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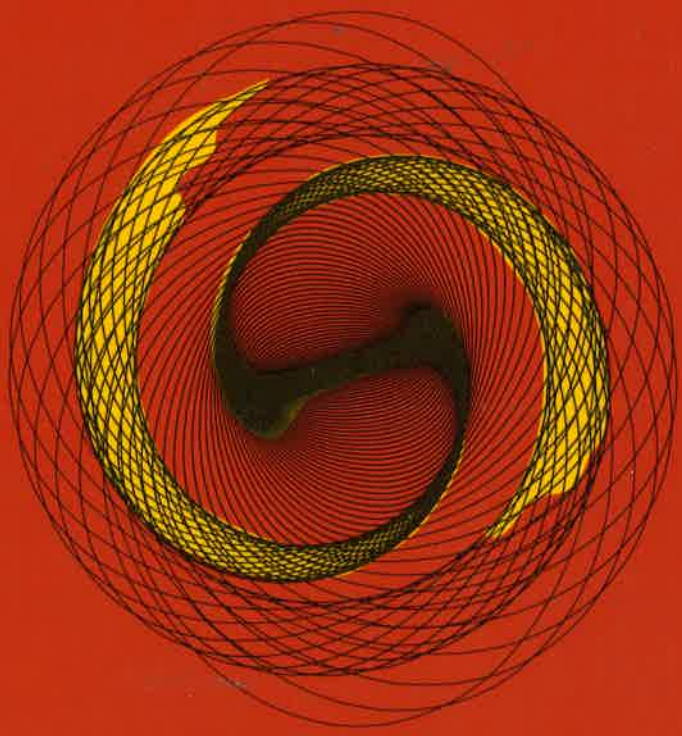

Odessa College Bulletin 80~81

Contents

Volume Thirty-four Spring 1980

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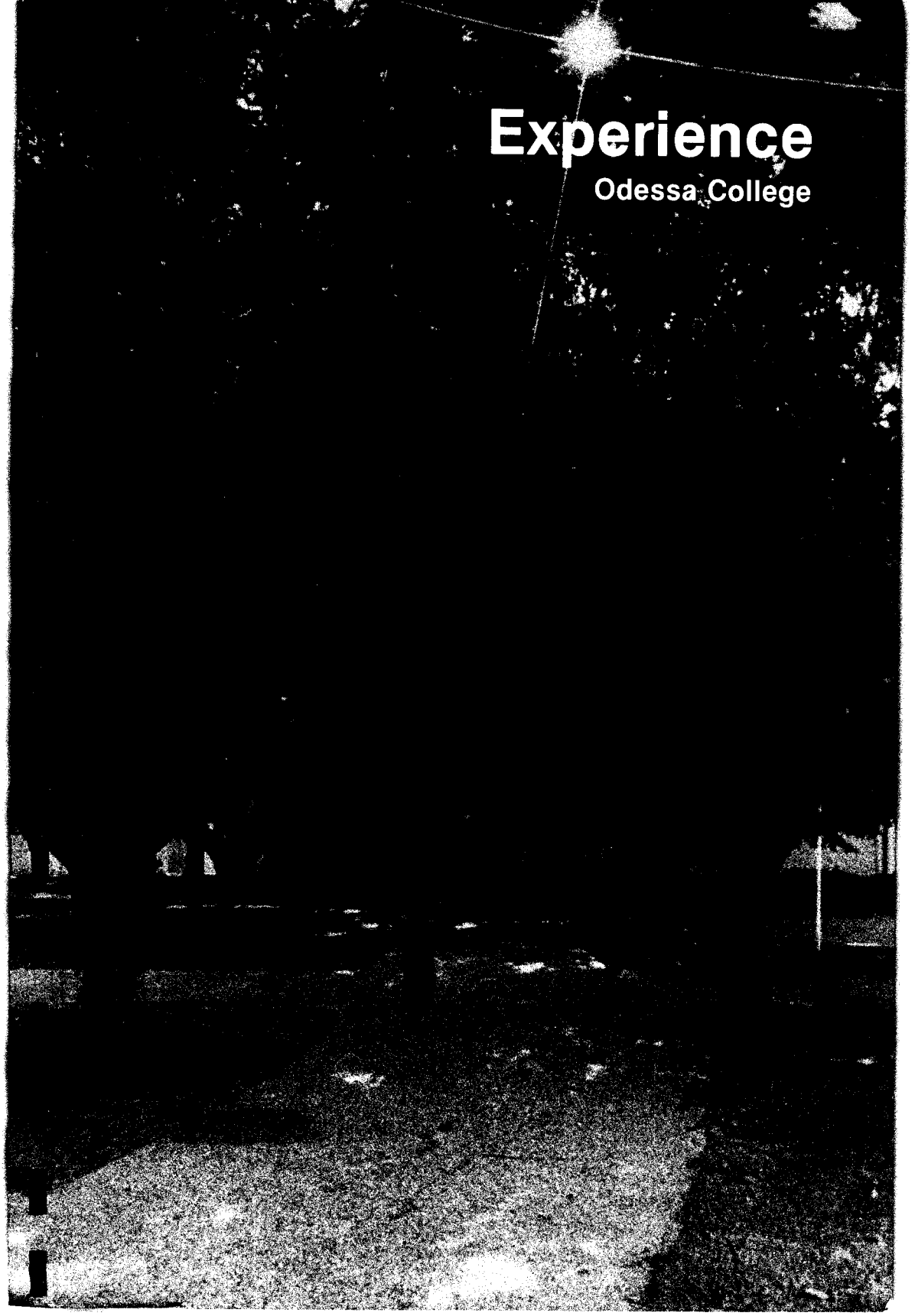
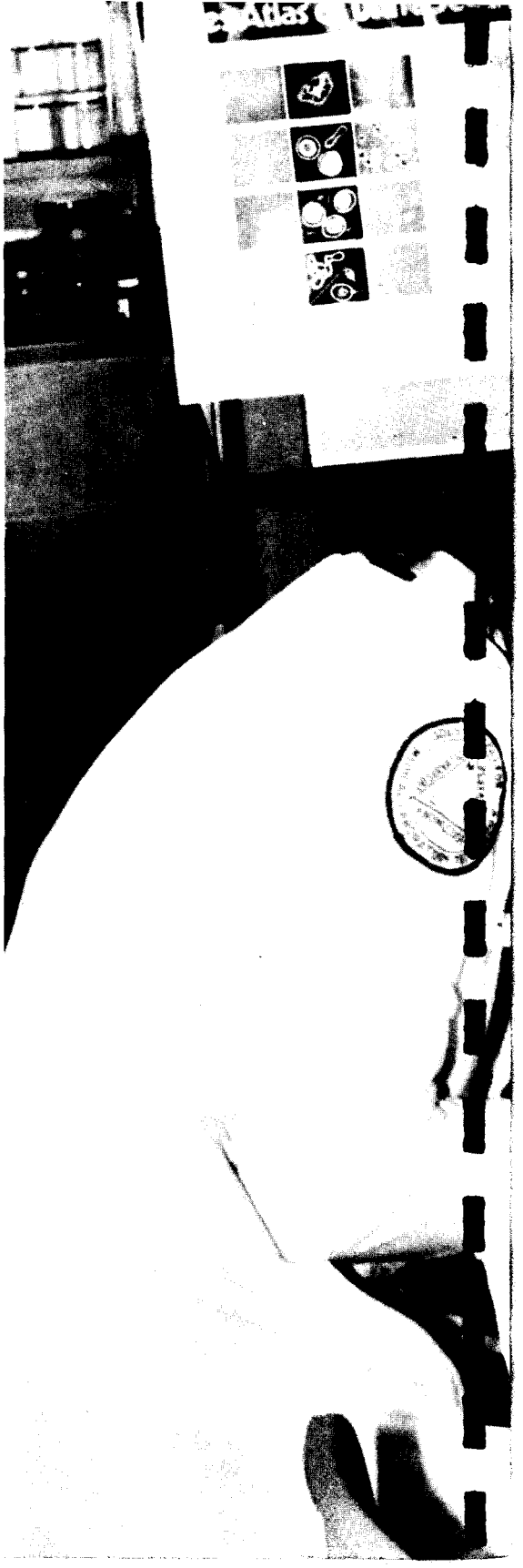
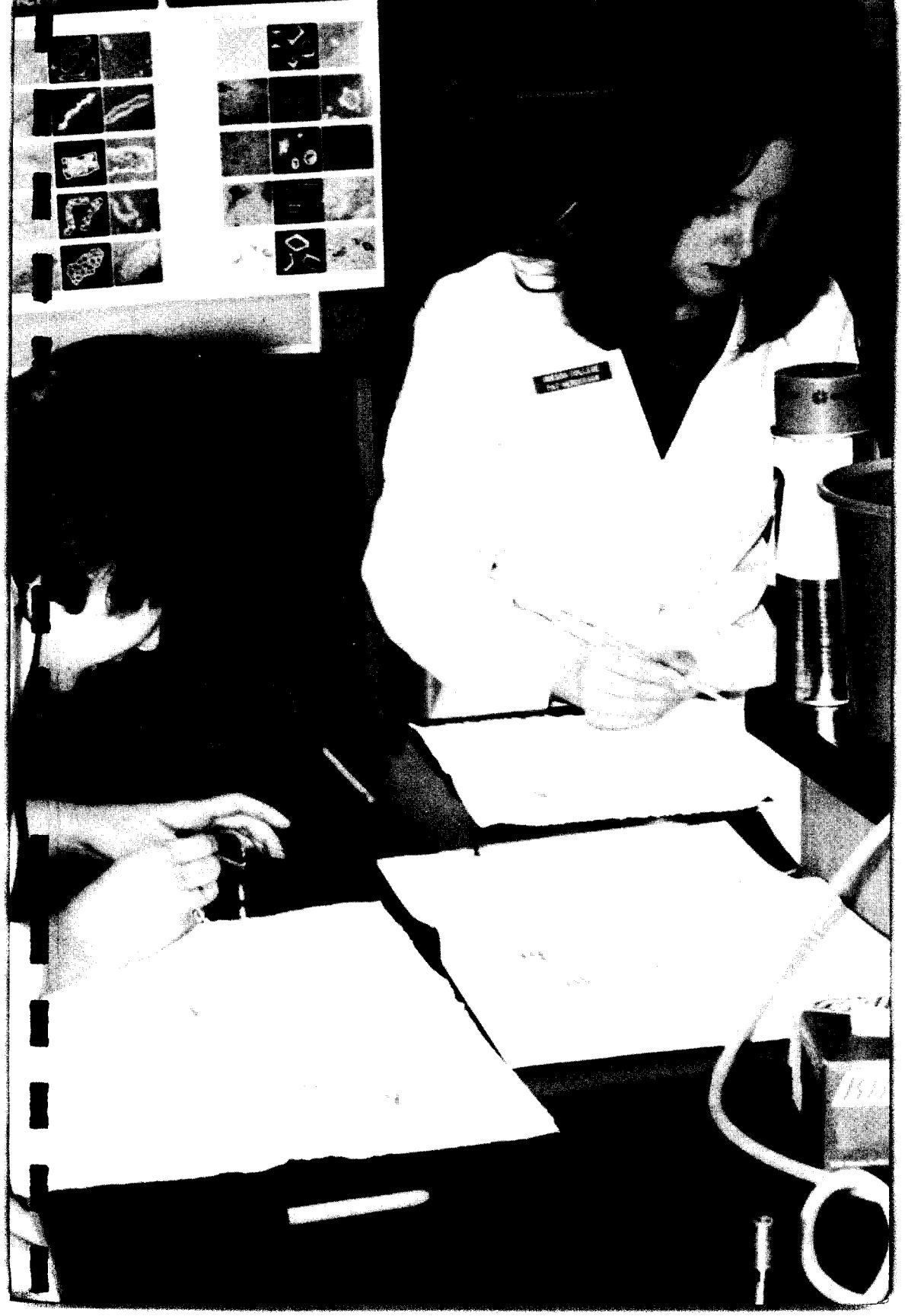
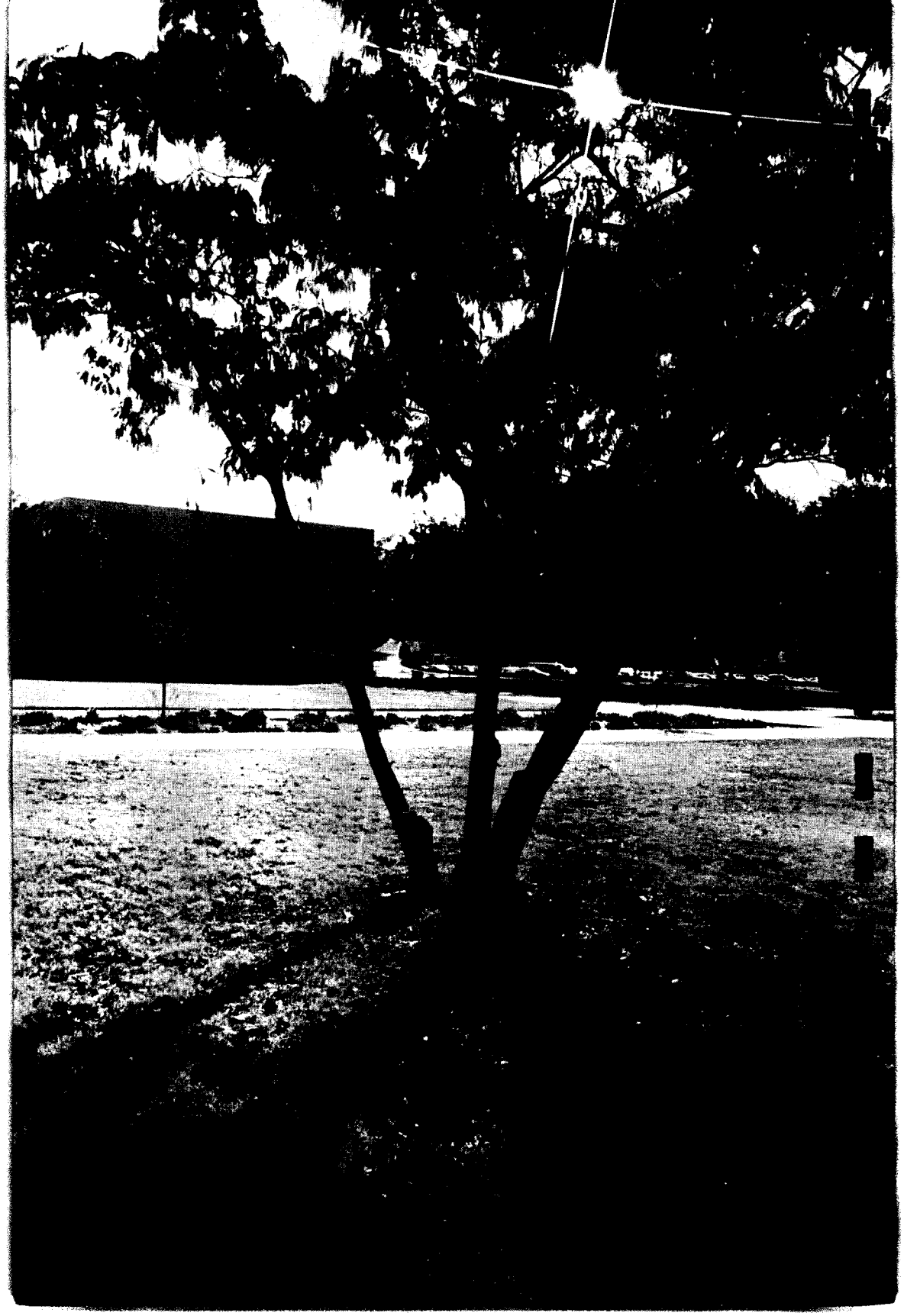

