging, and background dropout and replacement. Students will utilize layout and design programs such as Adobe Photoshop, Adobe Illustrator, Adobe PageMaker and/or Quark Express. Lab fee required. (SCANS 4, 8) Prerequisite: PHTC 1349.

PHTC 2353 Portraiture II
[formerly PHOT 2332]
(50.0406) (2-4) 3 hours

A continuation of the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Lab fee required. (SCANS 5, 8) Prerequisite: PHTC 1353.

PHTC 2380 Cooperative Education – Commercial Photography
[formerly PHOT 2377]
(50.0406) (1-20) 3 hours

An advanced course with the lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. (SCANS 5, 7, 9, 10, 11) Prerequisite: Consent of the department chair.

Physical and Health Education

Faculty: Keith Blackwill, chair; Timi Brown, Karin Carlson, Paul Chavez, Pat Hodges, Jeff Kelly, Lamont Mason, Orlando Ontiveroz, Brandy Venable, Jim Watkins, 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 degree.

All physical education activity courses may be taken as a pass/fail option.

Course of Study for Associate in Science Degree

Exercise and Sport Science Option

	Semester Hrs
General Education Requirements	**45**
**BIOL 1406 General Biology I	4
**BIOL 1407 General Biology II	4
COSC 1301 Introduction to Computer Systems	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
MATH 1314 College Algebra or higher level math	3
MATH 1342 Mathematical Statistics or higher level math	3
Science (with lab)	4
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Elective	**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**

*PHED 1100 should be the first course taken in physical education.
**CHEM 1311, CHEM 1312, plus CHEM 1111 and CHEM 1112, may be substituted for BIOL 1406 and BIOL 1407.
***Electives will be selected from the following three-hour classes based on senior institution requirements: PHED 1238, PHED 1304, PHED 1306, PHED 1308, PHED 1309, PHED 1321, PHED 1322, PHED 1331, PHED 2278, PSYC 2301 and SOCI 1301.

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.

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	**44**
BIOL 1406 General Biology I	4
BIOL 1407 General Biology II	4
COSC 1301 Introduction to Computer Systems	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
MATH 1314 College Algebra or higher level math .. 3
*PHED (any two one-hour activity courses) 2
Science (with lab) 4
SPCH 1315 Public Speaking or
SPCH 1321 Business and Professional Speech . 3

Elective **3**

Major Requirements **13**
PHED 1171 Athletic Training Clinical Practicum I ... 1
PHED 1304 Personal and Community Health 3
PHED 1306 First Aid 3
PHED 2171 Athletic Training Clinical Practicum II .. 1
PHED 2278 Nutrition in Exercise and Sport 2
PHED 2376 Prevention and Care of
Athletic Injuries 3

****Approved Electives** **6**

Total Semester Hours **66**

*PHED 1100 should be the first course taken in physical education.
** Approved Electives: CHEM 1311, CHEM 1312, ITSC 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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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. Lab fee required. (SCANS 9, 10) Prerequisite: None.

PHED 1103 Defensive Tactics

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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 a secondary benefit of this class. Lab fee required. (SCANS 9, 10) Prerequisite: None.

PHED 1108 Physical Conditioning, Aerobic Super Circuit

(36.0108.5123) (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. Includes a preliminary one-time, two-hour orientation. Lab fee required. (SCANS 4, 9, 10) Prerequisite: None. (Must be at least 16 years old.)

PHED 1109 Physical Conditioning, Aerobic Super Circuit – Advanced

(36.0108.5123) (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. Lab fee required. (SCANS 3, 4, 9, 10) Prerequisite: PHED 1108 or consent of the instructor. (Must be at least 16 years old.)

PHED 1110 Trampoline

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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 students (P.C.S.) to a variety of physical activities including; rhythmical movement, aquatics, hydro-fitness (resistance training), walking/jogging. P.C.S. 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. Lab fee required. (SCANS 5, 9, 10) Prerequisite: Approval by the department chair.

PHED 1113 Weight Training, Advanced

(36.0108.5123) (0-3) 1 hour

Continued improvement in strength and flexibility and the opportunity to develop specific muscle groups. Lab fee required. (SCANS 3, 4, 9, 10) Prerequisite: PHED 1111 or consent of the instructor.

LIFETIME ACTIVITIES

PHED 1114, PHED 1115, PHED 2116 Beginning, Intermediate and Advanced Horsemanship

(36.0108.5123) (0-3) 1 hour each

Basic methods and techniques for various riding events such as rodeo, drill, show and speed horses. The course will cover rider preparation for performance, basic equipment and riding style. Lab fee required. (SCANS 5, 9, 10) Prerequisite: Consent of instructor.

PHED 1116 Badminton

(36.0108.5123) (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

(36.0108.5123) (0-3) 1 hour

The student will learn the mechanics of the approach, release and execution of three 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. Lab fee required. (SCANS 3, 10) Prerequisite: None.

PHED 1118 Social Dance

(36.0114.5123) (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 schottische), 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

(36.0108.5123) (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. Lab fee required. (SCANS 3, 9, 10) Prerequisite: None.

PHED 1120 Ice-Skating, Beginning

(36.0108.5123) (0-3) 1 hour

This course is designed to introduce the student to the fundamental skills of ice-skating as they relate to body control, technique, balance and power. Emphasis is placed on basic skills necessary to perform introductory movements in skating, including falling down and getting up, walking, gliding and stopping. Lab fee required. (SCANS 2, 5, 6, 8, 9, 10, 11) Prerequisite: None.

PHED 1121 Racquetball

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.7123) (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

(36.0108.5123) (0-3) 1 hour

Emphasizes beginning skills in execution of forehand and backhand 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

(36.0108.5123) (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.

PHED 2120 Ice-Skating, Advanced

(36.0108.5123) (0-3) 1 hour

This course is designed for the intermediate and

advanced ice-skating student. Emphasis is placed on improving the power and proficiency of basic skills, with attention focused on these additional skills: forward and backward crossovers, inside and outside edge glides, turns such as forward inside and outside mohawks, one-foot turns, and combinations of the above. Lab fee required. (SCANS 2, 5, 6, 8, 9, 10, 11) Prerequisite: PHED 1120 or consent of instructor.

TEAM SPORTS

PHED 1128 Basketball, Men's

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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)

(36.0108.5123) (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. (SCANS 5, 9, 10) Prerequisite: Advanced swimming skills.

PHED 1147 Swimming, Beginning

(36.0108.5123) (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 Fitness Swimming

(36.0108.5123) (0-3) 1 hour

Aerobic fitness developed through lap swimming. Other fitness parameters include strength, flexibility, nutrition and proper body weight. Physiological principles of exercise. Lab fee required. (SCANS 4, 9, 10) Prerequisite: PHED 1147 or the ability to execute the five basic swimming strokes in deep water.

PHED 1149 Water Sports/Games

(36.0108.5123) (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

(36.0108.5123) (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. (SCANS 3, 4, 5, 9, 10) Prerequisite: None.

PHED 1152 Scuba Diving

(36.0108.5323) (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. Special fee may be required. Lab fee required. (SCANS 5, 9, 10) Prerequisite: PHED 1147 or consent of the instructor.

COMPETITIVE ATHLETICS

PHED 1136 Baseball, Varsity

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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 1141 Track and Field, Varsity

(36.0108.5123) (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 1142 Softball, Varsity

(36.0108.5123) (0-3) 1 hour

Designed for advanced softball 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, 6, 7, 8, 9, 10) Prerequisite: Consent of the instructor.

PHED 1171 Athletic Training Clinical Practicum I

(31.0506.7123) (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 NATA-certified and state of Texas-licensed athletic trainer. Lab fee required. (SCANS 2, 4, 5, 6, 9, 10) Prerequisite: Admission to the student athletic training program and consent of the instructor.

PHED 2136 Baseball, Varsity

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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

(36.0108.5123) (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 2141 Track and Field, Varsity

(36.0108.5123) (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 2142 Softball, Varsity

(36.0108.5123) (0-3) 1 hour

Designed for advanced softball 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, 6, 7, 8, 9, 10) Prerequisite: Consent of instructor.

PHED 2171 Athletic Training Clinical Practicum II

(31.0506.7223) (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. Lab fee required. (SCANS 2, 4, 5, 6, 9, 10) Prerequisite: PHED 1171 and/or consent of the instructor.

PHYSICAL AND HEALTH EDUCATION LECTURE COURSES

PHED 1166 CPR for Allied Health

(51.0301.5316) (0-1) 1 hour

Provides multi-media and skills instruction in American Red Cross CPR at the professional rescuer (those with a duty to respond) level. Emphasis is placed on individual and group skills for responsible action, decision making, and problem solving when faced with an emergency situation; utilization of knowledge necessary for special resuscitation situations; and maintenance of recognized standards of ethical care by first responders. Certification may be obtained in adult one rescuer, adult two rescuer, infant and child CPR. Complies with O.S.H.A. standards, and meets or exceeds Department of Transportation national and state requirements for first responder courses as recognized by the Texas Department of Health. Lab fee required. (SCANS 5, 7, 9, 10, 11) Prerequisites: Proof of admission into an allied health program and consent of instructor.

PHED 1238 Personal Health Assessment and Strategies

(31.0501.5223) (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

(31.0501.5223) (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 physical and health education and recreation; 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 physical and health education and recreation; 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

(51.0301.5116) (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

(51.0301.5316) (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. Lab fee required. (SCANS 5, 7, 9, 10, 11) Prerequisite: None.

PHED 1308 Techniques of Officiating Sports I

(12.0204.5109) (2-2) 3 hours

Provides instruction in effective officiating methods and techniques for sports such as baseball, 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

(12.0204.5109) (2-2) 3 hours

Continues instruction in effective officiating methods and techniques for sports such as baseball, 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 1321 Techniques of Coaching Sports I

(31.0506.5123) (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 sports such as baseball, 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

(31.0506.5123) (2-2) 3 hours
Continues fundamental skills, individual and team play, organization of practices and handling of teams during the competitive season for sports such as baseball, basketball and track. Lab fee required. (SCANS 5, 6, 7, 9, 10, 11) Prerequisite: Consent of the instructor.

PHED 1331 Movement and Recreation

(31.0501.5223) (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 1332 Game Skills for Equestrian Sports and Recreation

(31.0101.5123) (2-1) 3 hours
Survey and development of skills necessary to perform equine sporting and recreational activities. Lab fee required. (SCANS 5, 9, 10) Prerequisite: Consent of the instructor.

PHED 1346 Drug Use and Abuse

(51.0301.5216) (3-0) 3 hours
Provides instruction in the current use and abuse of drugs in today's society. Emphasis is placed on physiological, sociological and psychological factors involved in the use and abuse of drugs. This course also will include instruction in the personal, legal and societal consequences of substance abuse. (SCANS 5, 6, 7, 9, 10) Prerequisite: None.

PHED 2278 Nutrition in Exercise and Sport

(31.0501.5223) (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

(51.0301.5316) (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: Lynn Dammann, chair; Peggy Manning, academic coordinator of clinical education; Tana Pipes, paraprofessional.

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 educated 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, traction, compression, water, massage, ultrasound and therapeutic exercise and assists the physical therapist with evaluative procedures.

The curriculum balances general educational and technical courses and includes supervised internships at hospitals and private clinics. These combined experiences provide students with an opportunity for educational development as well as occupational competence. Licensure of physical therapist assistants is required in the State of Texas and graduates are eligible to take the licensure examination.

Because internship space is limited, students are admitted selectively. To be considered for admission to the program, prospective students must be high school graduates or equivalent, achieve a satisfactory score on selected entrance examinations, complete BIOL 2401 Anatomy and Physiology I and BIOL 2402 Anatomy and Physiology II, have good character references, complete a specified number of volunteer or observation hours in a physical therapy 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. 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. The physical therapist assistant program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Note: All physical therapist assistant students are required to have health and accident insurance and specified immunizations. Liability insurance is also required and is a part of the regular college fee schedule.

Applicants or other interested persons seeking additional information should contact the Student Development Center at Odessa College. Testing deadline is February 28 and application deadline is March 31.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Physical Therapist Assistant

	Semester Hrs
Prerequisite Courses	**8**
BIOL 2401 Anatomy and Physiology I	4
BIOL 2402 Anatomy and Physiology II	4

FIRST YEAR

Summer Session

ENGL 1301 Composition and Rhetoric	3
HPRS 1106 Medical Terminology (BIOL 1170)	1
MATH 1332 Structures of College Math I	3

First Semester

COSC 1301 Introduction to Computer Systems	3
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
PTHA 1201 The Profession of Physical Therapy (PTAP 1401)	2
PTHA 1305 Basic Patient Care Skills (PTAP 1401)	3
PTHA 1321 Clinical Pathophysiology (PTAP 1301)	3

Second Semester

PHED 1166 CPR for Allied Health	1
PSYC 2301 Introduction to Psychology or PSYC 2302 Applied Psychology	3
PTHA 1325 Communication in Health Care (PTAP 1302)	3
PTHA 1431 Physical Agents (PTAP 1502)	4
SPCH 1321 Business and Professional Speech	3

Summer Session

PTHA 2488 Internship I (PTAP 1441)	4

SECOND YEAR

First Semester

PTHA 1413 Functional Anatomy (PTAP 2401)	4
PTHA 2201 Assessment Skills (PTAP 2401/ PTAP 2601)	2
PTHA 2388 Internship II (PTAP 2342)	3
PTHA 2409 Therapeutic Exercise (PTAP 2601)	4

Second Semester

PTHA 2431 Management of Neurological Disorders (PTAP 2702)	4
PTHA 2435 Rehabilitation Techniques (PTAP 2702)	4
PTHA 2489 Internship III (PTAP 2443)	4
Total Hours	**72**

PHYSICAL THERAPIST ASSISTANT COURSES

PTHA 1201 The Profession of Physical Therapy [formerly PTAP 1401]
(51.0806) (2-0) 2 hours
Introduction to the profession of physical therapy including the historical and current scope of physical therapy. Legal aspects and ethical concepts that help prepare the student to participate as a member of the health care team and terminology used in the profession are studied. (SCANS 1, 2, 4, 5, 6, 11) Corequisites: PTHA 1305 and PTHA 1321.