Experience
Odessa College

A Taste of New Life

A life that is full and rewarding. A life that is challenging. A life that shows you're moving. A taste of new life that is found at Odessa College. Every experience leaves its mark on your life. Every touch can be felt long after the stimulus is gone. Your mind is a storehouse of impressions. No one can take them from you. And no one can rob your mind of the experiences of education. Knowledge is the best investment you'll ever make. It will reward you with dividends throughout a lifetime. Odessa College exists for your lifetime learning. Whatever you want to learn . . . for a new career . . . for preparing for further study at a university . . . for your own enjoyment. Odessa College will give you a taste of new life.







A Community College

Odessa College's past is interwoven with growth and progress. A review of the college's 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, Odessa College's enrollment, programs and services have grown steadily through the last 33 years. Through the various programs and services offered by Odessa College, there are now more than 16,000 enrollments during a single school year. Enrollment in the academic credit courses in the fall of 1979 surpassed 4,000 students. During the same semester thousands of other students were enrolled in adult and continuing education courses.

Initially housed in temporary quarters in Odessa High School, now the home of Crockett Junior High, Odessa College's first classes were conducted after public school hours in the late afternoons and evenings. Ector County taxpayers purchased a five-acre plot in the 2500 block of the Andrews Highway and in 1949 erected Baskin Hall as the college's first permanent structure.

The size of the campus grew to 15 buildings on a 35-acre plot by 1960. Today the $25-plus million campus is spread over 80 acres and includes some 22 buildings that house more than 150 classrooms and laboratories.

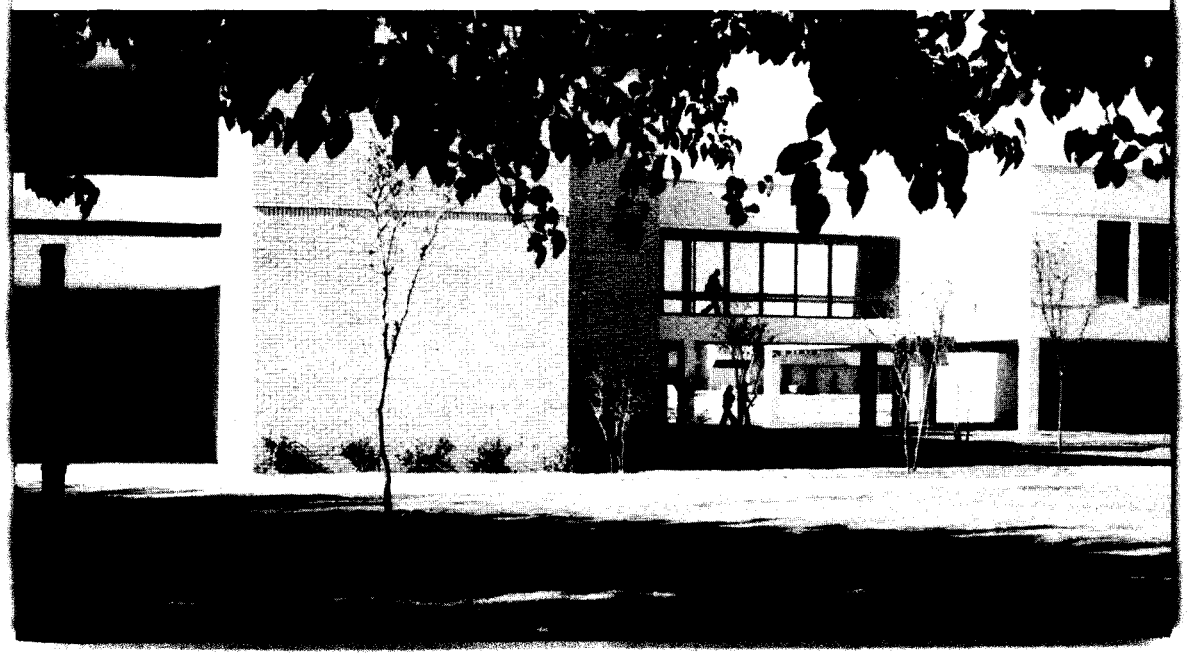
As the college has grown, so has its effectiveness. Quality education and academic excellence have been hallmarks of Odessa College.

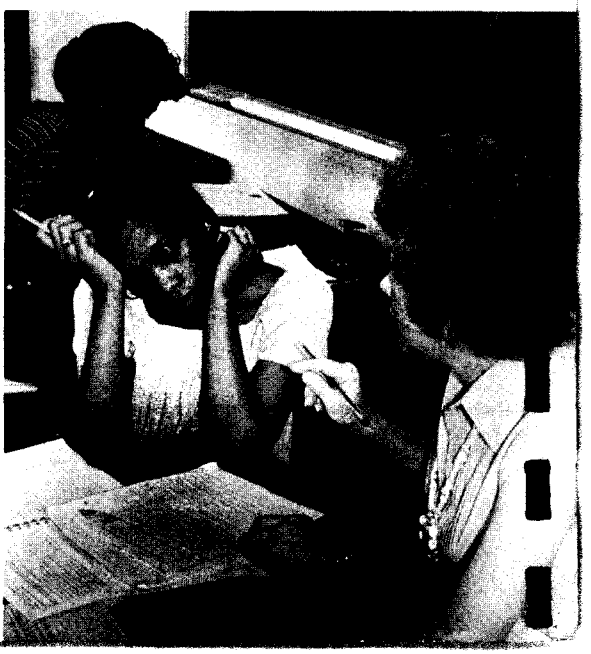
More than 25 occupational-technical programs are currently being offered at Odessa College, and additional ones are being planned to meet the needs of citizens who want to learn new or improve existing career skills. Approximately one-half of the college's students are enrolled in occupational-technical programs.

A wide variety of university-preparatory courses also is offered for students planning to finish four-year degrees at senior colleges or universities.

Odessa College is a mature college with a youthful spirit. The college is proud of its heritage, but sees its successful past as a challenge for an even greater future.

As community needs change, Odessa College will remold its programs to better serve the people.





Why Odessa College Exists

Odessa College has but one reason for existence — to provide the finest educational opportunities possible for all the people of the Ector County area. The comprehensive community college is dedicated to providing the full spectrum of educational services, limited only by the physical and financial resources that are available.

The open admission policy assures each person who has the desire and capacity to profit from post-secondary education an opportunity to learn. Curricula and educational services are designed to assist people to realize more fully their individual potential and to live richer lives and become more responsible and productive members of our society.

Odessa College specifically intends:

to provide the first two years of college and pre-professional programs, preparing students within a field of study for further education;

to offer programs in occupational-technical training and provide students with the comprehensive skills and knowledge required in specialized fields;

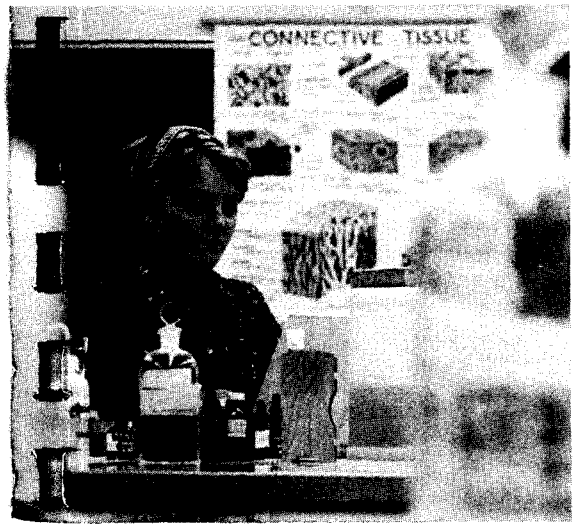
to provide a general educational program for all people, preparing them for more effective involvement in society, as well as providing opportunities for increased personal and cultural enrichment;

to provide opportunities for all adults,including non-high school graduates, who wish to begin or to continue a college education;

to offer adults in the community an opportunity to continue their education which will result in upgrading their occupational skills, cultural enlightenment and personal satisfaction;

to have an educational environment which enables every student an opportunity to maximize his potential through complete student services; and

to encourage the use of facilities and programs by the citizens of the community.



Odessa College is . . .

a comprehensive community college dedicated to meeting the educational needs of the community. It is responsive to community needs and provides a wide variety of educational services to satisfy those needs . . .

a proven college dedicated to excellence in all of its programs . . .

a student-centered college that keeps the personal touch. Students receive individual attention from highly qualified faculty and staff who are interested in helping them succeed in their educational development . . .

a progressive college constantly alert to innovative educational techniques and technologies — a college committed to constructive change . . .

a multi-faceted college with a wide variety of programs in university-parallel areas, technical-vocational studies, developmental courses, personal development studies, community recreation, and adult and continuing education. This variety assures students that Odessa College can design a program specifically to fit their needs . . .

a concerned college where students are important as individuals. It's the place for students of all ages to begin a promising future.

College Calendar 1980-81

Summer, 1980

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

First Term

*Early registration	April 21-May 2
Registration	May 29 (Thur)
Classes begin	June 2 (Mon)
Late registration closes	June 4 (Wed)
Last day to drop or withdraw with automatic "W"	June 12 (Thur)
Last day to drop or withdraw with "W" or "WF"	June 26 (Thur)
Final examinations, end of term	July 8 (Tues)

Second Term

Registration	July 9 (Wed)
Classes begin	July 10 (Thur)
Late registration closes	July 15 (Tues)
Last day to drop with automatic "W"	July 23 (Wed)
Last day to drop or withdraw with "W" or "WF"	August 6 (Wed)
Final examinations, end of term	August 14 (Thur)

Fall, 1980

*Early registration	July 16-August 19
No early registration on August 14	
Academic year begins	August 25 (Mon)
Registration	August 28 (Thur)
Labor Day Holiday	September 1 (Mon)
Classes begin	September 2 (Tues)
Last day to register for full class load (5 classes or fewer)	September 8 (Mon)
Last day to complete late registration (3 classes or fewer)	September 15 (Mon)
Last day to drop or withdraw with automatic "W"	October 10 (Fri)
Mid-Semester	October 24 (Fri)
Last day to drop or withdraw with "W" or "WF"	November 21 (Fri)
Thanksgiving Holiday	November 27-28
Begins 5:00 p.m. November 26	(Thurs & Fri)
Final examinations	December 15-18
End of fall semester	December 19 (Fri)
Christmas Holidays, offices closed	December 22-January 2

JUNE

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1981

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JUNE

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Midwinter Session 1980-81

*Early registration ..... To be announced
Registration, classes begin ..... December 29
Holiday, New Year's Day ..... January 1
Final examinations, end of term ..... January 9

Spring, 1981

*Early registration ..... November 17-December 12
Offices reopen after Christmas Holidays ..... January 5 (Mon)
Registration ..... January 13 (Tues)
Classes begin ..... January 15 (Thur)
Last day to register for full class load (5 classes or fewer) ..... January 21 (Wed)
Last day to complete late registration (3 classes or fewer) .. January 28 (Wed)
Last day to drop or withdraw with automatic "W" ..... February 25 (Wed)
Mid-Semester ..... March 13 (Fri)
Spring/Easter Vacation ..... April 13-20
Classes Resume ..... April 21 (Tues)
Last day to drop or withdraw with "W" or "WF" ..... April 8 (Wed)
Final examinations ..... May 11-14
End of spring semester ..... May 15 (Fri)

Summer, 1981

First Term

Registration ..... June 1 (Mon)
Classes begin ..... June 2 (Tues)
Late registration closes ..... June 4 (Thur)
Last day to drop or withdraw with automatic "W" ..... June 16 (Tues)
Last day to drop or withdraw with "W" or "WF" ..... June 29 (Mon)
Final examinations, end of term ..... July 7 (Tues)

Second Term

Registration ..... July 8 (Wed)
Classes begin ..... July 9 (Thur)
Late registration closes ..... July 14 (Tues)
Last day to drop or withdraw with automatic "W" ..... July 23 (Thur)
Last day to drop or withdraw with "W" or "WF" ..... August 5 (Wed)
Final examinations, end of term ..... August 13 (Thur)

*Hours for early registration activities will be designated in the schedule of classes for the semester.

Location

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

Odessa is a cultural, recreational, educational, medical, retail and wholesale trading center for a wide region as large as several eastern seaboard states combined. It lies in the Permian Basin, one of the world's greatest oilfields, and is the home of the nation's largest inland petrochemical complex. Its two hospitals provide a wide variety of medical services for the region. Odessa boasts a daily newspaper, three television stations, six radio stations, and over 150 churches. It is the site of an upper-level university, the University of Texas of the Permian Basin (UTPB), providing upper-level and graduate studies. Numerous cultural, intellectual and recreational activities are available for the area's citizens.

The area's healthy economy and diversified industrial and economic establishments offer part-time and full-time employment opportunities.

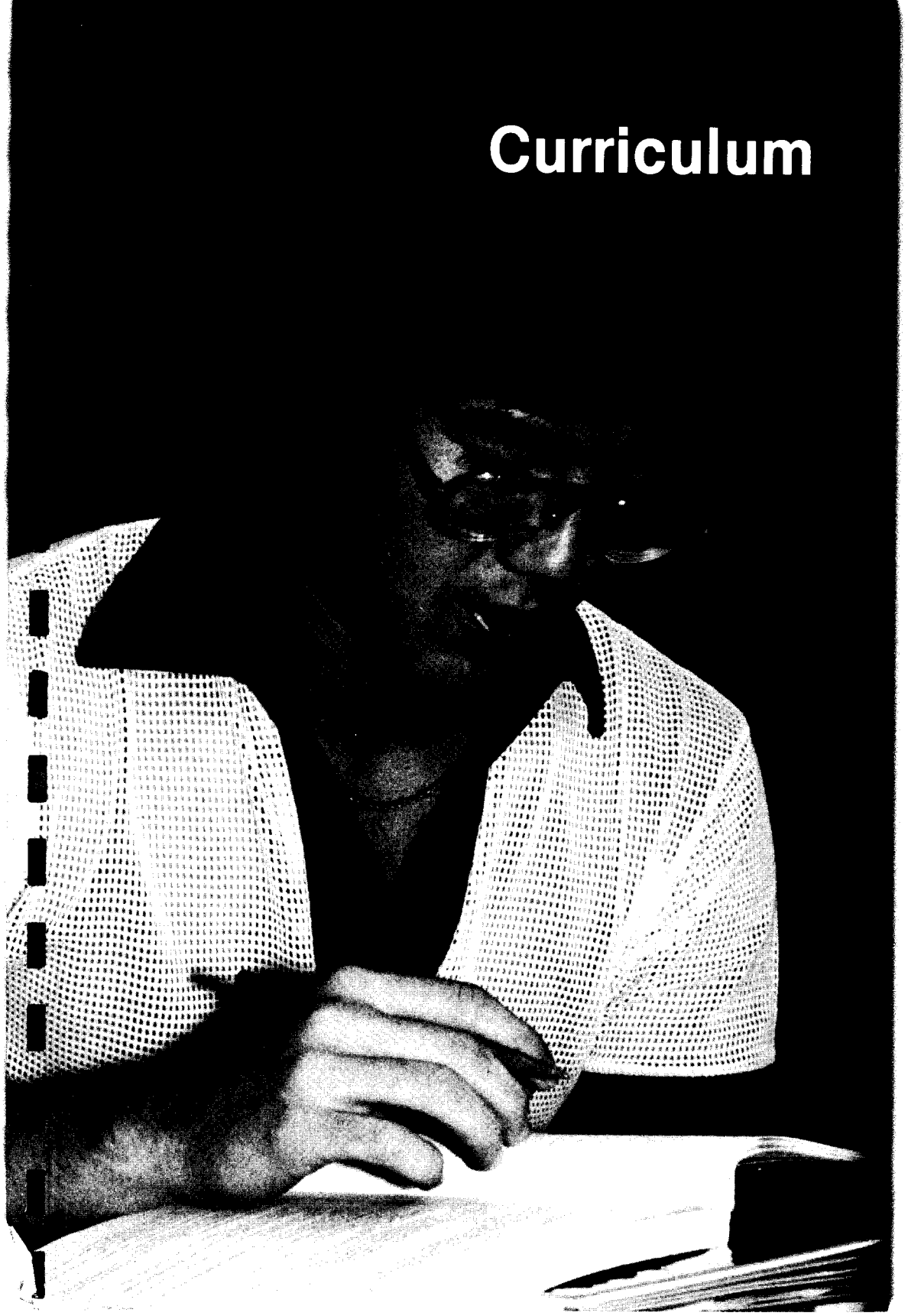
Odessa is a growing, progressive city where people are friendly and heartily support the college and its efforts. Newcomers find Odessa a good place to live and rear a family, as well as an enjoyable place to study and work.

Accreditation

The quality of education at Odessa College is demonstrated by the number of agencies and associations that have given accreditation and membership privileges to the college. The college is approved or accredited by the Texas Education Agency, Southern Association of Colleges and Schools, Coordinating Board of the Texas College and University System, Association of Texas Colleges and Universities, Texas Educational Theatre Conference, American Theatre Association, National Association of Schools of Music, National League for Nursing, Radiologic Technology Association of America, Council on Medical Education of American Medical Association, Joint Review Committee on Education in Radiologic Technology, and Joint Review Committee on Education in Respiratory Therapy.

Odessa College is a member of the American Association of Community and Junior Colleges, American Association of University Administrators, American College Theatre Festival, American Library Association, American Theatre Association, American Association of Collegiate Registrars and Admissions Officers, Associate Degree Council of Agency Members, National League for Nursing, Association of College Unions International, Association of Community College Trustees, Association of Texas Junior College Board Members and Administrators, College Placement Council, Council for the Advancement and Support of Education, National Council for Community Relations, National Association for Foreign Student Affairs, National Association of College and University Business Officers, National Association of Collegiate Directors of Athletics, National Association of Student Financial Aid Administrators, National Association of Vocational-Technical Education Communicators, National Entertainment and Campus Activities Association, National Junior College Athletic Association, Regional Education Board of the Council on Collegiate Education for Nursing, Southern Association of Junior Colleges, Southern Association of Collegiate Registrars and Admissions Officers, Southwest Association of Student Financial Aid Administrators, Southwestern Business Administration Association, Texas Association of Student Financial Aid Administrators, Texas Association of Collegiate Registrars and Admission Officers, Texas Associataion of Intercollegiate Athletics for Women, Texas Association of Junior Colleges, Texas Association of Public Junior Colleges, Texas Association of Public Junior College Business Officers, Texas Association of Schools of Art, Texas Educational Theatre Association, Texas Intercollegiate Press Association, Texas Junior College Press Association, Texas Junior College Teachers Association, Texas Music Educators Association, Texas Music Teachers Association, Video Tape Network, and Western Junior College Athletic Conference.

Curriculum



Art

Faculty
Barry Phillips, chairman; Delmos Hickmott, Bill Worrell.

The Department of Art provides an opportunity for all members of the community to explore and develop their creative potential. Art courses are designed to provide quality instruction for those students seeking professional and semi-professional art degrees and careers. The Department of Art utilizes the core curriculum of art instruction as recommended and approved by the Texas Association of Schools of Art and the Texas College and University Coordinating Board. These core courses are freely transferable to all accredited Texas colleges and universities as they apply to the student's particular art major. In addition to a professionally active art faculty, the art program includes well equipped labs for all areas of studio art — such as drawing, painting, ceramics, sculpture, and jewelry.

Course of Study for Associate in Art Degree

First Year

First Semester

Course	Sem. Hrs.
Art 1371 or 1300	3
Art 1311	3
Art 1331 or 1321	3
Engl 1311	3
Psy 1201	2
PE	1
Science	4

Second Semester

Course	Sem. Hrs.
Art 1312	3
Art 1321 or 1331	3
Art 1372 or 1300	3
Engl 1312	3
PE	1
Science	4

Second Year

Third Semester

Course	Sem. Hrs.
Art 1322	3
Art 2321	3
Art 2341, 2381 or 2391	3
Engl (Sophomore Level)	3
Govt 2301	3
Hist 2301	3
PE	1

Fourth Semester

Course	Sem. Hrs.
Art 2321 or 2322	3
Art 2361	3
Art 2381 or 2391 or 2341	3
Engl (Sophomore Level)	3
Govt 2302	3
Hist 2302	3
PE	1

Art 1300 Art Appreciation (3-0) ..... 3 hours
This general course in art appreciation is open to all college students. It is an introduction to the visual arts, presenting the psychological foundations of creative behavior, aesthetic theory and philosophy, and an analysis of the principles, problems, and techniques of the artist. Students may opt for self-paced or lecture course. Prerequisite: None.

Art 1311 Drawing I (2-4) ..... 3 hours
This course develops skills in drawing from life and nature. Pictorial composition, perspective, line, value, and wash drawings in a variety of media are included. Emphasis is on the development of hand-eye coordination. Prerequisite: None.

Art 1312 Drawing II (2-4) ..... 3 hours
Drawing 1312 is a continuation of Drawing 1311 with additional emphasis on developing sensitivity to art elements in the environment. Prerequisite: Art 1311.

Art 1321 Design I (2-4) ..... 3 hours
An introduction to the principles and elements of design is the concern of this course. The development of sensitivity to the principles and elements of design as they exist in the environment is stressed. Prerequisite: None.

Art 1322 Design II (2-4) ..... 3 hours
Design 1322 is a continuation of Design 1321 with emphasis on the creation of three-dimensional art products. Prerequisite: Art 1321.

Art 1331 Figure Drawing I (2-4)..... 3 hours
This course develops skill in drawing the human figure. Stress is on handling of form, movement, and proportion. A variety of drawing techniques and media is studied in the course. Prerequisite: Art 1311 or its equivalent.

Art 1332 Figure Drawing II (2-4).... 3 hours
This course is a continuation of Art 1331. It emphasizes aesthetic factors, style, and creative approaches. Prerequisite: Art 1331.

Art 1371 Art History Survey I (3-0)..... 3 hours
Western Man's art heritage from the prehistoric era through the Middle Ages is surveyed in this course. The relationship of great works of art to their respective culture and civilization is stressed. A variety of audio-visual media is used to illustrate the various periods, styles and personalities. Prerequisite: None.

Art 1372 Art History Survey II (3-0)..... 3 hours
Art History 1372 is a continuation of Art History 1371. Western Man's art heritage from the Renaissance to the present is included. Emphasis is on gaining an understanding of the varied forms of modern art through their relationship to contemporary society. Prerequisite: None.

Art 2311 Watercolor Painting I (2-4) 3 hours
An exploration of the various watercolor techniques and their application to a wide range of subject matter is made in this introduction to watercolor. Stress is on the development of basic skills in watercolor expression. Prerequisite: Art 1311 or its equivalent.

Art 2312 Watercolor Painting II (2-4) 3 hours
This course is a continuation of Art 2311. It emphasizes aesthetic factors, style, and creative approaches. Prerequisite: Art 2311.

Art 2321 Painting I (2-4)..... 3 hours
This course is an introduction to various painting media (acrylic or oils) and modes of expression, with emphasis on the development of basic painting skills and aesthetic sensibilities. Prerequisite: Art 1311 or Art 1321 or their equivalent.

Art 2322 Painting II (2-4)..... 3 hours
Art 2322 is a continuation of Art 2321 with emphasis on aesthetic factors. Prerequisite: Art 2321 or its equivalent.

Art 2341 Art Metals and Jewelry I (2-4)..... 3 hours
Art Metals and Jewelry 2341 is designed to give the student the ability to create original, functional jewelry by using a variety of techniques, media, and shop practices. Prerequisitie: None.

Art 2342 Art Metals and Jewelry II (2-4)..... 3 hours
Art Metals and Jewelry 2342 is designed to further the student's ability to produce original jewelry by emphasizing the exploration of jewelry techniques, emphasizing casting and more complex construction. Prerequisite: None.

Art 2361 Printmaking I (2-4)..... 3 hours
This course is an introduction to woodcut, dry point, collograph, etching, and silk screen printing techniques and media. Prerequisite: Art 1311 and 1321 or consent of instructor.

Art 2362 Printmaking II (2-4)..... 3 hours
This course is a continuation of Art 2361. It emphasizes aesthetic factors, style, and creative approaches. Prerequisite: Art 2361.

Art 2381 Pottery I (2-4)..... 3 hours
Techniques taught in this course include coil, slab, and wheel methods of creating original pottery forms and the refining of native clays. Also taught are bisque and glaze firings, plus raku sawdust firings and the mixing and applying of pottery glazes. Prerequisite: None.

Art 2382 Pottery II (2-4)..... 3 hours
This course is a continuation of Art 2381. It emphasizes aesthetic factors, style, and advanced wheel work. Prerequisite: Art 2381.

Art 2391 Sculpture I (2-4)..... 3 hours
Basic instruction in the principles and techniques of sculpture is the concern of this course. A variety of materials including clay, metal, wood, and plastics are explored along with basic techniques of casting, welding, moulding and assemblage. Prerequisite: Art 1321 or approval of instructor.

Art 2392 Sculpture II (2-4)..... 3 hours
Art 2392 is a continuation of Art 2391 with emphasis on advanced sculpture techniques and design concepts. Prerequisite: Art 2391.

Automotive Mechanics

Faculty
Dave Atherton, chairman; Owen Monette.