PTHA 1305 Basic Patient Care Skills [formerly PTAP 1401]
(51.0806) (1-6) 3 hours
Introduction to the theory and application of basic patient handling, functional skills, assessment techniques, and measurement techniques. Vital signs, medical asepsis, dressings and bandaging, body mechanics, bed mobility and transfers, normal sensorimotor development and developmentally-based preambulation activities and progressive gait training are studied. (SCANS 1, 2, 6, 9, 11) Corequisites: PTHA 1201 and PTHA 1321.

PTHA 1321 Clinical – Pathophysiology [formerly PTAP 1301]
(51.0806) (3-0) 3 hours
Study of the pathogenesis, prognosis, and therapeutic management of diseases/conditions commonly encountered in physical therapy. The ability to acquire information specific to diagnoses that affect the physical therapy treatment setting, diseases and injuries involving the musculoskeletal and neuromuscular systems, and the need for physical therapy intervention are stressed. (SCANS 1, 2, 5, 6, 11) Corequisites: PTHA 1201 and PTHA 1305.

PTHA 1325 Communication in Health Care [formerly PTAP 1302]
(51.0806) (3-0) 3 hours
Integration of communication theories and principles for optimal delivery of health care. Encompasses psychosocial aspects of health care; verbal, nonverbal and written communication skills; patient-practitioner interaction, including working with diverse patient populations throughout the life span with special emphasis on the geriatric population; and concepts of the practitioner's self-esteem and self-management and their impact on the health care setting. (SCANS 1, 2, 5, 6, 7, 10, 11) Prerequisites: PTHA 1201, PTHA 1305 and PTHA 1321. Corequisite: PTHA 1431.

PTHA 1413 Functional Anatomy [formerly PTAP 2401]
(51.0806) (3-3) 4 hours
Study of human anatomy and its application to the motion of the musculoskeletal system as it relates to normal activities and dysfunctions. Integration of skills related to the kinesiological assessment of the human body. Provides the student with a working knowledge of the human musculoskeletal and neuromuscular systems and an understanding of how these systems interact to produce efficient human movement. (SCANS 1, 2, 6, 11) Prerequisites: PTHA 1201 , PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1431 and PTHA 2488. Corequisites: PTHA 2201, PTHA 2388, and PTHA 2409.

PTHA 1431 Physical Agents [formerly PTAP 1502]
(51.0806) (2-6) 4 hours
Study of the biophysical principles, assessment, and application of therapeutic physical agents with specific emphasis on indications, contraindications, medical efficacy, and physiological effects. Thermal agents, hydrotherapy, ultrasound, electromagnetic radiations, electrical current, biofeedback, traction, intermittent compression, continuous passive motion, and therapeutic massage are studied. (SCANS 1, 2, 3, 6, 8, 9, 11) Prerequisites: PTHA 1201, PTHA 1305 and PTHA 1321. Corequisite: PTHA 1325.

PTHA 2201 Assessment Skills [formerly PTAP 2401/PTAP 2601]
(51.0806) (1-3) 2 hours
Study of assessment techniques used in physical therapy to prepare the physical therapy assistant to assist physical therapy management. The acquisition of muscle function information by use of manual muscle testing; joint range of motion information by use of goniometry; gait information by use of rudimentary gait analysis; and sensory, coordination, and postural assessments are included. (SCANS 1, 2, 3, 6, 9) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1431 and PTHA 2488. Corequisites: PTHA 1413, PTHA 2388 and PTHA 2409.

PTHA 2388 Internship II – Physical Therapist Assistant [formerly PTAP 2342]
(51.0806) (0-16) [12 weeks] 3 hours
An intermediate type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. This internship 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, improving decision-making, problem-solving and reasoning abilities. Consists of a two

day per week experience for twelve weeks under close supervision by a licensed physical therapist or licensed physical therapist assistant. (SCANS 1, 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1431 and PTHA 2488. Corequisites: PTHA 1413, PTHA 2201 and PTHA 2409.

PTHA 2409 Therapeutic Exercise
[formerly PTAP 2601]
(51.0806) (2-6) 4 hours
Critical examination of concepts and application of techniques related to therapeutic exercise and functional training. Elements of normal and abnormal function and facilitation of responses desired in the performance of exercise; monitoring and correcting patient performance; and decision-making, problem-solving and reasoning skills as they relate to therapeutic exercise from a diagnosis/symptom-related perspective are studied and integrated with functional anatomy. (SCANS 1, 2, 5, 6, 9, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1431 and PTHA 2488. Corequisites: PTHA 1413, PTHA 2201 and PTHA 2388.

PTHA 2431 Management of Neurological Disorders
[formerly PTAP 2702]
(51.0806) (3-3) 4 hours
Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Time management, creative thinking, decision-making, problem-solving and reasoning abilities as they relate to progressing the plan of care are emphasized. Sections of study will include selected progressive disabilities, traumatic brain injury, cerebral vascular accident, spinal cord injury, and pediatrics. This course is completed during the first part of the semester to allow for the final full-time internship. (SCANS 1, 2, 5, 6, 9, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1413, PTHA 1431, PTHA 2201, PTHA 2388, PTHA 2409 and PTHA 2488. Corequisites: PTHA 2435 and PTHA 2489.

PTHA 2435 Rehabilitation Techniques
[formerly PTAP 2702]
(51.0806) (3-3) 4 hours
Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected long-term pathologies. Time management, creative thinking, decision-making, problem-solving and reasoning abilities as they relate to progressing the plan of care are emphasized. Sections of study will include selected progressive disabilities, prosthetics, orthotics, cardiac rehabilitation, respiratory care, sports medicine, work hardening, and burn care. This course is completed during the first part of the semester to allow for the final full-time internship. (SCANS 1, 2, 5, 6, 9, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1413, PTHA 1431, PTHA 2201, PTHA 2388, PTHA 2409 and PTHA 2488. Corequisites: PTHA 2431 and PTHA 2489.

PTHA 2488 Internship I – Physical Therapist Assistant
[formerly PTAP 1441]
(51.0806) (0-40) [6 weeks] 4 hours
A basic type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. This internship 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 six weeks full-time experience under close supervision by a licensed physical therapist or licensed physical therapist assistant. (SCANS 1, 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325 and PTHA 1431.

PTHA 2489 Internship III – Physical Therapist Assistant
[formerly PTAP 2443]
(51.0806) (0-40) [6 weeks] 4 hours
An advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. This internship provides the final clinical experience. Consists of a six-week, full-time experience designed as a capstone experience to simulate an actual working 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. 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. Upon completion of this internship, an additional capstone experience in the form of a mock state board exam is included. (SCANS 1, 2, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: PTHA 1201, PTHA 1305, PTHA 1321, PTHA 1325, PTHA 1413, PTHA 1431, PTHA 2201, PTHA 2388, PTHA 2409, and PTHA 2488. Corequisites: PTHA 2431 and PTHA 2435.

Physics

Faculty: G. Brent McAfee, 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	**59**
COSC 1415 Introduction to Computer Science	4
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	3
Foreign language sequence 1411, 1412, 2311, 2312	14
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 2413 Calculus I	4
MATH 2414 Calculus II	4
MATH 2415 Calculus III	4
MATH 2320 Differential Equations	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking	3
Major Requirements	**8**
PHYS 2425 Engineering Physics I	4
PHYS 2426 Engineering Physics II	4
Total Semester Hours	**67**

*Prerequisite to MATH 2413 should be taken during the summer prior to freshman enrollment. Students with strong mathematics background should consider advanced standing examinations.

PHYSICS COURSES

PHYS 1401 College Physics I
(40.0801.5303) (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
(40.0801.5303) (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
(40.0801.5403) (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
(40.0801.5403) (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
(40.0801.5403) (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.

Plumbing (see Air Conditioning)

Psychology and Sociology

Faculty: Jane Hellinghausen, chair; Dr. Art Brownell, Carla Wells.

The psychology/sociology department offers freshman- and sophomore-level courses in psychology and sociology with a wide selection for both disciplines. The science of psychology studies human development and behavior throughout the lifespan, learning, thinking and mood states, gender differences, and relationships. Students are introduced to methodology, critical thinking, and application of psychological principles to everyday life. Career paths offer students a wide selection of occupations including neuropsychology, clinical practice, research, teaching, industrial/organizational and communications. Psychology majors may choose between an associate of arts (A.A.) or an associate of science (A.S.) degree.

The science of sociology studies the multitude of social and cultural influences that are significant to the development of the individual over his/her lifetime. Group dynamics, marriage and family living, juvenile delinquency, race and ethnicity, relationship dynamics and human sexuality empower the student with a wide application of sociological methodology. Career paths offer students many opportunities in government, business, academia, law enforcement, communications, public and/or private research, medical and gerontological occupations.

Psychology/sociology majors are encouraged to organize their degree plans with the assistance and advice of the department chair and academic counselors. It is the responsibility of the student to forecast the transferability of his/her degree plan to university curricula.

Course of Study for Associate in Arts Degree

Psychology or Sociology

	Semester Hrs
General Education Requirements	**53**
COSC 1415 Introduction to Computer Science	4
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	6
General Education Elective	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
Lab Sequence in BIOL, CHEM, GEOL or PHYS	8
MATH 1332 Structures of College Mathematics I	3
MATH 1333 Structures of College Mathematics II	3
PHED (any two one-hour activity courses)	2
PHIL 2306 Introduction to Philosophy II	3
SPCH 1315 Public Speaking	3

In addition to the 53 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 2302 Applied Psychology	3
PSYC 2308 Child Psychology	3
SOCI 1301 Principles of Sociology	3
Total Semester Hours	**65**

Note: The following electives may be substituted for above courses to accommodate the transferring institution: PSYC 2303 Business Psychology, PSYC 2306 Human Sexuality, PSYC 2314 Lifespan Growth and Development, PSYC 2315 Psychology of Adjustment, and PSYC 2319 Social Psychology.

Sociology Option

	Semester Hrs
Major Requirements	**12**
SOCI 1301 Principles of Sociology	3
SOCI 1306 Social Problems	3
SOCI 2326 Social Psychology	3
PSYC 2301 Introduction to Psychology	3
Total Semester Hours	**65**

Note: The following electives may be substituted for above courses to accommodate the transferring institution: SOCI 2301 Sociology of the Family, and SOCI 2306 Human Sexuality.

Course of Study for Associate in Science Degree

Psychology

	Semester Hrs
General Education Requirements	**52**
BIOL 1406 General Biology I	4
BIOL 1407 General Biology II	4
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
COSC 1415 Introduction to Computer Science	4

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
MATH 1314 College Algebra or higher level math .. 3
MATH 1342 Mathematical Statistics 3
PHED (any two one-hour activity courses) 2
SPCH 1321 Business and Professional Speech 3

Major Requirements 12
PSYC 2301 Introduction to Psychology 3
PSYC 2302 Applied Psychology 3
PSYC 2308 Child Psychology 3
SOCI 1301 Principles of Sociology 3

Total Semester Hours 64

Course of Study for Associate in Science Degree
Sociology

	Semester Hrs
General Education Requirements	**52**
BIOL 1406 General Biology I	4
BIOL 1407 General Biology II	4
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
COSC 1415 Introduction to Computer Science	4
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
MATH 1314 College Algebra or higher level math	3
MATH 1342 Mathematical Statistics	3
PHED (any two one-hour activity courses)	2
SPCH 1321 Business and Professional Speech	3
Major Requirements	**12**
SOCI 1301 Principles of Sociology	3
SOCI 1306 Social Problems	3
SOCI 2326 Social Psychology	3
PSYC 2301 Introduction to Psychology	3
Total Semester Hours	**64**

PSYCHOLOGY COURSES

PSYC 2301 Introduction to Psychology
(42.0101.5125) (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
(42.0101.5225) (3-0) 3 hours
Presents a wide array of interpersonal challenges relating to the workplace. Critical workplace competencies include leadership, negotiation, team building, cohesiveness, and communication. Analyzing the interrelationships of organizational behavior across the spectrum from our similarities to our diversities is a major focus. Personal qualities that reinforce job success such 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 2303 Business Psychology
(42.0101.5225) (3-0) 3 hours
Through the presentation of workplace interpersonal skills students are introduced to Industrial/Organization Psychology. Taking an integrative and eclectic approach to the art and science of I/O psychology, the following topics will be addressed: organizational behavior, group dynamics, conflict resolution, politics, sabotage and scapegoating, workplace romance, communication, motivation, personality variables, leadership, and stress and adaptation. Students will apply cognitive strategies to real-life workplace scenarios. (SCANS 5, 6, 7, 9, 10) Prerequisite: None.

PSYC 2306 Human Sexuality
(42.0101.5325) (3-0) 3 hours
An in-depth study of human sexuality across the life cycle utilizing legal, ethical, sociological, biological and psychological perspectives. Course

incorporates current research and theories to explore the impact of social and cultural expectations on human sexual behavior. (SCANS 6, 9, 10, 11) Prerequisite: None.

PSYC 2308 Child Psychology

(42.0701.5125) (3-0) 3 hours

Presents the developmental stages of prenatal, birth, infancy, early, middle, and late childhood and adolescence. Focuses on the interaction between biological/genetic factors and environmental/learned factors. Studies cognitive, physical, socioemotional, and language growth and development at all stages. Requires ten hours of observation of a preschool child and a written case study. (SCANS 6) Prerequisite: None.

PSYC 2314 Lifespan Growth and Development

(42.0701.5125) (3-0) 3 hours

Presents the developmental stages of prenatal; birth; infancy; early, middle, and late childhood; adolescence; young and middle adulthood; old age and death. Focuses on the interaction between biological/genetic factors and environmental/learned factors. Studies cognitive, physical, and development at all stages. Requires six hours of observation of a preschool child and a written case study. Also requires a special written project involving interaction with an adolescent or adult. (SCANS 6) Prerequisite: None.