Maintaining and servicing automobiles is an immense 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 the proper qualifications.

The Associate in Applied Science Degree provides the necessary educational background for advancing to positions of even greater responsibility in the industry.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
AT 1601	6	AT 1603	6
AT 1602	6	AT 1604	6
Math	3	DT 1401 or Engr 1301	4-3
Psy 1201	2	*PE	1
*PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
AT 2601	6	AT 2603	6
AT 2602	6	AT 2604	6
Engl 1311	3	Engl 1312 or Spch 2340	3
Govt 2301 or 2302	3	Mgt 1301	3

*H.Ed. 1301 may be substituted for the two 1-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight hours in AT courses.

AT 1601 The Automotive Industry—Its Tools & Equipment (2-8) ... 6 hours
This course introduces the student to the history of the auto industry and presents current trends of the industry's employment potential. The student is instructed in proper use of machines and equipment used by the trade. Emphasis is placed on proper use of training aids, audio-visual equipment and reference manuals. Students are given instruction in proper safety procedures. Prerequisite: None.

AT 1602 Automotive Engines and Machining Operations (2-8) ..... 6 hours
This course involves theory and practice in the basic principles needed for repair and maintenance of internal combustion engines. Design characteristics of engines plus their supporting systems are studied. Engines are completely rebuilt utilizing proper machining operations. Specification manuals, measuring instruments, and tool usage are emphasized. Prerequisite: AT 1601.

AT 1603 Transmissions and Power Trains (2-8) ..... 6 hours
This course provides instruction in overhaul procedures as they relate to clutches, standard transmissions, automatic transmissions, drive shafts, and differentials. Principles of operation are emphasized. Prerequisite: AT 1601.

AT 1604 Automotive Brakes, Suspension Systems, and Front-End Alignment (2-8) ..... 6 hours
This course emphasizes repair procedures as they relate to brakes, front-end alignment, and suspension systems. Laboratory work will include use of brake lathes, wheel balance equipment, and front-end alignment equipment. Theory will be a primary element of the course. Prerequisite: AT 1601.

AT 2601 Automotive Electrical Systems (2-8) ..... 6 hours
Basic electrical fundamentals ranging from the most elementary to the more advanced systems will be studied. Emphasis will be on testing procedures and diagnostic procedures. Equipment used will be diagnostic equipment, ohmmeters, test lights, and oscilloscopes. Prerequisite: AT 1601.

AT 2602 Heating, Cooling and Air-Conditioning Systems (2-8) ... 6 hours
The physics of temperature change as it applies to the automobile will be studied. Classroom and laboratory experiences will be designed to instruct the student in current diagnostic principles and repair procedures. Prerequisite: AT 1601.

AT 2603. Automotive Fuel Systems and Emission Controls (2-8) ..... 6 hours
This course emphasizes fuels and emissions as they relate to tune-up procedures. Various fuel system components and emission control systems are studied. Emphasis is placed on carburetor overhaul and adjustment. Exhaust emission test equipment is used in conjunction with the engine analyzer and the chassis dynamometer. Prerequisite: AT 1601.

AT 2604 Automobile Servicing and Shop Management (2-8) ..... 6 hours
This course is designed to prepare students for entry employment and to provide practical experience in diagnosis and shop management. The course consists of relevant individual project assignments. Prerequisiste: All AT courses.

Automotive Body Repair

The college tentatively plans to begin as automotive body repair training program by the fall of 1980, subject to approval of the Texas Education Agency.

Biology

Faculty
Dr. Clyde Smith, chairman; Dr. Vincent Coffey, Roger Corzine, Don Huff, Steve Sofge.

Courses offered in the Biology Department are directed toward two objectives. First, they are designed to provide the student majoring in a biological science with a broad and sound foundation for advanced study at an upper-level or professional institution. The second objective is to provide 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

First Year

First Semester		Second Semester	
Course	Sem.Hrs.	Course	Sem. Hrs.
Biol 1401	4	Biol 1402	4
Chem 1301 and 1101	4	Chem 1302 and 1102	4
Engl 1311	3	Engl 1312	3
Phys 1401	4	Phys 1402	4
Math 1341 or More Advanced	3	Math 1343 or More Advanced	3
Psy 1201	2	PE	1
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
*Biology Elective	3-4	*Biology Elective	3-4
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Govt 2301	3	Govt 2302	3
Hist 2301	3	Hist 2302	3
Chem 2301 and 2101	4	Chem 2302 and 2102	4
PE	1	PE	1

*The second year requirements for Biology Electives may be fulfilled by taking any combination of the following courses. Biol 2301, Biol 2302, Biol 2401, Biol 2402, Biol 2403, or Biol 2404. Choice of an elective may depend upon the student's plans for future study. The student is invited to consult with the Biology faculty for information on these courses.

Dentistry**

Entrance to a college of dentistry requires a minimum of sixty semester hours of acceptable college or university credit in addition to meeting the special entrance requirements of the chosen college. A student may satisfy the sixty semester hours of college credit and qualify for the Associate Degree in Science by following the suggested degree plan.

Medicine**

It is recommended by most colleges of medicine that a student complete a baccalaureate degree before entering the college of medicine. Since there is no baccalaureate degree in "Pre-Med," no particular major is specified so long as the courses which are required for entrance to the college of medicine are included. Provisions exist for a student to be admitted to a college of medicine upon completion of ninety semester hours of college credit provided he satisfies all other requirements for entrance to the college of medicine.

A student may complete specified courses in the first two years of college and qualify for the Associate Degree in Science following the suggested degree plan.

Veterinary Medicine**

The minimum scholastic requirement for enrollment in the professional curriculum of veterinary medicine is the satisfactory completion of not less than sixty semester hours of acceptable college or university credit. In addition to this the student must meet any special entrance requirements that may exist for the college of veterinary medicine.

A student may complete the required course for the first two years and qualify for an Associate Degree in Science by following the suggested degree plan.

Pharmacy**

Entrance to a college of pharmacy may be gained after the completion of two years of college providing that the student has successfully completed certain required courses and can satisfy the special entrance requirements of the college of pharmacy.

A student may complete the two years of college required and qualify for the Associate Degree in Science by following the suggested degree plan.

Optometry**

Entrance to a college of optometry may be gained after the completion of two years of college providing that the student has successfully completed certain required courses and can satisfy the special entrance requirements of the college of optometry.

A student may complete the two years of college required and qualify for the Associate Degree in Science by following the suggested degree plan.

**The student who expects to enter a profession in dentistry, law, medicine, optometry, pharmacy, veterinary medicine, or some related profession which requires graduation from a specialized college should check carefully the entrance requirements for the college to which he expects to transfer after two years at the Odessa College.
Odessa College offers courses which are required in the first years by most specialized colleges.

Biol 1100 Medical Terminology (1-0) ..... 1 hour
An introduction to medical terminology for students who are planning any sort of health science career. The course will consist of Latin and Greek roots, prefixes and suffixes as well as proper pronunciation and spelling. No prerequisite.

Biol 1301 Anatomy & Physiology I (3-2) ..... 3 hours
The first of a two-semester course in Anatomy & Physiology presented in an integrated manner to allow the relationship between form and function to be clearly demonstrated. Topics for study include the cell, basic chemistry, tissues, and some of the body systems. Prerequisite: None.

Biol 1302 Anatomy & Physiology II (3-2) ..... 3 hours
This course is a continuation of Biol 1301 and assumes the foundations laid therein. Study will include completion of the body systems and a major mammal dissection. Prerequisite: Biol 1301.

Biol 1400 Introduction to Science (3-3) ..... 4 hours
Biology 1400 is a preparatory course for those students requiring a science foundation prior to entering a more advanced course of study. Emphasis is placed on chemistry, human biology, and microbiology. Special attention is given to the chemical and anatomical aspects of the human body and the roles microorganisms play in affecting health. Biology 1400 is not intended to meet the biology or science requirement of upper-level institutions for advanced degrees. No prerequisite is required.

Biol 1401 General Biology (3-3) .... 4 hours
Biol 1401 is a study of the cellular and organ activities of representative plants and animals with the objective of providing the student with an overall picture of the living world and the organizational and functional aspects of living matter. Prerequisite: None.

Biol 1402 General Biology (3-3) .... 4 hours
This course is a continuation of Biol 1401 and assumes the foundation laid therein. The instructional approach is oriented toward analysis rather than description in dealing with the operational character of living matter. Prerequisite: Biol 1401 or consent of the instructor.

Biol 1403 Human Anatomy & Physiology (3-3) ..... 4 hours
This course is a one-semester course dealing with functional anatomy and basic principles of the different systems of the body and their physiological activities. Prerequisite: None.

Biol 2201 Marine Ecology (12-36, 2 wks.) ..... 2 hours
This is a field course in marine ecology held at Cholla Bay, Puerto Penasco, Sonora, Mexico. The ten-day course is offered between the spring semester and the first summer session, as well as during the Midwinter Session. Emphasis is on field observation and identification of shore and reef animals in Cholla Bay. Shore fish, planktonic forms and marine algae are also studied. Field Collection, identification and preservation techniques are presented along with the systemic, life history and ecological information. Prerequisite: Consent of the instructor.

Biol 2301 General Ecology (3-2) .... 3 hours
This course deals with the concepts of plant and animal communities, and population dynamics. Other topics include: community classification, environmental sampling methods, and the effects of chemicals on the biome. Field trips, group discussions, and a written theme are also included. Prerequisite: One semester of either biology or geology, or consent of the instructor.

Biol 2302 Introductory Entomology (2-3) ..... 3 hours
This course is an introduction to the study of the classification, structure, physiology, ecology and evolution of insects. Special attention is given to insects of economic significance, their identification, life cycles, and relationships to man, including fundamental biological interactions and controls. Collections and field trips are required. Prerequisite: Consent of instructor.

Biol 2401 Comparative Anatomy (3-4) ..... 4 hours
A study of the anatomy of type chordates is undertaken from a comparative viewpoint. Lectures deal with the progressive development of the organs and organ systems. A representative animal from each class of the Vertebrata is dissected in the laboratory. Prerequisite: Biol 1401 and 1402.

Biol 2402 Introductory Genetics (3-3) ..... 4 hours
This course deals with the physical and chemical bases of hereditary variation in the living world. The application of genetic principles is stressed. A laboratory problem involving the identification of the inheritance of several mutations in an experimental organism is required. Prerequisite: Biol 1401 and 1402, or consent of instructor. College algebra is useful but not required.

Biol 2403 Microbiology (3-3) ..... 4 hours
Microbiology is the course that deals with the structure, cultivation, classification and ecology of microoganisms. Emphasis is placed on the life activities of bacteria and their effects on man and his environment. Prerequiste: Biol 1401 and 1402 or 1403, or consent of instructor.

Biol 2404 General Botany (3-3) ..... 4 hours
Survey of the plant kingdom from procaryotic algae through the flowering plants with special emphasis on the plants of the West Texas area. Life histories, form, function, and structure of plant organs, and the plant in relation to its environment will be stressed. The application of basic botanical science to the related fields of Agronomy, Horticulture, Forestry, Physiology, Taxonomy and Paleobotany will be discussed. Biol 2404 is strongly recommended for those students planning on a career in the biological sciences such as biology teaching, research, extension, or in one of the more applied areas. Prerequisite: Biol 1401 and 1402, or consent of instructor.

Building Trades

Faculty
John Price, chairman.

The Building Trades Program at Odessa College is designed to train students for entry level jobs in the building and construction industry. Specific areas of training include on-site experience in the areas of (1) carpentry; (2) concrete; (3) masonry; (4) plumbing; (5) electrical; (6) mechanical, and (7) architectural drawing and specifications.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BT 1601	6	BT 1603	6
BT 1602	6	Bt 1604	6
Engl 1311	3	Engl 1312 or Speech 2340	3
Psy 1201	2	*PE	1
*PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BT 2601	6	BT 2603	6
BT 2602	6	BT 2604	6
Math 1313, 1321, or More Advanced	3	Govt 2301 or 2302	3

*H.Ed 1301 may be substituted for the two one-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight hours in BT courses.

BT 1601 Principles of Residential Construction I (2-8) ..... 6 hours
An introduction to the principles of basic residential construction. Study will include an introduction to hand tools, power tools used in construction trades, safety, building materials, blueprint reading, specifications, surveying and related mathematics. Prerequisite: None.

BT 1602 Carpentry I (2-8) ..... 6 hours
Study will include all carpentry skills. Students will study selection and use of materials, carpentry equipment, framing and industrial safety. Prerequisite: None.

BT 1603 Principles of Residential Construction II (2-8) ..... 6 hours
A continuation of BT 1601. Emphasis will be placed on foundations and form work, masonry and concrete finishing and framing. Prerequisite: BT 1601.

BT 1604 Carpentry II (2-8) ..... 6 hours
Continuation of BT 1602, to include the actual erection of walls, installation of sheathing, windows and doors, frames, rafters and roofing materials. Prerequisite: BT 1602.

BT 2601 Principles of Residential Construction III (2-8) ..... 6 hours
A study of the plumbing and masonry trades — codes, specifications and requirements in the plumbing trades as required from city easement to completed installation. Masonry trades will include concrete, bricks, stone and expanded shale blocks. Prerequisite: BT 1603.

BT 2602 Principles of Residential Construction IV (2-8) ..... 6 hours
A study of the codes, specifications and requirements for the electrical and mechanical trades. Electrical requirements from line to finished installation along with heating and air conditioning will be studied. Prerequisite: BT 1603.

BT 2603 Cabinetry and Finish Work (2-8) ..... 6 hours
Finishing procedures such as fixtures, cabinet work, sheetrocking, acoustical and ceramic tile installation, painting, finishing and all other necessary steps to complete the building will be emphasized. Prerequisite: BT 1604.