PSYC 2315 Psychology of Adjustment

(42.0101.5625) (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

(42.1601.5125) (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 are 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

(45.1101.5125) (3-0) 3 hours

Introduces the student to sociological concepts, theories and new ways of thinking about social issues such as poverty, inequality and deviance. Examines various social institutions and their contributions to social life; identifies the social groups that make up society; and explores the significance of culture and social structure for understanding human behavior. Internet course also available. (SCANS 6, 9) Prerequisite: None.

SOCI 1306 Social Problems

(45.1101.5225) (3-0) 3 hours

Critically analyzes the causes of, responses to and implications of numerous social problems utilizing a sociological imagination. Course includes field trips and guest speakers to obtain firsthand knowledge of social problems and to meet professionals who work directly with them. The course is designed to introduce students to social problems as well as to stimulate critical thinking about problems and related policy issues. (SCANS 5, 6, 7, 9, 10, 11) Prerequisite: None.

SOCI 2301 Sociology of the Family

(45.1101.5425) (3-0) 3 hours

Emphasizing cultural, class and racial diversity, the course examines various dynamics of marriages, families and other intimate relationships. Course includes an introduction to theories, concepts and research methods used in the sociological study of marriages and families. Love and mate selection; sexuality, reproduction and birth; communication and conflict; and divorce and marriage are among many of the issues covered. (SCANS 2, 5, 6, 9, 10, 11) Prerequisite: None.

SOCI 2306 Human Sexuality

(42.0101.5325) (3-0) 3 hours

An in-depth study of human sexuality across the life cycle utilizing legal, ethical, sociological, biological and psychological perspectives. Course incorporates current research and theories to explore the impact of social and cultural expectations on human sexual behavior. (SCANS 6, 9, 10, 11) Prerequisite: None.

SOCI 2326 Social Psychology

(42.1601.5125) (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: None.

Radiologic (X-Ray) Technology

Faculty: Sue Leach, chair; Carrie Nanson, 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 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 other courses, or they will be dropped from the program. Prior to entering the practicum portion of the program, students are required to complete a physical examination, which includes drug screening. Background checks are required for all applicants.

Applicants or other interested persons seeking additional information should contact the radiologic technology program director or the Student Development Center at the college. Prospective students are to submit their application packets for admission by April 30, for review by the admissions committee.

Note: Students must obtain and maintain a policy of health and accident insurance throughout their enrollment. Students must purchase liability insurance at the beginning of each semester in which they are enrolled in a practicum.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Radiologic Technology

Summer Session II

	Semester Hrs
GOVT 2301 U.S. and Texas Government or GOVT 2302 American National Government	3
*RADR 1301 Introduction to Radiography (XRAY 1304)	3
RADR 1311 Basic Radiographic Procedures (XRAY 1314)	3

FIRST YEAR

First Semester

**BIOL 2404 Human Anatomy and Physiology	4
RADR 1266 Practicum I (XRAY 1221)	2
RADR 1303 Patient Care (XRAY 1301)	3
RADR 2301 Intermediate Radiographic Procedures (XRAY 1111/2201)	3
RADR 2309 Radiographic Imaging Equipment (XRAY 1401)	3

Second Semester

PHED (any one-hour activity course)	1
RADR 1313 Principles of Radiographic Imaging I (XRAY 1402)	3
RADR 1366 Practicum II (XRAY 1322)	3
RADR 2305 Principles of Radiographic Imaging II (XRAY 2202)	3
RADR 2431 Advanced Radiographic Procedures (XRAY 1112/2201)	4

Summer Sessions

Summer Session I

ENGL 1301 Composition and Rhetoric	3
RADR 1367 Practicum III (XRAY 1323)	3

Summer Session II

COSC 1301 Introduction to Computer Systems	3

SECOND YEAR

First Semester

RADR 2217 Radiographic Pathology (XRAY 1301)	2
RADR 2333 Advanced Medical Imaging (XRAY 2401)	3
RADR 2366 Practicum IV (XRAY 2321)	3
SPCH 1321 Business and Professional Speech	3

Second Semester

MATH 1332 Structures of College Mathematics I or higher level math 3
RADR 1291 Special Topics in Medical Radiologic Technology 2
RADR 2313 Radiation Biology and Protection (XRAY 2402) 3
RADR 2367 Practicum V (XRAY 2322) 3

Summer Session I

RADR 1167 Practicum VI (XRAY 2323) 1
RADR 2235 Radiologic Technology Seminar (XRAY 2323) 2

Total Hours 72

*Note: RADR 1301 may not make during Summer Session II (this class is also offered in the spring semester on Tuesday and Thursday from 6-7:20 p.m.). RADR 1301 is open to anyone considering a career in radiologic technology.

**Note: BIOL 2404 is only offered as a campus class during the fall semester each year. It is offered during the spring semester as an Internet course only.

RADIOLOGIC TECHNOLOGY COURSES

RADR 1167 Practicum VI – Medical Radiologic Technology/Technician [formerly XRAY 2323]

(51.0907) (0-8) 1 hour

An advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. While rotating through different work areas, student participates as a team member while learning to develop and utilize good interpersonal communication skills better enabling the student to meet patients' needs. Competencies include: performance of all duties required of a registered radiologic technologist to include patient positioning, technical factor selection, interpersonal communication skills and film critique (film evaluation regarding anatomy, positioning and technical factors); reading and understanding and demonstrating understanding of positioning materials by selecting necessary equipment and producing standard radiographs on patients with the required 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 clinical rotations: ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 2367. Corequisite: RADR 2235 .

RADR 1266 Practicum I – Medical Radiologic Technology/Technician [formerly XRAY 1221]

(51.0907) (0-16) 2 hours

An intermediate type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. 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 the student 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) and indirect supervision (post-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

examination and film critique. (SCANS 1, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 1311 or consent of department chair. Corequisites: RADR 1303, RADR 2301, and RADR 2309.

RADR 1291 Special Topics in Medical Radiologic Technology/Technician – Professionalism

(51.0907) (2-0) 2 hours

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. The student is required to prepare a cover letter and resume. Learning outcomes/objectives are determined by local occupational need and business and industry trends. (SCANS 1, 2, 6, 7, 9) Prerequisite: RADR 2333. Corequisites: RADR 2313 and RADR 2367.

RADR 1301 Introduction to Radiography [formerly XRAY 1304]

(51.0907) (3-0) 3 hours

This course includes the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the program and the health care system. The student will define basic medical terms; exhibit ethical and legal standards; demonstrate basic radiation protection practices and relate the role of radiography to health care. The student will identify chemicals and steps in radiographic film processing (darkroom procedures); demonstrate a basic understanding of radiographic equipment and auxiliary devices; identify the prime exposure factors. (SCANS 1, 2, 3, 6, 9, 10) Prerequisite: None. Corequisite: RADR 1311.

RADR 1303 Patient Care [formerly XRAY 1301]

(51.0907) (3-0) 3 hours

A course in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Also, sterile technique, patient transportation and body mechanics will be presented. The student will correctly assess patient condition; demonstrate accepted infection control and sterile technique, patient transportation, body mechanics and general safety practices; respond appropriately to emergency situations; practice effective communication skills; locate and understand information on the patient chart; perform venipuncture on a phantom arm; and identify pertinent pharmaceuticals and their applications. (SCANS 1, 2, 3, 5, 6, 9, 10, 11) Prerequisite: RADR 1311 or consent of department chair. Corequisites: RADR 1266, RADR 2301 and RADR 2309.

RADR 1311 Basic Radiographic Procedures [formerly XRAY 1314]

(51.0907) (1-6) 3 hours

This course includes an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy and related pathology. The student will define radiographic positioning terms; manipulate equipment properly; position and align anatomical structure and equipment for upper and lower extremity radiography; and evaluate images for proper demonstration of anatomy and pathology. Lab fee required. (SCANS 1, 5, 6, 7, 8, 9, 10, 11) Prerequisite: Acceptance to the program. Corequisite: RADR 1301.

RADR 1313 Principles of Radiographic Imaging I [formerly XRAY 1402]

(51.0907) (3-1) 3 hours

This course will analyze radiographic image qualities and the effects of exposure variables upon these qualities. The student will define, recognize, and evaluate qualities of the radiographic image; and analyze the effects of exposure variables upon each image quality. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9) Prerequisite: RADR 2309. Corequisites: RADR 1366, RADR 2305 and RADR 2431.

RADR 1366 Practicum II – Medical Radiologic Technology/Technician [formerly XRAY 1322]

(51.0907) (0-24) 3 hours

An intermediate type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. 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 the student to meet patients' needs. Competencies include: production of standard radiographs of the chest, abdomen and upper and lower extremities with indirect supervision (post-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) and 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 related to radiographic examinations performed; assisting radiologist with fluoroscopic examinations and demonstrating specific examinations with a model (performance evaluation). (SCANS 1, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 1266. Corequisites: RADR 1313, RADR 2305, and RADR 2431.

RADR 1367 Practicum III – Medical Radiologic Technology/Technician [formerly XRAY 1323]

(51.0907) (0-24) 3 hours

An intermediate type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. 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) and 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 the computer) related to radiographic examinations performed; assisting radiographers in obtaining radiographs on trauma patients; assisting radiologist with fluoroscopic examinations and demonstrating specific exams with a model (performance evaluation). Includes the following in clinical rotations: special procedures, CT, breast imaging, magnetic resonance, quality assurance and heart catherization. (SCANS 1, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 1366.

RADR 2217 Radiographic Pathology [formerly XRAY 1301]

(51.0907) (2-1) 2 hours

An overview of the disease process and common diseases and their appearance on medical images. The student will classify types of diseases; explain the pathogenesis of common diseases; and identify the appearance of common diseases on medical images. Lab fee required. (SCANS 1, 2, 3, 6, 9, 11) Prerequisites: RADR 1313, RADR 2305 and RADR 2309. Corequisites: RADR 2333 and RADR 2366.

RADR 2235 Radiologic Technology Seminar [formerly XRAY 2323]

(51.0907) (2-0) 2 hours

This is a capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. The student will synthesize professional knowledge, skills, and attitudes; demonstrate entry level competencies for professional employment; and demonstrate skills for lifelong learning. Special fee required. (SCANS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 2313. Corequisite: RADR 1167.

RADR 2301 Intermediate Radiographic Procedures [formerly XRAY 1111/XRAY 2201]

(51.0907) (2-4) 3 hours

A continuation of the study of the proper manipulation of radiographic equipment,

positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of intermediate anatomy and related pathology. The areas to be presented include the thorax, abdomen, spine and routine contrast media procedures. Includes review of upper and lower extremity radiography, topographic anatomy, and routine diagnostic positioning. Students will participate in teams demonstrating their ability to work with diversity, exercise leadership and teach others new skills. The student will manipulate equipment properly; position and align anatomical structures to include the thorax, abdomen, spine and routine contrast media procedures and equipment; work in teams; evaluate images for proper demonstration of anatomy and pathology and demonstrate mastery of positioning of the upper and lower extremities. Lab fee required. (SCANS 1, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 1311 or consent of department chair. Corequisites: RADR 1266, RADR 1303 and RADR 2309.

RADR 2305 Principles of Radiographic Imaging II [formerly XRAY 2202]

(51.0907) (3-1) 3 hours

A continuation of the study of radiographic imaging technique formulation, image quality assurance, and the synthesis of all variables in image production. Discusses equipment maintenance, equipment troubleshooting, departmental design and administration. Explores innovative techniques of imaging. The student will formulate techniques to optimize image quality, minimize patient exposure, and preserve equipment; apply methods of image quality assurance; and adapt technical variables to changing conditions. Lab fee required. (SCANS 1, 2, 3, 6, 7, 8, 9) Prerequisite: RADR 2309. Corequisites: RADR 1313, RADR 1366 and RADR 2431.

RADR 2309 Radiographic Imaging Equipment [formerly XRAY 1401]

(51.0907) (3-0) 3 hours

A study of the equipment and physics of X-ray production, basic X-ray circuits, and the relationship of equipment components to the imaging process. The student will describe the equipment and physics of X-ray circuits, and the relationship of equipment components to the imaging process. (SCANS 1, 2, 3, 6, 8, 11) Prerequisite: RADR 1311 or consent of department chair. Corequisites: RADR 1266, RADR 1303 and RADR 2301.

RADR 2313 Radiation Biology and Protection [formerly XRAY 2402]

(51.0907) (3-0) 3 hours

A study of the effects of radiation exposure on biological systems, typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Presents a review of atomic physics. The student must write and present a term paper. The student will describe the production of x-radiation, the biophysical mechanisms of radiation damage and the somatic and genetic effects of radiation exposure on humans; state typical dose ranges for routine radiographic procedures; explain basic methods and instruments for radiation monitoring, detection, and measurement; and apply appropriate radiation protection practices. (SCANS 1, 2, 3, 6, 7, 9, 11) Prerequisite: RADR 2333. Corequisites: RADR 1291 and RADR 2367 .

RADR 2333 Advanced Medical Imaging [formerly XRAY 2401]

(51.0907) (3-0) 3 hours

An introduction to the use of computers in medical imaging and a survey of specialized imaging modalities. Includes neuroradiography, digital X-ray imaging, computer tomography, angiography, arteriography, foreign body localization, stereoradiography and interventional procedures. The student will explain the use of computers in medical imaging; describe the various specialized imaging modalities; and differentiate between images produced by different modalities and identify the anatomy demonstrated. (SCANS 1, 2, 6) Prerequisites: RADR 1313, RADR 2305, RADR 2309 and RADR 2431. Corequisites: RADR 2217 and RADR 2366.

RADR 2366 Practicum IV – Medical Radiologic Technology/Technician [formerly XRAY 2321]

(51.0907) (0-24) 3 hours

An intermediate type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. 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 the student 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) and 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; and demonstrating specific examinations with a model (performance evaluation). Includes the following clinical rotations: special procedures, computerized tomography, breast imaging, magnetic resonance, cardiac catherization laboratory, ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1, 4, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 1367. Corequisites: RADR 2217 and RADR 2333.

RADR 2367 Practicum V – Medical Radiologic Technology/Technician
[formerly XRAY 2322]

(51.0907) (0-22) 3 hours

An advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum will be an unpaid learning experience. 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 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) and 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 examinations with a model (performance evaluation). Includes the following clinical rotations: ultrasound, nuclear medicine, radiation therapy and quality assurance. (SCANS 1, 4, 5, 8, 11) Prerequisite: RADR 2366. Corequisites: RADR 1291 and RADR 2313.

RADR 2431 Advanced Radiographic Procedures
[formerly XRAY 1112/XRAY 2201]

(51.0907) (3-3) 4 hours

An advanced course including the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of advanced anatomy and related pathology. Presents cross-sectional anatomy, male and female studies, ultrasound and magnetic resonance imaging, and a review of the thorax, abdomen, spine and routine contrast media procedures. The student will master the manipulation of equipment, position and alignment of anatomical structures of the cranium and male and female studies and equipment; evaluate images for proper demonstration of anatomy and pathology; be able to identify cross-sectional anatomy structures; demonstrate mastery of the anatomy and positioning of the thorax, abdomen, spine and routine contrast media procedures; and demonstrate a basic understanding of magnetic resonance imaging and ultrasound. Lab fee required. (SCANS 1, 5, 6, 7, 8, 9, 10, 11) Prerequisite: RADR 2301. Corequisites: RADR 1313, RADR 1366 and RADR 2305.

Reading

Faculty: Tammy Patni, chair; Mona Sandlin, Pam Williamson.

An effective citizen must read well; therefore, reading courses develop efficient tools for use in both the academic and workplace environment. All professional fields require above-average abilities in reading.

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 at all levels of education.

These courses implement multimedia, including computerized instruction, and support the philosophy that a person's ultimate reading potential is never reached. Because effective study skills predominately 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 student they may be, can improve their reading skills.

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. Students who enroll for Basic English (0370) and have not taken and passed the reading section of TASP must enroll in a reading class.

READ 0371 Basic Reading

(32.0108.5212) (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

(32.0108.5212) (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 workplace environments. Includes diagnosis of individual reading strengths and weaknesses for placement in multilevel course that includes computer exercises, timed reading practices and vocabulary study. Lab fee required. (SCANS 1, 9, 10) Prerequisite: None or placement by counselors.

READ 0373 Advanced College Reading

(32.0108.5212) (3-0) 3 hours

Continues independent work to maintain improved critical reasoning skills designed to meet specific needs in comprehension, vocabulary, reading rate, and study skills. The student monitors and corrects ineffective behavior as he assesses himself accurately, sets personal goals, and monitors progress. Lab fee required. (SCANS 1, 7, 9, 10) Prerequisite: READ 0372 passed with a "C" or better, satisfactory placement score or reading faculty approval.

College Reading Techniques

The college reading techniques course provides an alternative reading program with structured, individualized, self-paced instruction in a multimedia and multilevel environment that includes computer instruction. Regardless of present reading ability, students can expect to increase vocabulary and reading rate, and improve comprehension. Effective study techniques offer opportunities to improve performance in both academic and vocational-technical courses.

Diagnostic tests are administered 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 in person immediately upon registration to arrange meeting times for this one-hour self-paced course.

READ 0171 Improving Reading Skills

(32.0108.5212) (0-2) 1 hour

Introduces self-paced, individualized instruction in a multimedia 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 workplace environments, which ultimately can result in higher self-esteem. Through independent learning activities, the student learns to validate his understanding of reading materials, increase vocabulary with various written activities and gain in individual reading rates. Lab fee required. (SCANS 1, 4, 7, 10) Prerequisite: None.

Refrigeration (see Air Conditioning)

Religion (see Social Sciences)

Respiratory Care

Faculty: Jacque Sullivan, chair;
Rhonda McMurrian, clinical coordinator;
Dr. John Bray, medical director.

Odessa College offers an intensive program, which prepares the student to become an integral part of the allied health team. The program graduates a student with an associate of applied science degree and qualifies them to apply for the Certified Respiratory Therapist (CRT) examination administered by the National Board for Respiratory Care.

The curriculum balances general educational and technical courses with supervised clinical practice in conjunction with area medical affiliates. These combined experiences provide students with an opportunity for educational development as well as occupational competence during the 24-month program.

Students are admitted on a selected basis due to limited space in the clinical area of study. To be considered for admission to the program, a prospective student must be a high school graduate or equivalent, achieve a satisfactory score on selected entrance exams, complete a hospital observation, and be approved by the admissions committee. After acceptance into the program, all students are required to maintain a grade of "C" or better in all respiratory care courses 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 described in the catalog. Prior to entering the clinical portion of the program, students are required to complete a physical examination, including drug screening, and provide records of current immunization status.

Note: All respiratory care students are required to have health and accident insurance. Liability insurance is also required and is part of the regular college fee schedule.

The Odessa College respiratory care program is accredited by the Committee on Accreditation of Allied Health Programs through the recommendations of the Committee on Accreditation of Respiratory Care.

Students wishing to apply or seeking additional information should contact the Student Development Center. Prospective students are to submit their applications for admission prior to March 31.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Respiratory Therapy

FIRST YEAR

Summer Session I

	Semester Hrs
BIOL 2401 Anatomy and Physiology I	4
MATH 1332 Structures of College Mathematics I or higher level math	3

Summer Session II

BIOL 2402 Anatomy and Physiology II	4

Fall Semester

COSC 1301 Introduction to Computer Systems	3
PHED 1166 CPR for Allied Health	1
RSPT 1103 Medical Terminology	1
RSPT 1160 Clinical Practice I (RESP 1111)	1
RSPT 1325 Respiratory Care Sciences (RESP 1301)	3
RSPT 1410 Respiratory Care Procedures I (RESP 1400)	4

Spring Semester

RSPT 1213 Basic Respiratory Care Pharmacology (RESP 1115)	2
RSPT 1360 Clinical Practice II (RESP 1322)	3
RSPT 1411 Respiratory Care Procedures II (RESP 1405)	4
RSPT 2310 Cardiopulmonary Disease (RESP 1332)	3
SPCH 1321 Business and Professional Speech	3

Summer Sessions I & II

RSPT 2314 Mechanical Ventilation (RESP 1310)	3
RSPT 2360 Clinical Practice III (RESP 2352)	3

SECOND YEAR

Fall Semester

BIOL 2420 Microbiology	4
RSPT 2325 Cardiopulmonary Diagnostics (RESP 2315)	3
RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care (RESP 2364)	3
RSPT 2361 Clinical Practice IV (RESP 2352)	3

Spring Semester

ENGL 1301 Composition and Rhetoric 3
GOVT 2301 U.S. and Texas Government or
GOVT 2302 American National Government .. 3
RSPT 2133 Respiratory Care Case Management .. 1
RSPT 2231 (Clinical) Simulations in
Respiratory Care 2
RSPT 2247 Specialties in Respiratory Care
(RESP 2320) 2
RSPT 2363 Clinical Practice V (RESP 2362) 3

Total Hours 72

RESPIRATORY CARE COURSES

RSPT 1103 Medical Terminology

(51.0908) (1-0) 1 hour
An introduction to medical terms which will provide the student with the written and verbal skills necessary to communicate with health care personnel. (SCANS 1) Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1160, RSPT 1325 and RSPT 1410.

RSPT 1160 Clinical – Respiratory Therapy Technician – Clinical Practice I [formerly RESP 1111]

(51.0908) (0-6) 1 hour
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Provides the initial exposure to the 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, 5, 6, 8, 9, 11) Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1325 and RSPT 1410.

RSPT 1213 Basic Respiratory Care Pharmacology [formerly RESP 1115]

(51.0908) (2-0) 2 hours
A study of pharmacological principles/practices of respiratory care drugs. Emphasis on classification, routes of administration, dosages/calculations, and interaction of the autonomic nervous system. (SCANS 3, 6, 7, 8, 9, 11) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1360, RSPT 1411 and RSPT 2310.

RSPT 1325 Respiratory Care Sciences [formerly RESP 1301]

(51.0908) (2-4) 3 hours
A study of cardiopulmonary sciences including physics, math, chemistry, and statistics. Lab fee required. (SCANS 2, 3, 6, 8, 9, 11) Prerequisites: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1160 and RSPT 1410.

RSPT 1360 Clinical – Respiratory Therapy Technician – Clinical Practice II [formerly RESP 1322]

(51.0908) (0-16) 3 hours
A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Allows students to participate as a member of the health care team in a clinical setting, including decision-making and troubleshooting skills. Enforces the personal qualities for success such as workplace ethics, time-management and organizational skills, responsibility, and sociability. (SCANS 4, 5, 8, 9, 10) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1411 and RSPT 2310.

RSPT 1410 Respiratory Care Procedures I [formerly RESP 1400]

(51.0908) (3-4) 4 hours
Provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are discussed in-depth: oxygen therapy, humidity and aerosol therapy, hyperinflation therapy, CPT, pulse oximetry, arterial puncture, and interpretation. Lab fee required. (SCANS 3, 8) Prerequisite: Admission to respiratory care program. Corequisites: RSPT 1103, RSPT 1160 and RSPT 1325.

RSPT 1411 Respiratory Care Procedures II [formerly RESP 1405]
(51.0908) (3-4) 4 hours
Provides student with essential knowledge of airway care and mechanical ventilation. Airway care includes indication, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1360 and RSPT 2310.

RSPT 2133 Respiratory Care Case Management
(51.0908) (1-0) 1 hour
Preparation and presentation of the case study. Instruction in the investigation, organization, and presentation of the material, including preparation of questions for group discussion. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2231, RSPT 2247 and RSPT 2363.

RSPT 2231 (Clinical) Simulations in Respiratory Care
(51.0908) (2-0) 2 hours
The theory and history of clinical simulation examinations. Topics include the construction types, scoring, and mechanics of taking the exam along with practice in taking both written and computerized simulations, and basic concepts of computer usage. (SCANS 6) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2247 and RSPT 2363.

RSPT 2247 Specialties in Respiratory Care [formerly RESP 2320]
(51.0908) (1-2) 2 hours
An introduction to areas of interest in which the respiratory therapist may find application and/or employment. The depth of instruction will provide the indications, expected outcomes, hazards and methods for hyperbaric oxygen (HBO), extracoporeal membrane oxygenation (ECMO), nitric oxide (NO), sleep studies, nutritional assessment, metabolic monitoring, exercise/stress testing, and electroencephalograms. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2231 and RSPT 2363.

RSPT 2310 Cardiopulmonary Disease [formerly RESP 1332]
(51.0908) (2-4) 3 hours
A discussion of pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Lab fee required. (SCANS 1, 3, 6, 8) Prerequisites: RSPT 1103, RSPT 1160, RSPT 1325 and RSPT 1410. Corequisites: RSPT 1213, RSPT 1360 and RSPT 1411.

RSPT 2314 Mechanical Ventilation [formerly RESP 1310]
(51.0908) (2-3) 3 hours
Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiologic effects/principles of mechanical ventilation. Lab fee required. (SCANS 3, 6, 8, 9) Prerequisites: RSPT 1213, RSPT 1360, RSPT 1411 and RSPT 2310. Corequisite: RSPT 2360.

RSPT 2325 Cardiopulmonary Diagnostics [formerly RESP 2315]
(51.0908) (2-4) 3 hours
A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2353 and RSPT 2361.

RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care [formerly RESP 2364]
(51.0908) (2-4) 3 hours
A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Lab fee required. (SCANS 3, 6, 7, 8, 9) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2325 and RSPT 2361.

RSPT 2360 Clinical – Respiratory Therapy Technician – Clinical Practice III [formerly RESP 1333]
(51.0908) (0-12) 3 hours
An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory.

Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Provides the student opportunities to demonstrate responsibility, creative thinking, and decision-making skills in critical area. (SCANS 4, 5, 6, 7, 8, 9, 10, 11) Prerequisites: RSPT 1213, RSPT 1360, RSPT 1411 and RSPT 2310. Corequisite: RSPT 2314.

RSPT 2361 Clinical – Respiratory Therapy Technician – Clinical Practice IV [formerly RESP 2352]

(51.0908) (0-16) 3 hours

An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Prepares the student for advanced respiratory techniques including radiologic techniques, operating room rotations, neonatal care, cardiac catheterization, and adult and pediatric critical care. (SCANS 5, 6, 7, 8, 9, 10, 11) Prerequisites: RSPT 2314 and RSPT 2360. Corequisites: RSPT 2325 and RSPT 2353.

RSPT 2363 Clinical – Respiratory Therapy Technician – Clinical Practice V [formerly RESP 2362]

(51.0908) (0-16) 3 hours

An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Completion of the clinical experience prepares the student to perform as a respiratory therapist. (SCANS 2, 4, 5, 6, 7, 8, 9) Prerequisites: RSPT 2325, RSPT 2353 and RSPT 2361. Corequisites: RSPT 2133, RSPT 2231 and RSPT 2247.

Safety (see Occupational Safety and Health Technology)

Social Sciences

Faculty: Dr. Bill Rutherford, chair; Linda D. Brown, Dr. Brian Dille, James Gaddy, Robert Glen Findley, Dr. Tom Heiting, Dr. Dick Kennedy, Dr. Mike Myers, Robert Porter.

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 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**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	6
Foreign Language 1411 and 1412	8
Foreign Language (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 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 1315 Public Speaking	3
Major Requirements	**12**
ECON 2301 Principles of Economics I (Macro)	3
ECON 2302 Principles of Economics II (Micro)	3
HIST 2311 Western Civilization I	3
HIST 2312 Western Civilization II	3
Total Semester Hours	**64**

*HIST 2301, History of Texas may be substituted for either HIST 1301 or HIST 1302.

ECONOMICS COURSES

ECON 2301 Principles of Economics I (Macro)

(45.0601.5125) (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)

(45.0601.5125) (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

(45.1002.5125) (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

(45.1002.5125) (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

(45.0802.5125) (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

(45.0802.5125) (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, postwar adjustments and prospective solutions. (SCANS 6, 9) Prerequisite: None.