BT 2604 Special Problems (2-8) .... 6 hours
A study of the erection of residential buildings in modules; construction cost analysis, bidding procedures, estimating and current research and development related to individual fields of interest. Preparation, procedures and techniques for securing employment in the building trades will also be emphasized. Prerequisite: Approval of department chairman.

Business Administration

Faculty
Dr. Bill Michalka, Jack Felts, Mary Gilmour, Leon Sherman.

Business Administration is a very broad field of study and contains many possible majors. The courses offered include those required by senior colleges at the freshman and sophomore level to obtain the degree of Bachelor of Business Administration. A business major should be aware of the opportunities, requirements and obligations in the various majors of specialization so that a proper choice for study can be made. A student should reserve the decision of choosing an area of emphasis depending on his own capabilities and interests. Suggested fields of study include accounting, advertising, banking, finance, business, teaching, various phases of management, insurance, retailing, marketing, statistical analysis, pre-law and policy, and environment.

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

Course of Study for Associate of Arts Degree

First Year

First Semester

Course	Sem. Hrs.
BA 1301	3
Engl 1311	3
Hist 2301	4
Math 1302	3
Psy 1201	2
PE	1
*Science	4

Second Semester

Course	Sem. Hrs.
Engl 1312	3
Hist 2302	3
Math 1303	3
PE	1
*Science	4
Spch 2340	3

Second Year

Third Semester

Course	Sem. Hrs.
BA 2401	4
Eco 2301	3
Engl (Sophomore Level)	3
Govt 2301	3
Math 2301	3
PE	1

Fourth Semester

Course	Sem. Hrs.
BA 2402	4
Eco 2302	3
EDP 1401	3
Govt 2302	3
PE	1
Psy 1301 or Soc 1301	3
**Approved Elective	3

*Chemistry, Biological, Physical, or Geological. Must have a laboratory requirement.

**Approved Electives: BA 2311, BA 2312, EDP 2401, EDP 2402, Mgt 1301, Engl (Sophomore Level).

Accounting

The two-year accounting program is designed to prepare persons for employment at mid-level accounting positions such as full-charge bookkeeper, accounts receivable or accounts payable clerk, payroll clerk, accounting technician, and other similar accounting positions.

NOTE: Some courses may not transfer to senior institutions.

Course of Study for Associated of Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
BA 1301	3	BA 2402	4
BA 2401	4	Psy 1301	3
Math 1301	3	EP 1301	3
Psy 1201	2	BA 2311	3
PE	1	PE	1

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BA 2303	3	BA 2304	3
BA 2305	3	BA 2306	3
Eco 2301	4	Govt 2302	3
Govt 2301	3	Eco 2302	3
Science	4	*Approved Elective	3

*Approved Elective: Math 1302, EDP 1400, EDP 1401, EDP 1403, BA 2312, OE 1207, Engl 2330. Engl (Sophomore Level).

General Business

BA 1301 Introduction to Business (3-0) ..... 3 hours
A general survey of the various fields of opportunity in business and industry is made with special emphasis on the aptitudes and the skills required to be successful in these areas. The course includes methods and practices of businessmen and the contribution of business to our society. Prerequisite: None.

Accounting

BA 1304 Elementary Accounting (3-0) ..... 3 hours
This course is for non-business and non-accounting majors. It is an introduction to the basic theory of double-entry accounting as it applies to the single proprietorship. Emphasis is placed on the complete accounting cycle with special emphasis on forms and procedures, analysis of business transactions, and financial statements. The course may not be accepted for credit by all senior colleges. Prerequisite: None.

BA 1305 Introduction to Managerial Accounting (3-0) ..... 3 hours
The emphasis in this course is on managerial uses of accounting data. Topics covered include information systems, financial statements, budgets, controls, analytical techniques and interpretations, and limitations of managerial systems and reports. Prerequisite: None.

BA 2303 Intermediate Accounting (3-0) ..... 3 hours
The recording and reporting process is studied with emphasis on the accounting principles underlying the balance sheet, income statement, and statement of retained earnings. Other topics studied include matching costs and revenue; intangible assets, deferred assets; cash, receivables, inventors valuation, and investments. Prerequisite: BA 2402.

BA 2304 Intermediate Accounting (3-0) ..... 3 hours
Continues the studies begun in BA 2303 by exploring topics involving financial statement reporting and disclosure. Subjects include intangible assets; current, contingent and long-term liabilities; paid-in capital and retained earnings; the statement of changes in financial position; earnings per share statements; the uses of comparative data and special measurements and analysis; statements from incomplete records; and errors and their corrections. Prerequisite: BA 2402.

BA 2305 Federal Tax Accounting for Individuals (3-0) ..... 3 hours
Topics concerning the theory of tax problems, income tax forms, current Federal Revenue Acts, and application of Federal Tax legislation to everyday personal and business questions are covered in this course. Prerequisite: BA 2402 or consent of instructor.

BA 2306 Elementary Cost Accounting (3-0) ..... 3 hours
Principles and techniques of accounting are studied to determine costs of material, labor, and burden under job costs and by continuous process and assembly systems. Consideration is given to prime costs, budgeting, controls, and decision making. Prerequisite: BA 2402.

BA 2401 Principles of Accounting (3-3) ..... 4 hours
This course presents the introduction to principles of accounting for proprietorships, the accounting cycle and systems, inventories, deferrals and accruals, and payroll systems. Two practices sets are required during the semester. Prerequisite: None.

BA 2402 Principles of Accounting (3-3) ..... 4 hours
This course presents the principles of accounting for partnerships and corporations; accounting for manufacturing and job orders; financial statements and their analyses. Two practice sets are course requirements. Prerequisite: BA 2401.

Business Law

BA 2311 Business Law (3-0) ..... 3 hours
A study is made of legal implications of the average business transaction. Special attention is given to the laws of contracts, agency, employment, negotiable instruments, personal property, bailments, transportation, and sales of personal property. Prerequisite: None.

BA 2312 Business Law (3-0) ..... 3 hours
This course is a continuation of the principles of law with particular emphasis on insurance, suretyship and guaranty, partnerships and unincorporated organizations, corporations, real property, mortgages, leases, trusts and decedents' estates, bankruptcy, torts, and crimes. Prerequisite: None.

Mathematics for Business Administration

Math 1301 Elementary Mathematics of Finance (3-0) ..... 3 hours
Skill and accuracy is to be developed in the fundamental mathematical problems of business. Topics studied include cash sales, customer and payroll records, aliquot parts, percentage, interest, annuities, insurance, stocks, bonds, and graphs. Prerequisite: None.

Math 1302 College Algebra — Business (3-0) ..... 3 hours
This course provides an introduction to sets, functions, and the algebraic number system; inequalities; variation; logarithms; probability; determinants; and quadratics. Problem solving involves business and decision making applications. Prerequisite: Math 1313 or demonstrated proficiency in algebra.

Math 1303 Mathematical Analysis for Business (3-0) ..... 3 hours
This course is designed to develop quantitative methods of analyzing business problems. Topics studied include set theory, symbolic logic, mathematical relationships, vectors and matrices, break-even interpretations, linear programming, probability, expected value, and usage of these topics as an aid to formulating business decisions. Prerequisite: Math 1302 or demonstrated proficiency in college algebra.

Math 2301 Business Statistics (3-3) 4 hours
The course provides an introduction to the techniques of collection, presentation, analysis, and interpretation of numerical data. Application of correlation methods, analysis of variance, dispersion, sampling, quality control, reliability, mathematical models and programming are stressed. Prerequisite: Math 1303.

Chemistry and Physical Science

Faculty
Dr. Don Taylor, chairman; Glen Richardson, Mary Richardson.

Chemistry

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

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

Course of Study for Certificate of Completion in Chemistry

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Chem 1301 and 1101	4	Chem 1201	2
Engl 1311	3	Chem 1302 and 1102	4
Hist 2301	3	Engl 1312	3
Math 1345	3	Hist 2302	3
Psy 1201	2	Math 2331	3
PE	1	PE	1
		Phys 1403	4

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Chem 2301 and 2101	4	Chem 2302 and 2102	4
Govt 2301	3	Chem 2303 and 2103	4
Lang 1411	4	Govt 2302	3
Math 2333	3	Lang 1412	4
PE	1	PE	1
Phys 2401	4	Phys 2402	4

To receive the Associate in Science Degree, the student must complete 12 hours of English.

Chem 1101 Fundamentals of Chemistry Laboratory I (0-3)..... 1 hour
Laboratory which will illustrate and reinforce principles and concepts of Chem 1301 by use of quantitative experiments, emphasizing interpretation and reporting of data, and facility in handling scientific equipment. Corequisite or Prerequisite: Chem 1301.

Chem 1102 Fundamentals of Chemistry Laboratory II (0-4)..... 1 hour
Laboratory which will illustrate and reinforce principles and concepts of Chem 1302 by use of qualitative and quantitative experiments, emphasizing interpretation and reporting of data, and facility in handling scientific equipment. Corequisite or Prerequisite: Chem 1302.

Chem 1201 Chemical Calculations (2-0)..... 2 hours
Lecture course which is designed as a calculations course for chemistry and chemical engineering majors. This course reviews the mathematics necessary for basic chemistry courses and then applies these mathematical techniques to solving chemical problems. Prerequisite: Chem 1301.

Chem 1301 General Inorganic Chemistry I (3-0)..... 3 hours
Lecture course which is designed as a first college transfer course for students with some background in physical science. This course covers such topics as atomic structure, formulas, equations, gas laws, solutions, etc. Prerequisite: None. Credit probably not transferable until Chem 1101 is successfully completed.

Chem 1302 General Inorganic Chemistry II (3-0)..... 3 hours
Lecture course which is a continuation of Chem 1301. Some topics covered in this course include chemical kinetics, equilibrium, coordination chemistry, radio chemistry, and organic and biochemistry. Prerequisite: Chem 1301. Credit probably not transferable until Chem 1102 is successfully completed.

Chem 2101 Organic Chemistry Laboratory I (0-4)..... 1 hour
Laboratory course which will illustrate and reinforce principles and concepts of Chem 2301 by use of preparative experiments of organic compounds. Corequisite or Prerequisite: Chem 2301.

Chem 2102 Organic Chemistry Laboratory II (0-4)..... 1 hour
Laboratory course which will illustrate and reinforce principles and concepts of Chem 2302 by use of preparative experiments of organic compounds. NMR and IR as applicable to organic compound identification will be covered. Corequisite or Prerequisite: Chem 2302.

Chem 2103 Analytical Chemistry Laboratory I (0-4)..... 1 hour
Laboratory course which illustrates and reinforces principles and concepts of Chem 2303 by use of quantitative experiments. Corequisite or Prerequisite: Chem 2303.

Chem 2201 Organic Nomenclature (2-0)..... 2 hours
Lecture course which is a systematic study of the rules of nomenclature for organic molecules. International Union of Pure and Applied Chemistry rules will be emphasized; common names will also be covered. Prerequisite: Chem 1302. Corequisite: Chem 2301 or permission of instructor.

Chem 2301 Organic Chemistry I (3-0)..... 3 hours
Lecture course which is a mechanistic approach to an integrated study of aliphatic and alicyclic hydrocarbon compounds and their derivatives. Prerequisite: Chem 1302. Corequisite: Chem 2201 or permission of instructor. Credit probably not transferable until Chem 2201 is successfully completed.

Chem 2302 Organic Chemistry II (3-0)..... 3 hours
Lecture course which is a continuation of Chem 2301; a mechanistic approach to an integrated study of aromatic hydrocarbons and their derivatives. Also included are introductions to biochemistry and instrumental methods applicable to organic chemistry. Prerequisite: Chem 2301. Credit probably not transferable until Chem 2102 is successfully completed.

Chem 2303 Analytical Chemistry I (3-0)..... 3 hours
Lecture course which is a study of the fundamental principles of elementary quantitative analysis, both theory and practical. Some topics covered are review of stoichiometric relationships, gravimetric analysis, and volumetric analysis. Corequisite or Prerequisite: Chem 1302. Credit probably not transferable until Chem 2103 is successfully completed.

Physical Science

Physical Science is a survey course of the physical sciences (Physics, Chemistry, Geology, anbd Astronomy); intended to satisfy a science requirement for the non-science majors. The emphasis throughout is on the nature of science as a creative human enterprise; the key role which it plays in modern society; its relationship to technology and thereby to the environment; and the human qualities of scientists and their social responsibility. The course assumes no prior work in science, and the mathematical level in general is no more advanced than arithmetic and simple algebra.

PhSc 1101 Physical Science Laboratory I
(0-3) ..... 3 hours
Laboratory which will illustrate and reinforce principles and concepts of PhSc 1301 by use of individual experiments, emphasizing techniques of handling scientific equipment and analysis of data acquired. Corequisite: PhSc 1301.

PhSc 1102 Physical Science Laboratory II
(0-3) ..... 3 hours
Laboratory which will illustrate and reinforce principles and concepts of PhSc 1302 by use of individual experiments, emphasizing techniques of handling scientific equipment and analysis of data acquired. Corequisite: PhSc 1302.

PhSc 1301 Physical Science I
(3-0) ..... 3 hours
Lecture course which is designed to satisfy a physical science requirement for liberal art, elementary education, etc. majors. This course will concentrate on systems of measurement as related to the physical laws (Physics) and chemical laws (Chemistry). Corequisite: PhSc 1101.

PhSc 1302 Physical Science II
(3-0) ..... 3 hours
Lecture course which is designed to satisfy a physical science requirement for liberal art, elementary education, etc. majors. This course will concentrate on the laws and concepts of Geology and Astronomy. Corequisite: PhSc 1102.

Child Development

Faculty
Mary Joyce Harding, chairman; Maryln Hair, Carla Wells.