HIST 2301 History of Texas

(45.0802.5225) (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 Western Civilization I

(45.0801.5425) (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 Western Civilization II

(45.0801.5425) (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, postwar problems and prospective solutions. (SCANS 6, 9) Prerequisite: None.

HIST 2372 Advanced Historical Analysis

(45.0801.5625) (3-0) 3 hours
An in-depth study of minority local, regional, national, or international topics is presented. This course may be repeated for credit when topics vary. (SCANS 6, 9) Prerequisite: Six hours of history or consent of instructor.

HIST 2381 Afro-American History

(45.1101.5325) (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

(38.0101.5112) (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 2306 Introduction to Philosophy II (Ethics)

(38.0101.5312) (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.

BIBL 1171 Acts of the Apostles
(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
(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
(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
(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
(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: J. Deanne Causey, chair; William Neff, Vicki Patrick, Joe Willis.

The speech department recognizes that effective communication is an essential skill in college, industry and daily life. Students must be able to organize their ideas logically, 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.

Introduction to Speech 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	**45**
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric	3
ENGL 1302 Composition and Literature	3
ENGL (sophomore level)	6
Foreign language 1411 and 1412	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
Science (two sequential semesters of a laboratory science)	8
Major Requirements	**18**
SPCH 1311 Introduction to Speech Communication	3
SPCH 1315 Public Speaking	3
SPCH 1321 Business and Professional Speech	3
SPCH 2333 Discussion and Small Group Communication	3
SPCH 2335 Argumentation and Debate	3
SPCH 2341 Introduction to Oral Interpretation	3
Total Semester Hours	**63**

SPEECH COURSES

SPCH 1311 Introduction to Speech Communication
(23.1001.5112) (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
(23.1001.5312) (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
(23.1001.5212) (3-0) 3 hours
In this course students improve written and oral communication skills which affect business environments. Emphasis is placed on organizational networks, interviewing, presentational address, listening, and group work. 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 2333 Discussion and Small Group Communication
(23.1001.5612) (3-0) 3 hours
This course introduces the group communication process as it applies to various situations. Emphasis is placed on group theories and development, leadership concepts, personality role development and problem solving methods. Participation in group presentations is required. (SCANS 5, 6, 7, 9, 10, 11) Prerequisite: None.

SPCH 2335 Argumentation and Debate

(23.1001.5912) (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

(23.1001.5712) (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 become allied health professionals and an integral part of the team of practitioners who work with the surgeon, the operating room nurse and other skilled professionals to deliver the highest possible level of patient care in the operating room. The role of the surgical technologist encompasses maintaining a safe environment for patients undergoing invasive therapeutic and diagnostic procedures by preparation, handling and operation of sterile supplies and specialized instrumentation. The surgical technologist possesses knowledge of the theory and application of aseptic technique and generally functions as the sterile member of the surgical team.

The first semester courses include medical terminology, asepsis, microbiology, pharmacology, anesthesia, wound healing, sterilization/disinfection, patient/client care concepts and an introduction to clinical experience. A course in CPR for Allied Health also is completed during this semester as well as Medical Terminology. During the second semester Applied Psychology is presented, and the didactic and clinical curricula are expanded to include an introduction to surgical pathology and its relationship to surgical procedures. Opportunity is also given in the clinical course to increase knowledge and skills in general surgical procedures. The six-weeks 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 and a program application by the July 15 deadline. Prerequisites to the program include: BIOL 2401 Anatomy and Physiology I; BIOL 2402 Anatomy and Physiology II (completed within the last five years); official high school transcript or GED; and satisfactory scores on the Allied Health Aptitude Test. A current CPR certification will be received in the PHED 1166 course.

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 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.

Note: Students must maintain health and accident insurance throughout their enrollment. Students also are expected to have proof of professional liability insurance through the college.

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 courses for an associate in applied science degree.

The Odessa College surgical technology program is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP).

Students wishing to apply for admission or other persons seeking additional information should contact the Student Development Center at Odessa College.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree

Surgical Technology

	Semester Hrs
Prerequisite courses	**8**
BIOL 2401 Anatomy and Physiology I	4
BIOL 2402 Anatomy and Physiology II	4

FIRST YEAR

First Semester

HPRS 1106 Medical Terminology (BIOL 1170)	1
PHED 1166 CPR for Allied Health	1
SRGT 1309 Fundamentals of Aseptic Technique	3
SRGT 1405 Introduction to Surgical Technology (SURG 1612)	4
SRGT 1460 Clinical I – Surgical/Operating Room Technician (SURG 1411)	4
SRGT 1491 Special Topics in Surgical/ Operating Room Technician	4

Second Semester

PSYC 2302 Applied Psychology	3
SRGT 1441 Surgical Procedures I (SURG 1613)	4
SRGT 1442 Surgical Procedures II (SURG 1613)	4
SRGT 2660 Clinical II – Surgical/Operating Room Technician (SURG 1614)	6

Summer Session I

SRGT 2461 Clinical III – Surgical/Operating Room Technician (SURG 1615) 4

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 I or higher-level math 3
PHED 1100 Lifestyles Assessment and Modification 1

Second Semester

COSC 1301 Introduction to Computer Systems 3
ENGL 1302 Composition and Literature 3
PSYC 2301 Introduction to Psychology 3
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech 3

Total Hours 72

Course of Study for Certificate of Completion

Level II – Surgical Technology

Semester Hrs

Prerequisite courses 8
BIOL 2401 Anatomy and Physiology I 4
BIOL 2402 Anatomy and Physiology II 4

First Semester

HPRS 1106 Medical Terminology (BIOL 1170) 1
PHED 1166 CPR for Allied Health 1
SRGT 1309 Fundamentals of Aseptic Technique .. 3
SRGT 1405 Introduction to Surgical Technology (SURG 1612) 4
SRGT 1460 Clinical I – Surgical/Operating Room Technician (SURG 1411) 4
SRGT 1491 Special Topics in Surgical/ Operating Room Technician 4

Second Semester

PSYC 2302 Applied Psychology 3
SRGT 1441 Surgical Procedures I (SURG 1613) 4
SRGT 1442 Surgical Procedures II (SURG 1613) ... 4
SRGT 2660 Clinical II – Surgical/Operating Room Technician (SURG 1614) 6

Summer Session I

SRGT 2461 Clinical III – Surgical/ Operating Room Technician (SURG 1615) 4

Total Hours 46

SURGICAL TECHNOLOGY COURSES

SRGT 1309 Fundamentals of Aseptic Technique

(51.0909) (3-0) 3 hours
In-depth coverage of aseptic technique principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. (SCANS 1, 3, 5, 9, 10) Prerequisites: BIOL 2401 and BIOL 2402. Corequisites: SRGT 1405, SRGT 1460 and SRGT 1491.

SRGT 1405 Introduction to Surgical Technology [formerly SURG 1612]

(51.0909) (4-0) 4 hours
Orientation to surgical technology theory, surgical pharmacology and anesthesia, and patient care concepts. (SCANS 1, 3, 5, 9, 10) Prerequisites: BIOL 2401 and BIOL 2402. Corequisites: SRGT 1309, SRGT 1460 and SRGT 1491.

SRGT 1441 Surgical Procedures I [formerly SURG 1613]

(51.0909) (4-0) 4 hours
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. (SCANS 3, 4, 5, 6) Prerequisites: SRGT 1309, SRGT 1405, SRGT 1460 and SRGT 1491. Corequisite: SRGT 2660.

SRGT 1442 Surgical Procedures II [formerly SURG 1613]

(51.0909) (4-0) 4 hours
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment and supplies required for safe patient care. (SCANS 1, 6, 8) Prerequisites: SRGT 1309, SRGT 1405, SRGT 1441, SRGT 1460 and SRGT 1491. Corequisite: SRGT 2660.

SRGT 1460 Clinical I – Surgical/ Operating Room Technician [formerly SURG 1411]

(51.0909) (0-14) 4 hours
A basic type of health professions work-based

instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Lab fee required. (SCANS 3, 4, 5, 6) Prerequisites: BIOL 2401 and BIOL 2402. Corequisites: SRGT 1309, SRGT 1405 and SRGT 1491.

SRGT 1491 Special Topics in Surgical/ Operating Room Techniques

(51.0909) (4-0) 4 hours

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This is a companion course to SRGT 1405 Introduction to Surgical Technology, and expands and amplifies ideas and concepts proffered in the introductory course. In this continuing study of surgical technology, the higher level concepts are covered. (SCANS 1, 3, 5, 9, 10) Prereqisites: BIOL 2401 and BIOL 2402. Corequisites: SRGT 1309, SRGT 1405 and SRGT 1460.

SRGT 2461 Clinical III – Surgical/ Operating Room Technician

[formerly SURG 1615]

(51.0909) (0-12) 4 hours

An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 5, 8, 9, 10) Prerequisites: SRGT 1309, SRGT 1405, SRGT 1441, SRGT 1442, SRGT 1460, SRGT 1491, SRGT 2660 and completion of all academic courses.

SRGT 2660 Clinical II – Surgical/ Operating Room Technician

[formerly SURG 1614]

(51.0909) (0-21) 6 hours

An intermediate type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. (SCANS 4, 5, 6, 8, 10) Prerequisites: SRGT 1309, SRGT 1405, SRGT 1460 and SRGT 1491. Corequisites: SRGT 1441 and SRGT 1442.

Vocational Nursing (see Nursing)

Welding – Industrial Welding Technology –

Faculty: James Mosman, chair.

The associate in applied science degree in industrial welding technology provides the student with sufficient skills 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, layout to interpret engineers' plans and instructions, and to work as a supporting technician with minimum orientation.

While a certificate of technology with an emphasis in welding 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.

Due to the implementation of the Workforce Education Course Manual mandated by the Texas Higher Education Coordinating Board, course prefixes have changed. However, courses previously taken toward degree or certificate requirements are not affected.

Course of Study for Associate in Applied Science Degree
Industrial Welding Technology

	Semester Hrs
General Education Requirements	**17**
COSC 1301 Introduction to Computer Systems	3
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 1332 Structures of College Mathematics I or higher level math	3
PHED (any two one-hour activity courses)	2
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
Technical Core	**15**
BMGT 1301 Supervision (MGMT 1301)	3
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
WLDG 1413 Introduction to Blueprint Reading for Welders (WELD 1403)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
Major Requirements	**35**
WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding (WELD 2402)	4
WLDG 1434 Introduction to Gas Tungsten Arc (TIG) Welding (WELD 2404)	4
WLDG 1435 Introduction to Pipe Welding (WELD 1402)	4
WLDG 1437 Introduction to Metallurgy (WELD 2403)	4
WLDG 2381 Cooperative Education – Welder/Welding Technologist (WELD 2377)	3
WLDG 2406 Intermediate Pipe Welding	4
WLDG 2413 Welding Using Multiple Processes	4
WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis	4
WLDG 2451 Advanced Gas Tungsten Arc (TIG) Welding	4
Total Semester Hours	**67**

Certificates of Technology in Welding Technology

Certificates of technologies are available in the following job-specific fields. See the department chair for course requirements and Permian Basin job opportunities.

Level I certificates are TASP-waived.

Level I – General Welder

	Semester Hrs
WLDG 1413 Introduction to Blueprint Reading for Welders (WELD 1403)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding (WELD 2402)	4
WLDG 1434 Introduction to Gas Tungsten (TIG) Welding (WELD 2404)	4
WLDG 2413 Welding Using Multiple Processes	4
Total Semester Hours	**20**

Level I – Fitter Welder

	Semester Hrs
WLDG 1413 Introduction to Blueprint Reading for Welders (WELD 1403)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
WLDG 1435 Introduction to Pipe Welding (WELD 1402)	4
WLDG 2406 Intermediate Pipe Welding	4
WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis	4
Total Semester Hours	**20**

Level I – Pipe Welder

	Semester Hrs
WLDG 1413 Introduction to Blueprint Reading for Welders (WELD 1403)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding (WELD 2402) or WLDG 1434 Introduction to Gas Tungsten Arc (TIG) Welding (WELD 2404)	4
WLDG 1435 Introduction to Pipe Welding (WELD 1402)	4
WLDG 2406 Intermediate Pipe Welding	4
Total Semester Hours	**20**

Level I – Certified Welder

	Semester Hrs
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding (WELD 2402)	4
WLDG 1434 Introduction to Gas Tungsten Arc (TIG) Welding (WELD 2404)	4
WLDG 1435 Introduction to Pipe Welding (WELD 1402)	4
WLDG 2406 Intermediate Pipe Welding	4
Total Semester Hours	**20**

Level II – Lead Welding Machine Operator

	Semester Hrs
BMGT 1301 Supervision (MGMT 1301)	3
COSC 1301 Introduction to Computer Systems	3
ENGL 1301 Composition and Rhetoric or ENGL 1312 Report Writing	3
MCHN 1438 Machining I – Basic Machine Shop I (MACH 1401)	4
SPCH 1315 Public Speaking or SPCH 1321 Business and Professional Speech	3
WLDG 1413 Introduction to Blueprint Reading for Welders (WELD 1403)	4
WLDG 1421 Introduction to Welding Fundamentals (WELD 1401)	4
WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding (WELD 2402)	4
WLDG 1434 Introduction to Gas Tungsten Arc (TIG) Welding (WELD 2404)	4
WLDG 1435 Introduction to Pipe Welding (WELD 1402)	4
WLDG 1437 Introduction to Metallurgy (WELD 2403)	4
*WLDG 2406 Intermediate Pipe Welding or WLDG 2413 Welding Using Multiple Processes or WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis or WLDG 2451 Advanced Gas Tungsten Arc (TIG) Welding	4
Total Semester Hours	**44**

*See department chair prior to enrollment.

WELDING TECHNOLOGY COURSES

WLDG 1413 Introduction to Blueprint Reading for Welders [formerly WELD 1403]

(48.0508) (2-6) 4 hours

A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description and welding processes, including systems of measurement and industry standards. Interpretation of plans and drawings used by industry. The student will define terms and abbreviations; and identify and explain object views, lines and dimensions. The student will identify, explain and interpret weld symbols; identify structural shapes; demonstrate the proper use of measuring devices; read and interpret blueprints, read welding detail drawings; and calculate dimensions and material. Students will be responsible for choosing the proper procedures, tools and equipment to perform assigned actions and be able to explain their selections. Lab fee required. (SCANS 1, 3, 6, 8, 9) Prerequisite: None.

WLDG 1421 Introduction to Welding Fundamentals [formerly WELD 1401]

(48.0508) (2-6) 4 hours

An introduction to the fundamentals of equipment used in the oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy. The student will demonstrate safety procedures associated with oxy-fuel and arc process; perform basic welds using oxy-fuel and arc welding equipment; and identify ferrous and nonferrous metals. 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. Lab fee required. (SCANS 5, 6, 8, 9, 10, 11) Prerequisite: None.

WLDG 1430 Introduction to Gas Metal Arc (MIG) Welding
[formerly WELD 2402]
(48.0508) (2-6) 4 hours
A study of the principles of gas metal arc welding, setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs. The student will describe welding positions with various joint designs on plate; describe safety rules and equipment used; describe the efforts of welding parameters in GMAW; and understand safety rules, equipment used and testing performed by visual inspection. Students will weld various types of structural material and diagnose welding problems and perform visual inspections. Competencies include advanced skills using gas metal arc welding (GMAW) on steel and aluminum. 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 and FCAW. Lab fee required. (SCANS 8, 9) Prerequisite or corequisite: WLDG 1421 or consent of department chair.

WLDG 1434 Introduction to Gas Tungsten Arc (TIG) Welding
[formerly WELD 2404]
(48.0508) (2-6) 4 hours
An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment and safe use of tools and equipment. Welding instruction in various positions on joint designs. The student will describe various joint designs; describe safety rules and equipment; and describe the effects of welding parameters in GTAW; and will weld various structural materials. Competencies include advanced skills using gas tungsten arc welding (GTAW) technology. Presents advantages and disadvantages of different shield and purge gases. Welds tested by AWS standards. Students will learn problem-solving techniques specific to GTAW. Lab fee required. (SCANS 8, 9) Prerequisite or corequisite: WLDG 1421 or consent of the department chair.

WLDG 1435 Introduction to Pipe Welding
[formerly WELD 1402]
(48.0508) (2-6) 4 hours
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes. The student will describe equipment and required pipe preparation and perform 1G and 2G welds using various electrodes. Students will be required to evaluate their performance abilities to troubleshoot potential problems. Students will learn to decipher coding system for AWS and proper use of available materials and equipment. Lab fee required. (SCANS 4, 6, 7, 8, 9) Prerequisite or corequisite: WLDG 1421 or consent of department chair.

WLDG 1437 Introduction to Metallurgy
[formerly WELD 2403]
(48.0508) (2-6) 4 hours
A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes, and mechanical properties of metal including hardness, machinability and ductility. The student will describe technical terms used in the various phases of metallurgy, from early history to classification of steel. The student will discuss ferrous and nonferrous metals and how they are processed and used in industry; and describe mechanical and physical properties, surface treatment and heat treatment of metals. Lab fee required. (SCANS 1, 2, 6, 8) Prerequisite: None.

WLDG 2381 Cooperative Education – Welder/Welding Technologist
[formerly WELD 2377]
(48.0508) (1-20) 3 hours
An advanced course with the lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. As outlined in the learning plan, the student will master the theory, concept and skills involving the tools, materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environmental and legal systems associated with the particular occupation and the business/industry; demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable technical language of the occupation and the business or industry. 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 department chair.

WLDG 2406 Intermediate Pipe Welding [formerly WELD 2401]

(48.0508) (2-6) 4 hours

A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 1G, 2G, 5G and 6G using various electrodes. Topics covered include electrode selection, equipment setup, safe shop practices, plus ferrous and nonferrous materials. The student will describe equipment and required pipe preparation. Emphasizes technology of welding carbon steel pipe with LH 7018 and stainless electrodes. Welds tested by AWS standards. This is a capstone course for the Pipe Welder Level I Certificate, Certified Welder Level I Certificate, and the Lead Welding Machine Operator Level II Certificate. Lab fee required. (SCANS 1, 3, 4, 5, 8) Prerequisites: WLDG 1421 and WLDG 1435 and consent of department chair.

WLDG 2413 Welding Using Multiple Processes

(48.0508) (2-6) 4 hours

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW) or any other approved welding process. The student will identify proper safety equipment and tools and identify and select the proper welding process for a given application. The student will demonstrate skills training using more than one approved welding process; demonstrate ability to analyze situations and make proper decisions using skills as taught; and select the most economical and practical welding process for the given task. This is a capstone course for the General Welder Level I Certificate and the Lead Welding Machine Operator Level II Certificate. Lab fee required. (SCANS 1, 3, 4, 5, 8, 9) Prerequisites or corequisites: WLDG 1413, WLDG 1421, WLDG 1430, WLDG 1434 and consent of department chair.

WLDG 2431 Advanced Blueprint Interpretation and Cost Analysis

(48.0508) (2-6) 4 hours

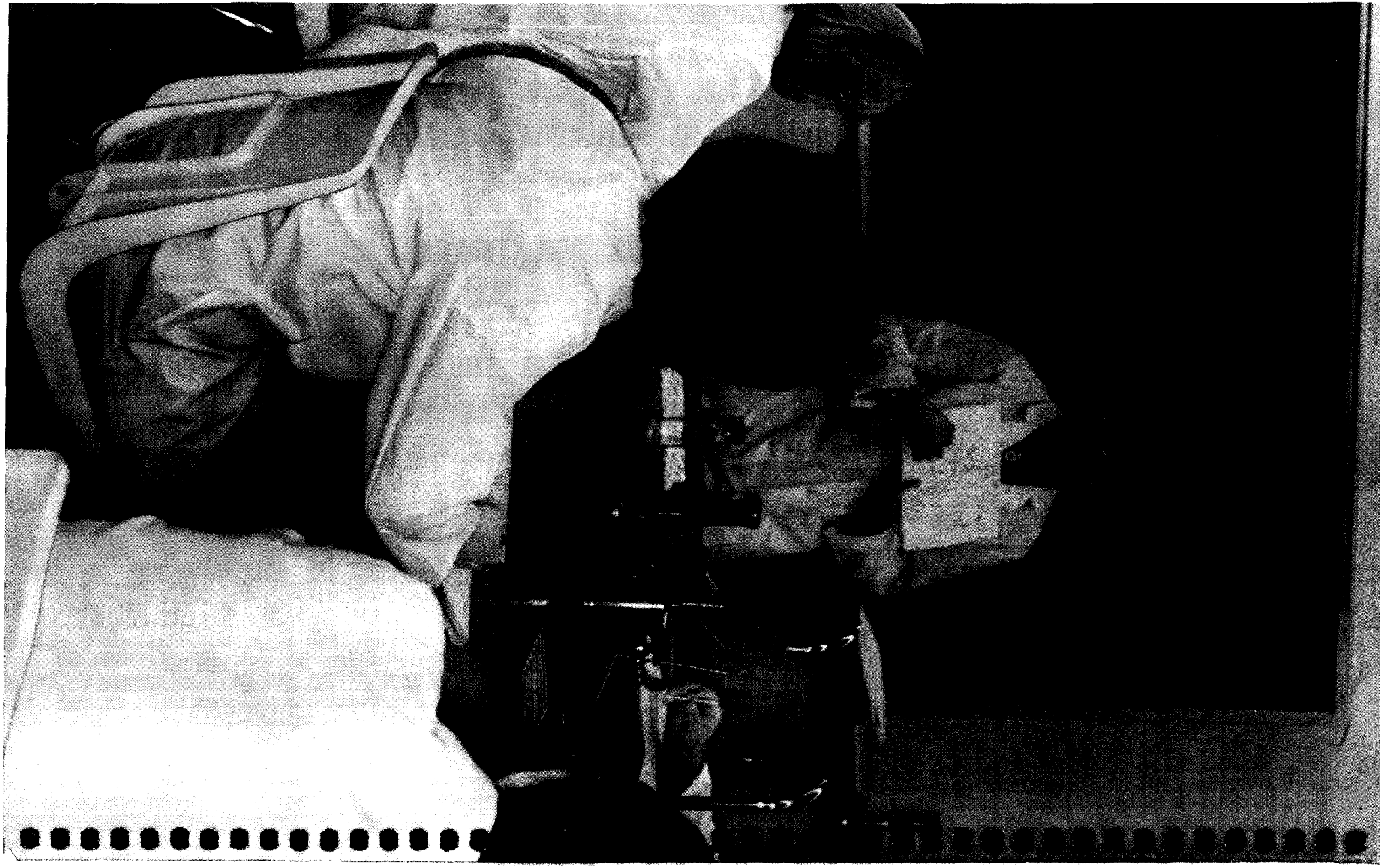
A continuation of the Blueprint for Welders course. Emphasis will be placed on inspection, cost analysis, and estimating, including instruction in basic drafting skills. The student will use terms, abbreviations, and weld symbols to produce shop drawings or blueprints and will use mathematical procedures to solve problems, and estimate construction costs and materials. This is a capstone course for the Fitter Welder Level I Certificate and the Lead Welding Machine Operator Level II Certificate. Lab fee required. (SCANS 1, 2, 3, 4, 5, 8, 9) Prerequisites: WLDG 1413 and consent of department chair.

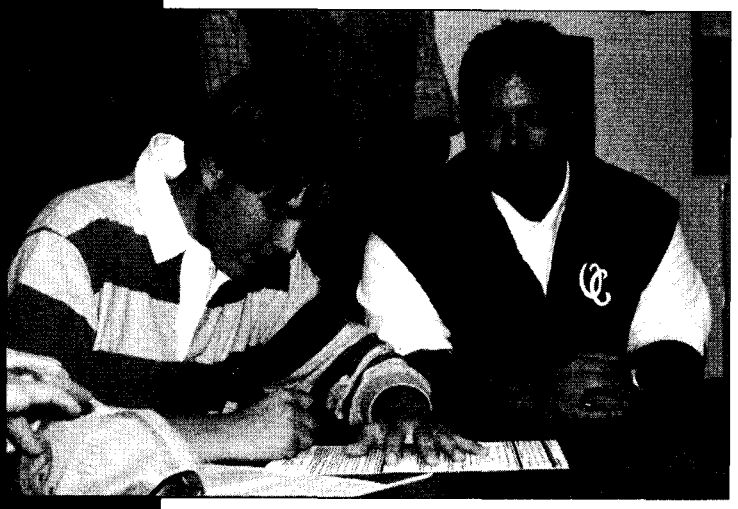
WLDG 2451 Advanced Gas Tungsten Arc (TIG) Welding

(48.0508) (2-6) 4 hours

Advanced topics in GTAW welding, including welding in various positions and directions. (Positions include 1G, 2G, 5G, and 6G.) The student will describe and demonstrate safety rules and equipment used; and the effects of welding parameters in GTAW. The student will weld various joint designs; diagnose welding problems; and perform visual inspections. Welds tested by AWS standards. This is a capstone course for the Lead Welding Machine Operator Level II Certificate. Lab fee required. (SCANS 8, 9) Prerequisites: WLDG 1434 and consent of department chair.

X-Ray Technology (see Radiologic Technology)





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Newswriter/Copywriter

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Coordinator of Student Activities

STUDENT RECRUITING

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Coordinator of Student Recruiting

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To Be Named
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Director of Student Development, Testing and Title V

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Skills Specialist, Title V

Laci Box, B.S., M.A.
Intervention Specialist, Title V

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Director of Student Financial Services

Leslie Neiman, B.S.
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STUDENT LEARNING ASSISTANCE CENTER

Claudia Philpot, B.A., M.A.
Coordinator, Activity Director, Title V

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Director of Student Support Services

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Assistant

KOCV-FM/TV PUBLIC BROADCASTING

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To Be Named
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Radio Station Manager

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Computer Operator

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April Vanecek, B.S. *Webmaster*

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Research Assistant

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Custodial Supervisor

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Electrical, HVAC, Plumbing Supervisor

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Nursing, Odessa College Campus ..... To Be Named
Nursing, Andrews Vocational Program ..... Patricia Ann Bayless
Nursing, Monahans Vocational Program ..... Patricia Ann Bayless
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Sociology ..... Jane Hellinghausen
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Surgical Technology ..... Leola Rutledge
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Faculty

Danny Bailey
Department Chair and Assistant Professor of Electrical/Electronics Technology, B.S., Wayland Baptist University; M.A., University of Texas of the Permian Basin

Galen Ballard
Associate Professor of Machining Technology, A.A.S., Odessa College; B.S., Devry Institute

Patricia Ann Bayless
Department Chair and Assistant Professor of Vocational Nursing, Andrews and Monahans, A.S.N., University of Maine

Keith Blackwill
Department Chair of Physical Education and Women's Track Coach, B.S., Fort Hays State University

Teresa Blakeney
Instructor of Vocational Nursing at Andrews, CRT, Odessa College

Marylin M. Boomer
Instructor of Nursing, B.S.N., Texas Tech University Health Sciences Center; M.S.N., University of Texas at El Paso

Debra Borgan
Instructor of Clinical Lab Science, A.A., Midland College; B.S., University of Texas of the Permian Basin

John D. Bray
Medical Director of Respiratory Therapy Program, B.S., M.D., University of Miami

George W. Brewer
Associate Professor of Mathematics, B.S., Southeastern Oklahoma State University; M.S., Oklahoma State University

Linda D. Brown
Instructor of History, B.A., Southern Methodist University; M.A., University of Kent at Canterbury, England

Timi Brown
Women's Basketball Coach, B.A., University of Arizona; M.A., University of Northern Colorado