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

The Associate Degree program in Child Development will provide an opportunity for an in-depth study of the whole child. In the certificate program, the student will concentrate on the special area of Child Development. For the students employed in child care centers, all lab activities can be done at their places of employment.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
CD 1301	3	CD 1303	3
CD 1302	3	CD 1402	4
CD 1305	3	CD 1306	3
CD 1401	4	CD 1304	3
Spch 2340 or 2360	3	Engl 1311 or More Advanced	3
Psy 1201	2		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
CD 2304	3	CD 2301	3
CD 2303	3	CD 2306	3
CD 2305	3	CD 2601	6
Math 1301	3	Govt 2301 or 2302	3
*PE 1303	3		
**Approved Elective	3		

*PE 1303, recommended; H.Ed. 1301 may be substituted.
**Approved Elective: CD 2302, CD 2307, or DR 2355.

Certificate Plan in Child Development

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
CD 1301	3	CD 1303	3
CD 1302	3	CD 1402	4
CD 1305	3	CD 1306	3
CD 1401	4	CD 1304	3
CD 2305	3	CD 2306	3

CD 1301 Parenting (3-0) ..... 3 hours
This course looks at marriage, family planning, physical and psychological preparation for parenthood, pregnancy, and delivery. The class members learn various ways of helping children grow toward emotional, social and intellectual maturity. Methods of helping children develop self-confidence, competence, and integrity are discussed. The special problems of infants, preschoolers, school-age children, and adolescents are explored. Prerequisite: None.

CD 1302 Introduction to Child Development (2-2) ..... 3 hours
This course introduces the student to the profession of teaching in the preschool with emphasis on the adult-child relationship. Guidance techniques will be emphasized. An exploration of career opportunities in child development and related fields will be provided in relationship to an introduction to the world of work. Prerequisite: None.

CD 1303 Child Health Care (2-2) .... 3 hours
This course concentrates on general principles of personal and community health. Major emphasis is placed on health supervision of the child during infancy, preschool and school years with protection against communicable diseases and accidents. Also included are the relationships of socio-economic problems to child health. Prerequisite: None.

CD 1304 The Abused and Neglected Child (3-0) ..... 3 hours
This course is designed to educate the individual in the physical, psychological and emotional aspects of child abuse. Prerequisite: None.

CD 1305 Creative Art, Music and Movement in Preschool Education (2-3) .. 3 hours
Study of creative arts, music, and movement for the young child is presented. Individual projects are planned and presented in the school laboratory. Prerequisite: None.

CD 1306 Child Nutrition (2-3) ..... 3 hours
The course emphasizes how food and feeding contribute to and affect child growth, development and learning. Included is the planning, selection and serving of food to meet children's needs at all levels of development; how children learn and develop desirable

eating habits; and examining the nutritive values of foods, purchasing, storage, safe handling and sanitation. Prerequisite: None.

CD 1401 Child Growth and Development I, Infant through Three (3-3) ..... 4 hours
Emphasis is placed upon the development processes and environment factors which shape the personality and affect the achievement of the child from birth through three years of age. Laboratory requirements consist of observation and study of preschool children. Prerequisite: None.

CD 1402 Child Growth and Development II, Ages 4 through 9 (3-3) ..... 4 hours
This is a study of the young child as a person and the influence of his environment in the early years as the child grows and develops within himself, his family, and his community. Prerequisite: None.

CD 1403 Special Problems I (2-6) ..... 4 hours
This course is designed to provide leadership and guidance for students involved in special projects. Activities may include movement through CDA modules, portfolio construction and/or other special assignments. Registration requires written permission of department chairperson, enrollment and completion of 6 hours of child development and/or work experience with young children. Prerequisite: Permission of the department chairman.

CD 2301 Personal and Family Management (3-0) ..... 3 hours
Development and relationships of individual family members are studied. The changing role of the female in society and the family will be discussed in addition to the stages of the family life cycle. Management techniques as applied to the individual and family will be introduced. These techniques include time management, money management, and related topics. Prerequisite: None.

CD 2302 Management Systems in Preschool Centers (2-3) ..... 3 hours
Emphasis of this course will be on the practical aspects of managing a preschool center. A management system for centers will be developed by each student. This includes budgeting, record keeping, food, health and referral services, and personnel practices. Prerequisite: None.

CD 2303 Planning and Teaching Methods in Early Childhood (2-3) ..... 3 hours
This course will include planning for children's programs and activities and incorporate methods which can be used to meet the goals of children's programs. Students will also work with methods of evaluation of young children. Prerequisite: None.

CD 2304 The Special Child (2-3) .... 3 hours
This course presents techniques for identifying and serving the child with a special need. Included are studies of physical, emotional, language and/or mental disabilities. Constructing the preschool environment in a manner that will enable the child with special needs to function to his maximum capabilities within the group structure will also be emphasized. Ways of working with the parents of the special child in order to bring out the maximum home-center coordination will be emphasized. Prerequisite: None.

CD 2305 Literature and Language Development (2-3) ..... 3 hours
This course introduces language development techniques for the development of early childhood language experiences in listening, speaking, and readiness for reading and writing. Included are criteria for selecting and using children's literature in the preschool. Methods of story writing and story telling with and without audio-visual aids will be introduced. An introduction to bilingual language development will be included. Prerequisite: None.

CD 2306 Science and Math Activities for Children (2-3) ..... 3 hours
This course is an attempt to apply the scientific approach to a child's world. It will include lectures and laboratory activities designed to acquaint the child with nature, ecology and the world around him. Math concepts such as forms, shapes, etc. will be included. Prerequisite: None.

CD 2307 Infant and Toddler Activities (2-2) ..... 3 hours
This course is designed to give insight into the joys and problems of working with infants and toddlers. Emphasis will be placed on physical and emotional needs of children under two years of age with suggested activities to encourage proper developmental growth. Prerequisite: None.

CD 2408 Special Problems II (2-6) ..... 4 hours
This course is a continuation of CD 1403 and may include completion of CDA modules, the assessment process and/or other special assignments.

Registration requires written permission of the department chairperson, enrollment and/or completion of 6 hours of child development and/or work experience with young children. Prerequisite: Permission of the department chairman.

CD 2601 Application of Learning Theories (0-18)..... 6 hours
The student enrolled in the course must show evidence of being a competent child care worker before a passing grade can be awarded. Prerequisite: 24 hours of Child Development, including CD 1305, 1401, 2302, 2305, 2306 and permission of instructor. A grade of "C" or better is required.

Communication and Theatre

Faculty
Darlyne Ervin, chairman; Tom Barnett, TV; Jane Ann Crum, drama; Wally Jackson, radio; Bill Murchison, photography; Dr. Don Nichols, speech; John McCarroll, journalism.

The Department of Communication and Theatre acknowledges those arts and skills fundamental to the human potential. Its purpose is to illuminate the impact of communication and theatre arts on contemporary behavior and to promote the successful functioning of individuals within a complex cultural milieu. The fields in this department are inherent to virtually all of man's occupational, political, and social endeavors. Therefore, the department seeks primarily to further the nature of man as an educated and cultured being, capable of adjusting and contributing to the world in which he lives.

Drama

The Drama Department of the College offers fundamental courses in theatre arts to three types of students: those preparing to teach drama, those preparing for careers in professional theatre, and those wishing to expand their avocational interests in the arts and literature of the theatre.

While the course work done in the department is basically that done in the first two years of senior colleges and universities, it is the responsibility of the student to become aware of the particular requirements of the school to which he will transfer.

The department is a member of the American Educational Theatre Association, the Texas Educational Theatre Association, and the Southwest Theatre Conference.

Each year the college theatre presents a season of major and studio productions in which all drama student participate.

Course of Study for Major in Drama*

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Dr 1111	1	Dr 1112	1
Dr 1123	1	Dr 1124	1
Psy 1201	2	***Engl 1312	3
Dr 1310	3	Dr 1315	3
Engl 1311	3	Dr 1340	3
Dr 1314	3	Dr 2360	3
Dr 1330	3	Elective	3
**Elective	3	***Engl 1312 (Film) recommended	
**Foreign Language, Math, or Science			

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Dr 1125	1	Dr 1126	1
Dr 2111	1	Dr 2112	1
Dr 2330	3	Govt 2302	3
Govt 2301	3	Hist 2302	3
Hist 2301	3	Dr 2340	3
Engl (Sophomore Level)	3	Dr 2370 or Dr 1320	3
Elective (Spch 2320 recommended)	3	Engl (Sophomore Level)	3

*Those students wishing to fulfill requirements for the Associate in Arts or the Associate in Fine Arts Degree should consult Degree Requirements listed in the catalog.

Course of Study for Minor in Drama

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Dr 1111	1	Dr 1112	1
Dr 1310	3	Dr 1340	3
Dr 1330	3	Dr 2360	3

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Dr 1314	3	Dr 1315	3
Dr 2111	1	Dr 2112	1
Dr 2330	3	Dr 2340	3

Drama

Dr 1111, 1112, 2111, 2112 Rehearsals and Performance (0-2) ..... 1 hour each
These courses are required of students registered for drama. They are laboratory courses in which drama students will be assigned to the cast or crews of each show. Prerequisite: None.

Dr 1123, 1124, 1125, 1126 Modern Dance: Theatre Dance Form (0-3) ..... 1 hour each
These courses are designed to teach the student dance for the theatre. Prerequisite: None.

Dr 1310 Introduction to the Theatre (3-0) ..... 3 hours
This course is a general survey of the major field of theatre art and an introduction to various types and styles of plays. Practical experience in play production is required. Prerequisite: None.

Dr 1314 Acting I (3-0) ..... 3 hours
Basic skills and techniques of acting are developed via work of voice, body, and imagination. Exercises in creative play, improvisation, and pantomime are practiced. Prerequisite: None.

Dr 1315 Acting II (3-0) ..... 3 hours
A continuation of Acting I, this course introduces beginning character study, period acting styles, and more advanced scene work for the student actor. Prerequisite: Dr 1314.

Dr 1320 Stage Makeup (0-3) ..... 3 hours
This course deals with the basic principles of applying theatrical makeup. It is open to all drama students. Prerequisite: None.

Dr 1330 Stagecraft I (3-3) ..... 3 hours
All basic aspects of stagecraft, costume, and make-up are covered in three lectures a week, with laboratory hours to be arranged to provide practical experience on production crews. Prerequisite: None.

Dr 1340 Stagecraft II (3-3) ..... 3 hours
This course is a continuation of Dr 1330 with advanced study in aspects of stagecraft and design concerned with the production of sets, costumes, makeup, and props for dramatic productions in theatre. The course work is covered in three lectures per week plus three laboratory hours. Prerequisite: Dr 1330.

Dr 1350 Theatre Workshop I (1-5) ... 3 hours
This course includes all phases of play production activities (acting, stage managing, scenery, properties, lighting, costumes, publicity, and box-office) by actually working in a play from rehearsal to production. Prerequisite: None.

Dr 2330 History of the Theatre I (3-0) ..... 3 hours
This survey of the theatre, from its beginning to the 18th century, presents a study of drama in each period as a part of the total culture of the time. Plays of important authors are read. Prerequisite: None.

Dr 2340 History of the Theatre II (3-0) ..... 3 hours
This course is a study of the modern theatre including American, English, and Continental plays from the 18th century to the present. Prerequisite: None.

Dr 2350 Theatre Workshop II (1-5) ..... 3 hours
This course includes special phases of theatrical participation: Children's Theatre, creative dramatics, advanced scene study, and design projects. The course will be offered to meet the special needs of advanced students. Prerequisite: Dr 1314, Dr 1315, and Dr 1330.

Options

Dr 2151 Children's Theatre Workshop (1-5) ..... 1 hour
This five-week workshop is designed to meet the special needs of the actor when performing a play for children. The course entails the actual presentation and study of a play written for children. Prerequisite: Dr 1314, Dr 1315, and Dr 1330.

Dr 2152 Advanced Scene Study (1-5) ..... 1 hour
This is a five-week course for the advanced study of characterization, play analysis, and portrayal of scenes for a selected audience. Prerequisites: Dr 1314, Dr 1315, and Dr 1330.

Dr 2153 Design Project (1-5) ..... 1 hour
This is a five-week supervised design project in costuming, lighting, and/or set design. Prerequisites: Dr 1314, Dr 1315, and Dr 1330.

Dr 2355 Creative Dramatics (3-0) ... 3 hours
This course is designed to help teachers develop skills that will enable them to work with the development of the whole child through improvised drama. Special attention is given to story dramatization, dramatic play situations, storytelling, and using these skills with the pre-school, elementary, and special education child. This course is open to all majors and non-majors. Prerequisite: None.

Dr 2360 Voice and Diction (3-0) ..... 3 hours
The course deals with basic principles of diction, voice development, and interpretation. Intensive application through classroom exercises and special projects meets individual needs and professional objectives. It is necessary to master the International Phonetic Alphabet. Prerequisite: None.

Dr 2370 Training the Actor's Voice (3-0) ..... 3 hours
This course includes vocal production, beginning work in stage dialects, and practical application of audition techniques. Prerequisite: Spch 2360, Dr 2360, or R/TV 2360.

Journalism

Journalism courses at the college seek to give a practical foundation in basic communication skills necessary for admittance to a senior college major program in journalism. A variety of courses is offered, including reporting, editing, photography, and active production of school publications. As elective courses for non-majors, these courses serve as outlets for creative talent and school service. Also, these classes aid students in various other fields of endeavor.