Arthur Brownell
Associate Professor of Psychology, B.S., M.Ed., Cornell University; Ph.D., University of Oregon

J. Paul Burton
Instructor of Biology, B.S., Abilene Christian University; M.S., Sul Ross State University

Weldon Butler
Medical Director of Emergency Medical Technology, B.S., Eastern New Mexico University; M.D., University of New Mexico

Gene Calvert
Instructor of Computer Information Systems, B.S., University of Texas of the Permian Basin

James Camp
Assistant Professor of Mathematics, B.A., M.S., University of North Texas

Karin Carlson
Assistant Professor of Physical Education, B.S., University of North Texas; M.A., University of Texas of the Permian Basin

Diane Carrasco
Instructor of Computer Information Systems, B.S., University of Texas of the Permian Basin

J. Deanne Causey
Department Chair and Instructor of Speech, B.A., Texas A&M University; M.A., Texas Tech University

Kris Challapalli
Director of Medical Laboratory Technology, B.S., M.D., Guntur Medical College, A.P. India

C. Paul Chavez
Golf Coach and Instructor of Physical Education, B.S., University of Texas of the Permian Basin

Lonnie Clark
Associate Professor of Music, B.M.E., West Texas State University; M.A., West Texas State University

Raymond L. Cone
Department Chair and Assistant Professor of Computer Information Systems, Computer Network and Information Technology, and Computer Science, B.S., M.B.A., Eastern New Mexico University

Chester Cooper
Professor of Biology, D.C., Parker College of Chiropractic

Eloisa Corbell
Medical Laboratory Technology Paraprofessional, A.A.S., Odessa College

Judith A. Cornes
Professor of English, B.A., M.A., University of Missouri; Ph.D., Southern Illinois University

Laura A. Cralle
Associate Professor of Nursing, B.S.N., Texas Tech University; M.S.N., University of Texas at El Paso

Stacy S. Crownover
Coordinator of Vocational Nursing and Instructor of Vocational Nursing, Andrews, A.A.S., Amarillo College

S. Lynn Dammann
Department Chair and Associate Professor of Physical Therapist Assistant, B.S., University of Texas Medical Branch, School of Allied Health Sciences – Galveston

Amanda Darling
Instructor of Nursing, A.A.S., Midland College; B.S.N., Texas Tech University Health Science Center

Dee Ann Decker
Instructor of Nursing, A.S.N., Amarillo College; B.S.N., Texas A&M University; M.S.N., University of Texas at El Paso

Kristen Deramus
Instructor of Biology, B.S., M.S., University of Texas of the Permian Basin

Brian K. Dille
Professor of Government, B.A., Illinois State University; M.A., University of Texas at Austin; Ed.D., Texas Tech University

Billie B. Duncan
Associate Professor of Office Systems Technology, A.A.S., Odessa College; B.S., M.Ed., Sul Ross State University

Melissa Elliott
Instructor of Computer Information Systems, Computer Network and Information Technology, B.B.A., West Texas A&M University

Theresa Evans
Instructor of Developmental Mathematics, B.S., University of Texas of the Permian Basin

Jack R. Felts
Associate Professor of Business Administration and Mathematics, B.B.A., M.B.A., University of Texas of the Permian Basin

James M. Fields
Professor of Mathematics, B.S., West Texas State University; M.S., Michigan State University; Ed.D., Nova University

Robert Glen Findley
Assistant Professor of Government and History, B.A., Texas Tech University; M.A., University of Texas of the Permian Basin

Beverly Forsyth
Professor of English, B.S., M.A., University of Texas of the Permian Basin; Ph.D., Union Institute

James Gaddy
Instructor of Government, B.A., University of Texas of the Permian Basin; M.A., Southwest Texas State University

Steven Goff
Department Chair of Arts, Mass Communication and Photography and Professor of Photography, B.F.A., M.F.A., Ohio University

Terry Gouley
Assistant Professor of Culinary Arts, A.A.S., Odessa College

Filmore Guinn
Instructor of Computer Science and Computer Information Systems, A.A., Odessa College; B.S., University of Texas of the Permian Basin

Nikki Handley
Coordinator and Instructor of Developmental Mathematics, B.S., Angelo State University; M.S., University of Texas of the Permian Basin

Mary Hanson
Assistant Professor of Child and Parent Development, B.S., Angelo State University; M.A., University of Texas of the Permian Basin

Thomas J. Heiting
Professor of History and Government, B.A., Marquette University; M.A., New Mexico Highlands University; Ph.D., Texas Tech University

Jane Hellinghausen
Department Chair of Psychology and Sociology and Instructor of Sociology, B.A., M.A., Texas Tech University

Rebecca Hennig
Instructor of Biology, B.S., Tarleton State University; M.S., Texas Tech University

Lou Ann Hitt
Professor of Cosmetology, B.S.O.E., Wayland Baptist College; M.S., East Texas State University

Elizabeth Hodges
Instructor of Vocational Nursing at Monahans, B.S.N., Platt College

Patricia L. Hodges
Instructor of Physical Education and Community Recreation, B.F.A., M.F.A., Southern Methodist University

Kathryn Hoppe
Department Chair and Professor of Music, B.Mus., M.Mus., Indiana University; Ph.D., University of Texas at Austin

Lucinda Hurlbut
Department Chair and Instructor of Child and Parent Development, B.S., Texas Tech University

Nichole Jackson
Instructor of Chemistry, B.S., M.S., Texas Tech University

Wayne Johnson
Assistant Professor of English, B.A., East Central Oklahoma; M.A., Texas Tech University

A. Sue Jones
Instructor of Management, B.B.A., University of Texas of the Permian Basin

James P. Jordan
Department Chair and Assistant Professor of Human Services, B.A., Angelo State University; M.P.A., Angelo State University

Mark Jordan
Professor of English, B.A., University of Texas at Austin; M.A., University of Houston; Ph.D., Texas Tech University

Kathryn Keen
Instructor of English, B.A., M.A., University of Texas of the Permian Basin

Jeff Kelly
Head Athletic Trainer and Instructor of Physical Education, B.S., Abilene Christian University; M.Ed., Sul Ross State University

Dick K. Kennedy
Professor of Economics and Government, B.S., M.A., West Texas State University; Ed.D., Nova University

Ashok Khosla
Professor of Physics, B.S., Delhi University; M.S., Purdue University; Ph.D., Rensselaer Polytechnic Institute

Mary Kipple
Assistant Professor of Nursing, A.S., New Mexico Junior College; B.S.N., West Texas State University; M.S.N., University of Texas at El Paso

Carol Kirk
Associate Professor of Legal Assistant, B.A., University of Texas at Austin; J.D., Texas Tech University

Daryl Lane
Professor of English, B.A., University of San Francisco; M.A., University of Wisconsin at Milwaukee; Ph.D., University of New Mexico

Carolyn Sue Leach
Department Chair and Associate Professor of Radiologic Technology, A.A.S., Odessa College; B.S., Midwestern University; (A.A.R.T.)

Peter Lewis
Department Chair and Associate Professor of Culinary Arts, Diploma in Culinary Arts, Culinary Institute of America; B.A., University of Maryland; M.Ed., Sam Houston State University

Sidney Lyle
Professor of Law Enforcement/ Criminal Justice, A.A., Odessa College; B.A., University of Texas of the Permian Basin; M.A., Liberty University

Peggy Manning
Associate Professor of Physical Therapist Assistant, B.S., University of North Carolina

LeeDon Martin
Department Chair and Assistant Professor of Emergency Medical Technology/Fire Technology, A.A.S., Odessa College

Lamont Mason
Assistant Baseball Coach and Instructor of Physical Education, B.S., Lynn University

Eva M. Mauldin
Assistant Professor of Nursing, B.S.N., Northwestern State University; M.A., University of Texas of the Permian Basin

Trina Maurer
Instructor of Computer Science, Computer Info Systems, Computer Network and Information Technology, B.B.A., University of Texas at Austin

G. Brent McAfee
Department Chair of Chemistry, Geology and Physics and Associate Professor of Geology, A.A., Odessa College; B.S., M.A., Sul Ross State University

James E. McCutcheon
Department Chair of Automotive/Diesel Technology and Associate Professor of Diesel Technology, B.S.O.E., Wayland Baptist University

James E. McKown
Department Chair and Associate Professor of Law Enforcement/Criminal Justice, A.A., Eastern Arizona College

Rhonda McMurrian
Instructor of Respiratory Care, A.A.S., Odessa College

James McPherson
Assistant Professor of Drafting Technology and Engineering, B.S., M.S., East Texas State University

P. Gail Meagher
Assistant Professor of Nursing, A.S.N., B.S.N., New Mexico State University; M.S.N., University of Texas at El Paso

Brad S. Miller
Associate Professor of Law Enforcement/Criminal Justice, A.A., Odessa College; B.A., University of Texas of the Permian Basin; M.Ed., Sul Ross State University

James Mosman
Department Chair of Drafting, Maintenance, Machining and Welding Technologies and Instructor of Welding, A.A.S., Odessa College

David Mulry
Professor of English, B.A., Middlesex Polytechnic, London, England; Ph.D., University of Kent, Canterbury, England

J. Mike Myers
Professor of History and Government, B.A., M.A., Hardin Simmons University; Ph.D., Texas Christian University

Carrie Nanson
Associate Professor of Radiologic Technology, A.A.S., Odessa College; B.S.R.T., M.S.R.S., Midwestern State University

Dan Neagle
Associate Professor of Business Administration, B.A., University of Northern Iowa; M.Ed., University of Texas at Tyler; M.S., East Texas State University; C.P.A.

William Neff
Instructor of Speech, B.A., M.A., California State University at Fresno

Connie Nichols
Instructor of Management, B.B.A., Texas Tech University

Orlando A. Ontiveroz
Men's Basketball Coach and Instructor of Physical Education, B.S., University of Texas of the Permian Basin

Tammy Patni
Department Chair and Instructor of Reading, B.S., Texas Tech University; M.A., University of Texas of the Permian Basin

Vicki Dublin Patrick
Instructor of Speech, B.F.A., M.F.A., Texas Christian University

Barry Phillips
Professor of Art, B.S., M.Ed., Texas Tech University

Barry Phillips III
Assistant Professor of Art, B.A., Texas Tech University; M.F.A., East Texas State University

Tana Pipes
Physical Therapy Assistant Paraprofessional, A.A.S., Odessa College

Robert B. Porter
Professor of History and Sociology, B.S., M.A., Eastern New Mexico University

Wende Ramos
Instructor of Office Systems, A.A., Odessa College; B.B.A., University of Texas of the Permian Basin

Susan Ray
Department Chair and Associate Professor of Clinical Lab Science, B.S., University of Arizona; M.S., University of Texas of the Permian Basin

Lynn Reese
Assistant Professor of Occupational Safety and Health Technology, B.S., University of Texas of the Permian Basin

Charlene Reeves
Assistant Professor of Nursing, A.S., Citrus College; A.A., College of the Desert; B.S.N., M.S.N., West Texas A&M University

Ivanov Reyez
Assistant Professor of English, B.A., Texas A&I University; M.A., University of Texas of the Permian Basin

Patricia Ritchey
Assistant Professor of Nursing, A.A.S., Odessa College; B.S.N., M.S.N., University of Texas at Arlington

James D. Roberts
Department Chair of Business Administration, Management, Occupational Safety and Health Technology and Petroleum Technology and Associate Professor of Occupational Safety and Health Technology and Petroleum Technology, A.S., Grayson County College; B.S., Texas A&M University

Robbie Rogers
Assistant Professor of Nursing, R.N., A.A.S., Odessa College; B.S.N., West Texas State University; M.A., University of Texas of the Permian Basin

Teresa Rogers
Chemistry Paraprofessional, B.S., University of Texas of the Permian Basin

Ann Rusnak
Instructor of Spanish, B.A., St. Mary's College; M.A., Middlebury College

William Rutherford
Department Chair of Social Sciences and Professor of Government and Economics, B.A., Howard Payne College; M.A., University of Texas of the Permian Basin; Ed.D., Texas Tech University

Leola K. Rutledge
Department Chair and Associate Professor of Surgical Technology, A.A.S., Odessa College; B.S.N., Texas Tech University Health Sciences Center

Mona R. Sandlin
Instructor of Reading, B.S., Texas Tech University

Geoffrey J. Schwende
Associate Professor of Law Enforcement, B.S., John Jay College of Criminal Justice; M.S., Sul Ross State University

James Sheehan
Medical Director of Radiologic Technology, B.A., Loyola

College, Montreal, Quebec, Canada; M.D., McGill University, Montreal, Quebec, Canada

Mitch Slusher
Associate Professor of Computer Science and Computer Information Systems, B.S., University of Texas of the Permian Basin; M.S., Texas A&M University; M.B.A., University of Texas of the Permian Basin

Donna C. Smith
Department Chair of English and Foreign Languages and Professor of English, B.A., Texas Tech University; M.A., University of Texas at Austin; Ph.D., Texas Tech University

Michael Sodd
Instructor of Cosmetology, A.A.S., Odessa College

Steve Sofge
Department Chair and Instructor of Biology, A.S., Odessa College; B.S., Texas Tech University; M.S., University of Texas of the Permian Basin

Stan Stallings
Assistant Professor of Heating, Air Conditioning and Maintenance Technologies, A.A.S., Odessa College

Sylvia Stephens
Department Chair and Associate Professor of Cosmetology, A.A.S., Odessa College; B.B.A., University of Texas of the Permian Basin

Nancy S. Stewart
Department Chair of Legal Assistant and Office Systems Technology and Instructor of Office Systems Technology, B.B.A., Baylor University

Barbara Stone
Instructor of Nursing, B.S.N., M.S.N., University of Phoenix

Glynna Strait
Professor of Mathematics, B.S., Sul Ross State University; M.S., Texas Tech University; Ed.D., Texas Tech University

Margaret Street
Professor of Mathematics, B.S., M.A., Ed. D., Texas Tech University

Jacquelyn Sullivan
Department Chair and Instructor of Respiratory Care, A.A.S., Odessa College

Linda Sullivan
Associate Professor of Cosmetology, A.A.S., Odessa College; B.S.O.E., Wayland Baptist University

Charles E. Sweatt
Department Chair of Engineering & Mathematics and Professor of Mathematics, B.S., M.S., West Texas State University; Ed.D., Nova University

Randy Talley
Choral Director and Associate Professor of Music, B.M.E., M.M., West Texas State University

Brandon Tate
Assistant Professor of Emergency Medical and Fire Technology, A.A.S., Odessa College; B.S., Regis University

Tamara Thompson
Assistant Women's Basketball Coach and Instructor of Physical Education, A.A., Monterey Peninsula College

Theresa Vaughn
Instructor of Cosmetology, A.S., Midland College

Brandy Venable
Assistant Women's Track Coach and Instructor of Physical Education, B.S., M.S., Purdue University

Jim Watkins
Director of Graham Center, Rodeo Coach and Instructor of Physical Education, B.S., Sul Ross State University

Carla Wells
Assistant Professor of Psychology, B.S., University of Texas at Austin; M.S., Texas Woman's University

Charlotte Whitaker
Professor of Music, B.M.E., M.M.E., Ph.D., Texas Tech University

Michael White
Professor of English, B.A., M.A.T., Angelo State University; Ph.D., University of North Texas

Virginia Lynn Whitson
Assistant Professor of English, B.A., M.A., University of Texas of the Permian Basin

Pamela R. Williamson
Instructor of Reading, B.A., University of Texas at El Paso; M.A., University of Texas of the Permian Basin

Joseph A. Willis
Instructor of Speech, B.A., Eastern New Mexico University; M.A., Texas Tech University

Lori F. Wingate
Assistant Professor of Nursing, A.S., Odessa College; B.S.N., Texas Tech University Health Sciences Center; M.S.N., University of Texas at El Paso

Rick Zimmerman
Baseball Coach and Instructor of Physical Education, B.S., M.S., Fort Hays, Kansas State College

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ODESSA COLLEGE

Admissions Office
201 W. University
Odessa, Texas 79764
(915) 335-6432

APPLICATION FOR ADMISSION

INSTRUCTIONS: Please print or type. Failure to completely fill out the application could result in a delay in your admission. All documents submitted to the college become part of the official files and cannot be returned.

Semester for which you are applying ❒ Fall ❒ Spring ❒ Midwinter ❒ May Mid-Semester ❒ Summer I ❒ Summer II

STUDENT BACKGROUND

Full legal name _____
last first middle initial prior names

Social security number ___ – ___ – ___ Email _____

Local address _____
street address city state zip county

Permanent address _____
P.O. Box or street address city state zip county

How long have you lived at your permanent address? ___ years ___ months Phone (___) _____ (___) _____
local work

Birth date _____ Age_____ Birthplace _____ Sex: ❒ M ❒ F
month/day/year city & state

Ethnic Background (These items are used to satisfy state/federal reporting requirements and do not affect the admission decision.)

(1) ❒ White – Non-Hispanic (2) ❒ Black – Non-Hispanic (3) ❒ Hispanic
(4) ❒ Asian or Pacific Islander (5) ❒ American Indian or Alaskan Native (6) ❒ Non-Resident

EDUCATION INFORMATION

What is your intended field of study (major) at Odessa College? _____

Last high school attended _____
name of school city county state

Did you graduate from high school? ❒ no ❒ yes If yes, date of graduation _____
month/year

If you did not graduate, do you have a GED? ❒ no ❒ yes If yes, date GED received _____
month/year

Where was GED taken? _____
city & state

Are you currently in high school? ❒ no ❒ yes If yes, anticipated date of graduation _____
month/year

If you are still in high school, are you attending as ❒ concurrent enrollment or ❒ early admission?

Concurrent enrollment allows the student to enroll in a class to earn both high school and college credit.
Early admission allows the student to enroll in a class to earn college credit only.
Both programs require a completed form from the high school.

If you have attended any other colleges or universities, please list them below. List the most recently attended first. Failure to disclose colleges may result in non-admission or dismissal if enrolled. An official transcript that includes grades from the last semester in attendance is required from all institutions previously attended.

COLLEGE/UNIVERSITY NAME	CITY, STATE	DATE ATTENDED	DEGREE RECEIVED

Total semester hours attempted at all colleges/universities ❒ 0-29 hrs ❒ 30-59 hrs ❒ 60+ hrs

Official TASP scores or proof of exemption must be provided prior to enrolling in any college level semester hours unless the student is enrolled in a TASP-waived certificate program. Completion of this application serves as authorization to access your scores.

❒ I have taken TASP. ❒ I am exempt from TASP due to college credit before Fall 1989.
❒ I am exempt from TASP due to: ❒ My high school GPA ❒ TAAS ❒ SAT ❒ ACT scores. ❒ I have not taken TASP.

Rev. 5-02

RESIDENCY

Are you a United States citizen or do you hold Permanent Residence status (valid I-551, "green card") for the U.S.? ❒ no ❒ yes

If you are a permanent resident, date permanent resident card issued: _____ (Attach copy of both sides of card.)

If you are not a permanent resident, has an I-130 or I-140 petition been filed with INS? ❒ no ❒ yes, attach copy of receipt.

Are you a foreign national here on a visa? ❒ no ❒ yes If yes, what type of visa do you have? _____

If you are not a citizen or permanent resident, did you graduate from high school or receive a GED in Texas? ❒ no ❒ yes

If yes, did you live here for the 3 consecutive years before the date of your graduation or receipt of your GED? ❒ no ❒ yes

If yes, did you take any college hours in Texas before the Fall 2001 semester? ❒ no ❒ yes

Are you a Texas resident? ❒ no, skip to Oath of Residency. ❒ yes

Upon whom are you basing your claim of residency? ❒ self (answer #1 below) ❒ parent or legal guardian (answer #2 below)

If you are 17 years or younger or a dependent of your parent or a legal guardian for federal tax purposes, base residency on your parent or legal guardian. If you have a legal guardian, court-appointed guardianship papers must be provided. Power of attorney does not give guardian status.

1. If your claim or residence status is based upon self ...

Do you currently live in Texas? ❒ no ❒ yes If yes, how long have you resided in Texas? _____ Years & Months

If you came here within the past 5 years, why did you move to Texas? _____

❒ education ❒ employment ❒ military assignment ❒ other _____

Are you currently assigned to military duty in Texas? ❒ no ❒ yes If yes, is Texas your home of record? ❒ no ❒ yes

Have you lived in Ector County for the past 6 months? ❒ no ❒ yes If no, how long have you lived here: _____ Years & Months

2. If your claim for residence status is based upon a parent or legal guardian ...

Name of person upon whom claim is based and the relationship to you. _____

Does this person currently live in Texas? ❒ no ❒ yes If yes, how long has he/she resided in Texas? _____ Years & Months

If this person came here within the past 5 years, why did he/she move to Texas?

❒ education ❒ employment ❒ military assignment ❒ other _____

Is he/she currently assigned to military duty in Texas? ❒ no ❒ yes If yes, is Texas the home of record? ❒ no ❒ yes

Is this person a U.S. citizen or permanent resident? ❒ no ❒ yes (If resident, attach copy of both sides of card.)

If no, has INS allowed him/her to file the I-485? ❒ no ❒ yes, attach copy of I-485 receipt.

Is this person a foreign national here on a visa? ❒ no ❒ yes If yes, what type of visa? _____

Has this person lived in Ector County for the past 6 months? ❒ no ❒ yes

If no, how long has he/she lived in Ector County: _____ Months

Has this person claimed you as a dependent for U.S. federal income tax purposes for the tax year preceding your registration? ❒ no ❒ yes

Will this person claim you as a dependent for U.S. federal income tax purposes for the current tax year? ❒ no ❒ yes

OATH OF RESIDENCY

I understand that information submitted herein will be relied upon by college officials to determine my status for admission and residency eligibility. I authorize the college to verify the information I have provided. I agree to notify the proper officials of the institution of any change 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 initiation of disciplinary action. I am aware of the meningitis information presented in the Odessa College catalog and/or other sources.

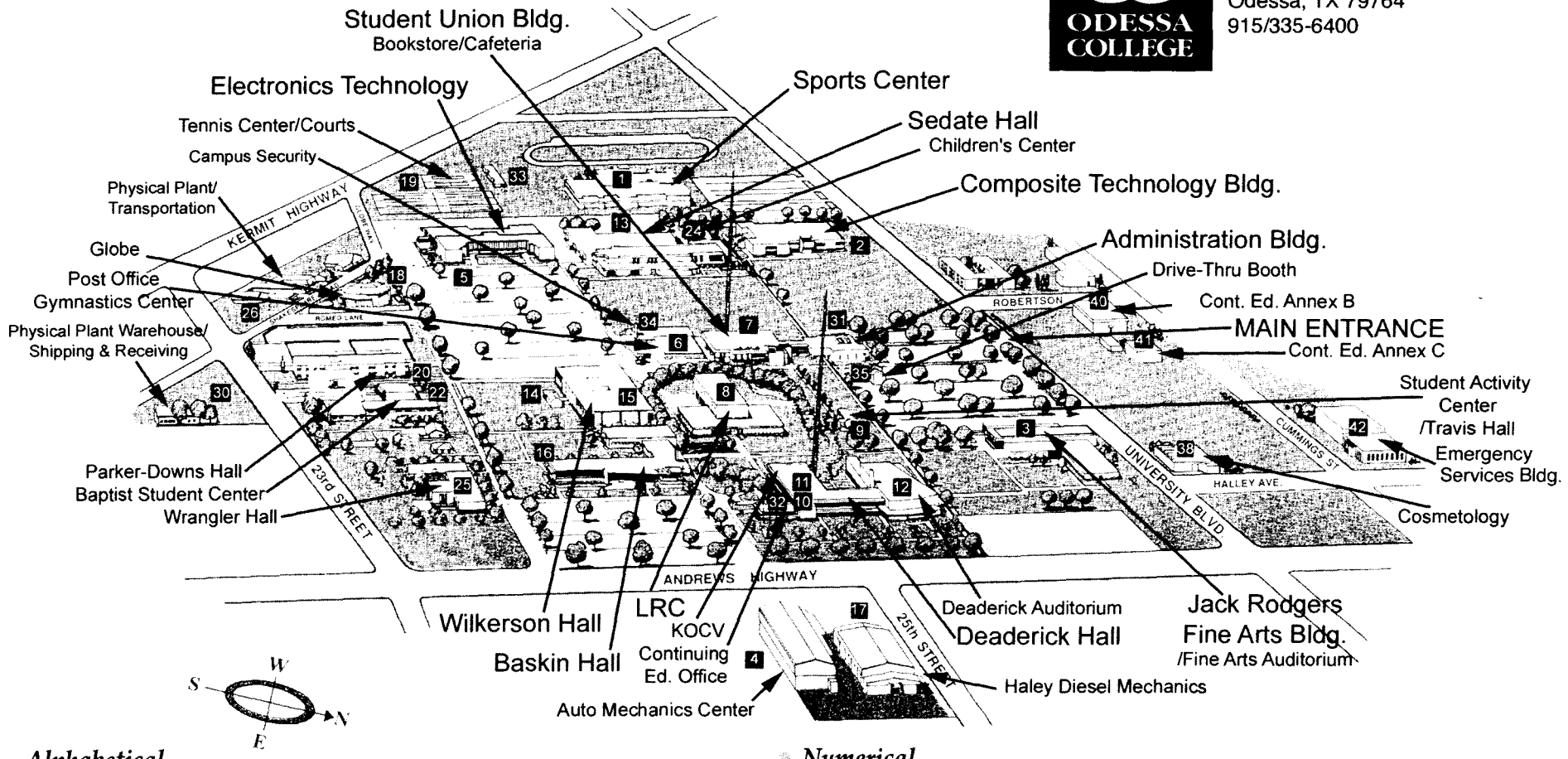
Signature _____ Date _____

FOR OFFICE USE

Admitted? ❒ no ❒ yes Remarks: _____

Campus Map

ODESSA COLLEGE
201 W. University
Odessa, TX 79764
915/335-6400



Alphabetical

Administrative Wing (31)
Auto Mechanics Center (4)
Baptist Student Center (22)
Baskin Hall (16)
Campus Security (34)
Children's Center (24)
Composite Technology Building (2)
Continuing Education Drive-Thru Registration Booth (35)
Continuing Education Annex B (40)
Continuing Education Annex C (41)
Continuing Education Office (32)
Cosmetology Bldg. (38)
Deaderick Auditorium (12)
Deaderick Hall (11)
Electronics Technology Building (5)
Emergency Services Building (42)
The Globe Theater/Anne Hathaway Cottage (18)
Greenhouse (14)
Gymnasium/Gymnastics Center (6)
Haley Diesel Mechanics Training Center (17)
Jack Rodgers Fine Arts Center (3)
KOCV TV/FM (10)
Learning Resources Center (8)
Parker-Downs Hall (20)
Physical Plant Warehouse/ Shipping & Receiving (30)
Physical Plant/Transportation (26)
Sedate Hall (13)
Sports Center (1)
Student Activity Ctr/Travis Hall (9)
Student Union Building/ Bookstore/Cafeteria (7)
Tennis Center (33)
Tennis Courts (19)
Wilkerson Hall (15)
Wrangler Hall (25)

Numerical

1. Sports Center
2. Composite Technology Bldg.
3. Jack Rodgers Fine Arts Ctr.
4. Auto Mechanics Center
5. Electronics Technology Bldg.
6. Gymnasium/Gymnastics Ctr.
7. Student Union Building/ Bookstore/Cafeteria
8. Learning Resources Center
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17. Haley Diesel Mechanics Training Center
18. The Globe Theater/Anne Hathaway Cottage
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20. Parker-Downs Hall
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38. Cosmetology Bldg.
40. Continuing Education Annex B
41. Continuing Education Annex C
42. Emergency Services Building

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Odessa, T

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