Course of Study for Associate in Arts Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Jour 1111	1	Jour 1131	1
Jour 1311	3	Lang 1412	4
Lang 1411	4	OE 1401 or More Advanced	4
Psy 1201	2	Jour 1312	3
PE	1	PE	1
Spch 1310	3		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Govt 2301	3	Govt 2302	3
Jour 2111 or 2131	1	Jour 2112 or 2132	1
Jour 2310	3	MCom 1300	3
Lang 2311	3	Lang 2312	3
Phot 1331	3	Phot 1332 or Approved Elective	3
PE	1	PE	1

Journalism

Jour 1111, 1112, 2111, 2112 Newspaper Laboratory (0-2) ..... 1 hour each
Students earn credit by working on the staff of the campus newspaper, The Roundup. Participation is required of Journalism 1311, 1312 and 2310 students. Any student may register for Newspaper Laboratory only with consent of instructor. Prerequisite: None.

Jour 1131, 1132, 2131, 2132 Magazine Laboratory (0-2) ..... 1 hour each
Students earn credit by working on the staff of the campus magazine, Scene Today. Participation is required of Journalism 1312 students. Any student may register for Magazine Laboratory only with consent of instructor. Prerequisite: None.

Jour 1311 Reporting I (3-3) ..... 3 hours
This course is an introduction to the fundamentals of newswriting. Emphasis is on the development of news judgment and a clear, concise writing style. Lectures, discussions and in-laboratory work provide training under deadline pressure in organizing and writing a variety of basic news stories. There are three hours of lecture and three hours of laboratory work each week, as well as participation on the staff of the campus newspaper. Prerequisite: None.

Jour 1312 Reporting II (3-3) ..... 3 hours
This course emphasizes specialized fields of reporting: feature writing, magazine article writing, governmental and political reporting, courtroom reporting and analytical writing. There are three hours of lecture per week, as well as participation on either the staff of the campus newspaper or on the campus magazine. Prerequisite: Jour 1311 or consent of the instructor, and basic typing skills.

Jour 2310 News Editing and Reporting (3-3) ..... 3 hours
This course is an introductory study of news gathering, news writing, copy editing for errors of fact, and interpretation of English and newspaper style. Headline writing, proofreading, and page makeup are stressed. There are three hours of lecture and three hours of laboratory work each week, as well as participation on the staff of the campus newspaper. Prerequisite: Jour 1312.

MCom 1300 Introduction to Mass Communications (3-0) ..... 3 hours
This course is a survey of basic factors affecting human interaction through mass communication, as well as an examination of the evolution of today's concepts in mass communications. Prerequisite: None.

Phot 1350 Photojournalism (2-4) ... 3 hours
In this specialized course the students learn basic aspects of newspaper photography with some emphasis on photojournalism. Actual practice is gained through working on the campus newspaper. Prerequisite: Phot 1332 or consent of the instructor.

Commercial Photography

Photography courses at the college seek to train the student in the basics of photography as a subject, photography as a profession, and in photographic technology. A variety of courses is offered, including professional portraiture, lab technology, commercial technique, and various aspects of color. Opportunities are provided for use of the student's creative talents.

Following completion of the Commercial Photography curriculum, the student will be prepared for entry positions in the photographic industry.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BA 1301	3	Math 1301	3
Engl 1311	3	Engl 1312 or Spch 2340	3
Psy 1201	2	BA 1305	3
Phot 1331	3	Phot 1332	3
Phot 1361	3	Phot 1362	3
Spch 1310	3	*PE	1
*PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Govt 2301 or 2302	3	Engl 2330	3
BA 2311	3	Phot 2312	3
Phot 2311	3	Phot 2332	3
Phot 2331	3	Phot 2372	3
Phot 2371	3	**Approved Elective	3

*PE 1301 may be substituted for the two 1-hour physical education courses.
**Approved electives: Phot 1350, Phot 2200, Phot 2340, Phot 2360, Phot 2380, Phot 2390, MCom 1300, Mgt 1301, or Mgt 2303.

Photography

Phot 1331 Basic Photography I (2-4) ..... 3 hours
This beginning course introduces the student to the basic applied and aesthetic aspects of photography. The course content includes a study of basic theories of film, exposure, development, filters, and printing. Prerequisite: None.

Phot 1332 Basic Photography II
(2-4)..... 3 hours
This course is a continuation of Photography 1331 and is designed for additional experience in the photographic medium. Prerequisite: Phot 1331.

Phot 1350 Photojournalism (2-4)... 3 hours
In this specialized course the student learns the basic aspects of newspaper photography with some emphasis on photojournalism. Actual practice is gained through working on the campus newspaper and the college magazine. Prerequisite: Phot 1332 or consent of instructor.

Phot 1361 Photo Lab Technique I
(2-4)..... 3 hours
This course has been designed to give the student experience in darkroom printing and developing procedures. The successful completion of this course will qualify the student to work as a lab technician in the photographic industry. Included in the semester's work will be projection printing, contact printing, black and white print finishing, toning and the mixing of photographic chemistry. Prerequisite: Phot 1332.

Phot 1362 Photo Lab Technique II
(2-6)..... 3 hours
This course is a continuation of Photography 1361 and is designed to give the student additional experience in photo lab work. Prerequisite: Phot 1361 or consent of instructor.

Phot 2200 Print Finishing and Negative Retouching (1-2)..... 2 hours
This course will be concerned with print finishing and negative retouching. Most of the time will be spent in the field of color work since this is the major emphasis of present-day studio work. Prerequisite: None.

Phot 2311 Commercial Photography I
(2-6)..... 3 hours
The basics in this course will give the student a working knowledge in the specialized field of commercial photography with emphasis given to the use of a large negative format and the view camera. Photographic problems will include magazine article illustration, product photography, fashion, architectural studies and window displays. Prerequisite: Phot 1332 and Phot 1362.

Phot 2312 Commercial Photography II
(2-6)..... 3 hours
This course will provide additional experience in the commercial field and is a continuation of Photography 2311. Prerequisite: Phot 2311.

Phot 2331 Portrait Photography I
(2-4)..... 3 hours
This will be two semesters of learning the basics of professional portraiture. This first semester will deal basically with studio type portraits. The student will practice by making photographs through actually working with adult and children models. Prerequisite: Phot 1332.

Phot 2332 Portrait Photography II
(2-4)..... 3 hours
This course will be a continuation of Photography 2331. Additional experience will be gained in the area of studio portraiture and emphasis will be given to outdoor portraiture. Prerequisite: Phot 2331.

Phot 2340 Salon Photography
(2-4)..... 3 hours
This course includes the making of salon prints, using such subjects as landscapes, classical portraits, environmental photography, character studies, and documentary photography. The student will be expected to present an extensive portfolio of his semester's work. Prerequisite: Phot 1332.

Phot 2360 Expressive Photography
(2-4)..... 3 hours
The students is given an opportunity to explore the formal, personal, and individual uses of photography. The student's goal will be the personal development of the art of seeing, and capturing, what is seen through the photographic process. Prerequisite: Phot 1332.

Phot 2371 Color Photography I
(2-4)..... 3 hours
The first semester of this course will consist of taking photographs with color film, both negative and transparency, and the basics of color printing. Prerequisite: Phot 1332.

Phot 2372 Color Photography II
(2-4)..... 3 hours
This will be a continuation of the first semester of color photography, Photography 2371, with additional work being given in the area of sensitometry and advanced lab technique. Prerequisite: Phot 2371.

Phot 2380 Photographic Problems
(1-5)..... 3 hours
This course, with the approval of and under the direct supervision of the instructor, allows the advanced student to pursue a particular project or theme utilizing the photographic process. Weekly progress reports will be man-

datory. This course will be offered alternately with Phot 2340 and Phot 2360. Prerequisite: Phot 1332 and Phot 1362.

Phot 2390 Graphics (2-4)..... 3 hours This will be a one-semester course designed to teach advanced copying work and the use of special copy works and the use of special copy cameras. Work will be done in copying of continuous tone and line drawings. The student will learn layout makeup and the use of specialized films and developers. Prerequisite: Phot 1332.

Radio — Television

An outstanding "plus" for the radio-television student at the college is the opportunity to work in the college-owned and operated FM radio station. KOCV-FM is an educational, non-commercial radio station designed to entertain and enlighten area and campus listeners.

In the area of television, a considerable amount of TV programming is being done in conjunction with Cablevision of Odessa.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Dr 1310	3
Math 1313 or More Advanced	3	Engl 1312 or Spch 2340	3
Psy 1201	2	Hist 2302	3
PE	1	PE	1
Radio 1111	1	Radio 1112	1
R/TV 1310	3	R/TV 1320	3
Spch 1310	3	Spch 2320	3
TV 1131	1	TV 1132	1

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Mgt 1301	3	MCom 1300	3
Mu 1328	3	Radio 2112	1
Radio 2111	1	R/TV 2320	3
R/TV 2310	3	R/TV 2330	3
R/TV 2360	3	Govt 2301 or 2302	3
TV 2131	1	TV 2132	1

Radio — Television

Course of Study for Associate in Applied Science Degree
Announcer-Operator Option*

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	ET 1403	4
ET 1401	4	ET 1404	4
Math 1313 or More Advanced	3	Math 1341 or More Advanced	3
Psy 1201	2	PE	1
PE	1	Radio 1112	1
Radio 1111	1	R/TV 1320	3
R/TV 1310	3	TV 1132	1
TV 1131	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
ET 2400	4	Engl 1312 or Spch 2340	3
ET 2201	2	ET 2404	4
ET 2401	4	Govt 2301 or 2302	3
Radio 2111	1	Radio 2112	1
R/TV 2310	3	R/TV 2320	3
TV 2131	1	TV 2132	1
R/TV 2330	3		

*This option is operated in conjunction with the Department of Electrical and Electronics Technology.

Radio — Television

R/TV 1310 Survey of Radio and Television (3-0) ..... 3 hours
This is a survey of the American system of broadcasting including personnel, equipment, terms, station and network organization. The student is given practical experience in station operation procedures. Prerequisite: None.

R/TV 1320 Fundamentals of Radio and Television (3-0) ..... 3 hours
This is a continuation of the history of broadcasting with emphasis on "inside" station operational procedures. Prerequisite: None.

R/TV 2310 Announcing for Radio and Television (3-0) ..... 3 hours
The course deals with the principles of voice production and the techniques of interpretation as they relate to broadcasting. The student, working with tape recorders, learns to properly announce commercial copy, news, interviews, and panel discussions. Prerequisite: None.

R/TV 2320 Writing for Radio and Television (3-0) ..... 3 hours
Mass media writing techniques are studied. Continuity writing of announcements and commercials is mastered, along with dramatic scripts, news programs, and the documentary. Prerequisite: None.

R/TV 2330 Radio and Television Production (3-0) ..... 3 hours
This is a study of radio production with emphasis on the problems posed by the documentary, panel, special event, music programs, and announcements. The course includes a study of television production techniques with emphasis on the creative aspects of the producer's problems. Prerequisite: None.

R/TV 2360 Voice and Diction for Radio and Television (3-0) ..... 3 hours
The course deals with basic principles of diction, voice development, and interpretation. Intensive application through classroom exercises and special projects is designed to meet individual vocal needs and professional objectives. It is necessary to master the International Phonetic Alphabet. Prerequisite: None.

Radio 1111, 1112, 2111, 2112 Radio Laboratory (0-5) ..... 1 hour each
These laboratory courses are for students who participate extensively in work at the campus radio station KOCV-FM. A minimum of one hour per day must be spent working at the station. Prerequisite: Approval of the faculty director to work at KOCV.

TV 1131, 1132, 2131, 2132 Television Laboratory (0-5) ..... 1 hour each
The laboratory courses are for students who participate intensively in basic television production at Odessa College. Projects include the production of educational, informational and instructional television programs on cable television. Prerequisite: Approval of the instructor.

Speech

Because of their relevance to all professional and social endeavors, speech courses are designed primarily to strengthen the oral communication abilities of students from all disciplines and fields of interest. A range of courses is offered to provide the theory, principles, and practice necessary to meet a wide variety of communication needs. In addition, courses fulfill the fundamental academic requirements for speech majors and minors as well as requirements and elective options for students from other departments.

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

First Year

First Semester

Course	Sem. Hrs.
Engl 1311	3
Hist 2301	3
Psy 1201	2
PE	1
Science	3
Spch 1131	1
Spch 1310	3

Second Semester

Course	Sem. Hrs.
Dr 1310	3
Engl 1312	3
Hist 2302	3
PE	1
Science	3
Spch 1132	1
Spch 2360	3

Second Year

Third Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Govt 2301	3
Lang 1411	4
PE	1
R/TV 1310	3
*Spch 2131	1
Spch 2330	3

Fourth Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Govt 2302	3
Lang 1412	4
PE	1
*Spch 2132	1
Spch 2320	3

Speech

Spch 1310 Introduction to Speech Communication (3-0) ..... 3 hours
Theory and practice of speech communication in interpersonal, small group, and public communication situations are included in this course. Prerequisite: None.

***Spch 1131, 1132, 2131, 2132 Forensics Laboratory (0-2) ..... 1 hour each**
This laboratory prepares the student for intercollegiate speech competition. Prerequisite: None.

Spch 2320 Introduction to Oral Interpretation (3-0) ..... 3 hours
This course includes both theory and technique of oral interpretation of literature. The course includes preparation and presentation of selections including prose, poetry, and dramatic literature. Prerequisite: None.

Spch 2330 Argumentation and Debate (3-0) ..... 3 hours
Analysis and application of the fundamental principles and techniques of argumentation and debate are included in the course. Also included are research methods, use of evidence, argument construction, strategies, refutation, and logical thought processes. Prerequisite: None.

Spch 2340 Business and Professional Speech Communication (3-0). 3 hours
Theories and skills of speech communication as applied to business and pro-

*This is a laboratory that prepares the students for intercollegiate participation in the various types of speech contests. Participation in tournaments is required for credit.

fessional situations are included in this course. Prerequisite: None.

Spch 2360 Voice and Diction (3-0) ..... 3 hours
This course deals with basic principles of diction, voice development, and interpretation. Intensive application through classroom exercises and special projects is designed to meet individual vocal needs and professional objectives. It is necessary to master the International Phonetic Alphabet. Prerequisite: None.

Cosmetology

Faculty
Faye Morgan, chairman; Lou Ann Hitt, Donna Rogers.

Cosmetology courses at Odessa College seek to provide the student with the skill and knowledge required to pass the State Cosmetology Commission Examination for licensing in Texas, and for successful entry into the field of Cosmetology. All aspects of the beauty profession are presented and training is available for the Cosmetologist seeking an instructor's license. The program is designed around an open-entry-and-exit concept. A student may enroll in the program at any time during the year that a vacancy exists.

Program Outline For Cosmetology Operator

Course of Study for Associate in Applied Science Degree

First Year

Course	Sem. Hrs.	Course	Sem. Hrs.
Cos 2601	6	Cos 2604	6
Cos 2602	6	Cos 2605	6
Coa 2603	6	Cos 2606	6

Second Year

Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Biol 1401	4	Math 1311 or More Advance	3
Govt 2301	3	Mgt 1341	3
Psy 1301	3	Psy 2301	3
Psy 1201	2	PE	1
PE	1		

Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of thirty-six hours in Cosmetology courses.

Program Outline For Cosmetology Instructor

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Cos 2611	6	Cos 2613	6
Cos 2612	6	Cos 2614	6

Second Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Biol 1401	4	Math 1311 or More Advanced	3
Govt 2301	3	Mgt 1341	3
Psy 1301	3	Psy 2301	3
Psy 1201	2	Soc 1301	3
PE	1	PE	1

Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of thirty-two hours in Cosmetology courses.

Cos 2601 Orientation (5-27.5) ..... 6 hours
Introductory course to the field of cosmetology. Emphasis is placed on the basic principles and practices involving hair dressing. Attention is given to personality development, visual poise, good grooming, sanitation, and safety habits. Prerequisite: None.

Cos 2602 Introduction to Cosmetology (5-27.5) ..... 6 hours
The introductory course in cosmetology involves developing a fundamental knowledge and understanding of technical and related sciences and mathematics which find practical application in cosmetology. Developing an appreciation for safe work habits, orderly and systematic procedures for performing tasks relating to the field of cosmetology. Prerequisite or corequisite: Cos 2601.

Cos 2603 Cosmetology I (5-27.5) ... 6 hours
This course gives instruction of a preparatory type in the development of manipulative skills, knowledge and desirable attitudes to equip students for gainful employment in the field of cosmetology. Rules, regulations and preparation for the State Cosmetology Commission examination in order to obtain a license to practice cosmetology are stressed. Prerequisites: Cos 2601, Cos 2602.

Cos 2604 Cosmetology II (5-27.5) ... 6 hours
This course will teach the student to develop basic manipulataive skills involved in rendering personal beauty services. The instruction will include all skills pertaining to hairdressing, nail care and skin care. The student will be able to select wisely, care for, and use properly commerical products that are related to the application of beauty treatments. Prerequisites: Cos 2601, Cos 2602.

Cos 2605 Cosmetology III (5-27.5) .. 6 hours
In this course, the student will learn the basic principles of chemistry, especially those principles that will be important in their work as a Cosmetologist. The student will become familiar with chemicals that are used to do such things as color, straighten, and curl hair. Emphasis is placed on the basic chemical characteristics of the various kinds of cosmetics used in beauty salon. Prerequisites: Cos 2603, Cos 2604.

Cos 2606 Cosmetology IV (5-27.5) .. 6 hours
This course provides the student with important principles to be followed in planning a salon, including, location, space allotment and installation cost or knowledge regarding the financial aspects of salon operation, including operating expenses and the profit and loss statement are stressed. Student will become familiar with the types of insurance coverage needed by salon operators and with legal requirements with regard to wages, hours and working conditions. Prerequisites: Cos 2603, Cos 2604.

Cos 2611 Orientation and Lesson Plan Development (8-24.5) ..... 6 hours
A study to develop methods and techniques of teaching skills. Basic unit planning and daily lesson plan development are emphasized. Prerequisite: Cosmetology Operator's License.

Cos 2612 Practical Clinical Management (8-24.5) ..... 6 hours
A study to develop practical clinic management techniques. This study includes supervision of student skills in classroom situations. Prerequisite or Corequisite: Cos 2611.

Cos 2613 Classroom Teaching of Informational Theory (8-24.5) .. 6 hours
A study to develop methods and techniques of teaching informational theory relative to cosmetology. Prerequisite: Cos 2612.

Cos 2614 Preparation for State Cosmetology Commission (8-24.5) ..... 6 hours
A study designed to prepare the student to pass the Texas Cosmetology Commission examination of Cosmetology Instructor's License. Prerequisite: Cos 2613.

Certificate of Technology Programs

Manicurist Certificate Program (150 Clock Hours)

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

Cos 1301 Manicuring Specialization 3 hours
The student will learn all aspects of manicures and pedicures. Emphasis will be placed on the proper way to file nails, apply polish and give hand and arm massages. Successful completion will allow the student to test for state licensure as a manicurist.

Shampoo-Conditioning Specialist Certificate Program (300 Clock Hours)

A Shampoo Specialist license authorizes the holder to practice the art of shampooing, scalp manipulation, and scalp treatment. It also allows for the application of conditioners, rinses and shampooing hair goods in a licensed establishment.

Cos 1602 Shampoo and Conditioning Specialization ..... 6 hours
The student will learn all aspects of shampooing and conditioning of the hair. Chemistry of shampoos and conditioners and chemistry of the skin and scalp will be emphasized. Disorders of the skin, scalp and hair as well as treatment of these disorders will be included. Successful completion will qualify the students to test for state licensure as a Shampoo-Conditioning Specialist.

Diesel Mechanics

Faculty
Steve Mapes, chairman; Charles Payne.

The Diesel Mechanics program is designed to train the student to service diesel powered trucks, farm tractors, buses, construction equipment, and oil field equipment. Specific areas of training include: (1) major engine overhaul: (2) transmission overhaul; (3) rear axle assembly and drive line overhaul; (4) steering gear and linkage overhaul; (5) fuel injection system overhaul; (6) hydraulic system overhaul; (7) overhaul or replacement of auxiliary equipment such as generators, starters, alternators, switches, regulators, and other miscellaneous items; (8) troubleshooting procedures; and (9) shop management procedures.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
DM 1601	6	DM 1602	6
DM 1603	6	DM 1604	6
Engl 1311	3	Engl 1312 or Speech 2340	3
Psy 1201	2	*PE	1
*PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
DM 2601	6	DM 2602	6
DM 2603	6	DM 2604	6
Math 1313, 1321 or More Advanced	3	Govt 2301 or 2302	3

*H.Ed. 1301 may be substitued for the two 1-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight hours in DM courses.

DM 1601 Principles of Diesel Engines I (2-8) ..... 6 hours
An introduction to the basic principles and repair of high compression gasoline and diesel engines, cooling systems, and lubricating systems. The use and care of hand tools, precision instruments, and test equipment will be stressed. Prerequisite: None.

DM 1602 Principles of Diesel Engines II (2-8) ..... 6 hours
This course is a continuation of DM 1601, Principles of Diesel Engines I with emphasis on troubleshooting. Prerequisite: DM 1601.

DM 1603 Electrical Systems and Control Circuits (2-8) ..... 6 hours
An introduction to the basic principles of electricity. Repair and testing procedures for storage batteries, electric starters, generators, alternators, warning devices, lighting systems and switches. The use of electrical test equipment and dynamometer operation with emphasis on dynamometer tune-ups is included. Prerequisite: None.

DM 1604 Fuel Injection, Testing and Rebuilding (2-8) ..... 6 hours
This course provides theory and practice in repair, maintenance, and troubleshooting of fuel injection systems and components. Various types of fuel injection systems are covered including Cummins, Detroit, and Roosa Master. Prerequisite: DM 1602.

DM 2601 Transmissions, Power Trains and Accessories I (2-8) ..... 6 hours
This course provides theory and practice in repair and maintenance of transmissions, differentials, brakes and related assemblies. Various types of special units including pumps, gas and air compression machinery, turbochargers, super-chargers, and hydraulic equipment are studied. Prerequisite: DM 1601.

DM 2602 Transmission, Power Trains and Accessories II (2-8) ..... 6 hours
This course is a continuation of DM 2601, Transmissions, Power Trains and Accessories I. Prerequisite: DM 2601.

DM 2603 Advanced Diesel Repair I (2-8) ..... 6 hours
This course provides extensive shop practice in major engine overhaul, including fuel system analysis with emphasis on injector testing and timing. Troubleshooting procedures are also included. Prerequisite: DM 1602.

DM 2604 Advanced Diesel Repair II (2-8) ..... 6 hours
This course is a continuation of DM 2603, Advanced Diesel Repair I. Prerequisite: DM 2603.

Diesel Mechanics
Open-Entry, Clock-Hour Program

The open-entry, clock-hour program is a personalized instructional system designed to offer the student a concentrated individualized curriculum in basic skills. Block time programs meet 20 to 40 hours per week depending upon the course and the personal schedule of the individual. A student may register for the following program on any week day. Classes start each Monday. Enrollment may be limited to available space. An Associate Degree option is available. Detailed information and admission and registration forms are available in the office of the program director Steve Mapes, or Counseling Center.

Course No.	Course Name	Clock Hours	Semester Hours	Weeks
DM 1841	Introduction to Diesel Engines ..	220	8	11
DM 1942	Detroit Diesel Engines	280	9	14
DM 1943	Cummins Diesel Engines	280	9	14
DM 1944	Caterpillar Diesel Engines	280	9	14
DM 1445	Electrical Systems and Control Circuits	160	4	8
DM 1846	Transmissions, Power Trains & Accessories	240	8	12
DM 1847	Fuel Systems	240	8	12

Estimated cost of books and safety equipment — $100.

DM 1445 Electrical Systems & Control Circuits [(3-17) for 8 Weeks] ... 4 hours
This is an introductory course in electricity. Its language, usage, testing and repair are emphasized. All areas of D.C. circuitry applied to a vehicle will be studied. Starting systems, charging systems, lighting systems, instrumentation, accessories, troubleshooting, testing, and safety will be stressed. Prerequisite: None.

DM 1841 Introduction to Diesel Engines [(4-16) for 11 Weeks] ..... 8 hours
This course provides instruction on the correct use of tools and precision measuring instruments and the theory of operation of the many types of internal combustion engines in use today. The introductory phase covers the application and use of dial indicators, micrometers and calipers. Construction, application and trouble-shooting will be studied. Tune-ups on equipment using special tools and diagnostic methods is required. Personal and shop safety will be observed at all times. Prerequisite: None.

DM 1846 Transmissions, Power Trains, and Accessories [(2-18) for 12 Weeks] ..... 8 hours
Power Trains, drive line components, and accessories will be studied. Students will be required to remove, disassemble, inspect, evaluate, repair and/or rebuild, reassemble, and test all components. "Live" work will be used when possible. Safety will be stressed in the laboratory and classroom. Prerequisite: None.

DM 1847 Fuel Systems [(4-16) for 12 Weeks] ..... 8 hours
This is an introductory course to fuel injection systems, language, troubleshooting, testing, and practical applications. The fuel systems may be taken separately to meet student requirements. Students working toward a degree program will be required to complete all systems. The systems to be studied are Detroit, Caterpillar, Cummins, Roosa-Master, American Bosch, and C.A.V. Fuel injection pump and nozzle rebuild techniques will be emphasized. "Live" equipment will be used when possible. Safety will be stressed in the classroom and laboratory. Prerequisite: DM 1841, DM 1942, DM 1943, DM 1944, or industrial experience.

DM 1942 Detroit Diesel Engines [(3-17) for 14 Weeks] ..... 9 hours
This block of instruction is to introduce the student to the Detroit Diesel Engine. All major and minor components will be disassembled, evaluated, repaired, and/or rebuilt according to manufacturer's specifications. Included in the study will be operating principles, cooling systems, lubrication systems, air intake systems, exhaust systems, troubleshooting, and dynamometer operation. Special precision measuring tools and general tools will be used. This phase of instruction will be beneficial to those wishing to update their current skills and professional knowledge. "Live" engines will be used when possible. Shop safety will be stressed at all times. Prerequisite: DM 1841 or industrial experience.

DM 1943 Cummins Diesel Engines [(3-17) for 14 Weeks] ..... 9 hours
This block of instruction is to introduce the student to the Cummins Diesel Engine. All major and minor components will be disassembled, evaluated, repaired, and/or rebuilt according to manufacturer's specifications. Included in the study will be operating principles, cooling systems, lubrica-

tion systems, air intake systems, exhaust systems, troubleshooting, and dynamometer operation. Special precision measuring tools and general tools will be used. This phase of instruction will be beneficial to those wishing to update their current skills and professional knowledge. "Live" engines will be used when possible. Shop safety will be stressed at all times. Prerequisites: DM 1841, DM 1942, or industrial experience.

DM 1944 Caterpillar Diesel Engines [(3-17) for 14 Weeks] ..... 9 hours
This block of instruction is to introduce the student to the Caterpillar Diesel Engine. All major and minor components will be disassembled, evaluated, repaired, and/or rebuilt according to manufacturer's specifications. Included in the study will be operating principles, cooling systems, lubrication systems, air intake systems, exhaust systems, troubleshooting, and dynamometer operation. Special precision measuring tools and general tools will be used. This phase of instruction will be beneficial to those wishing to update their current skills and professional knowledge. "Live" engines will be used when possible. Shop safety will be stressed at all times. Prerequisites: DM 1841, DM 1942, DM 1943, or industrial experience.

Drafting

Faculty
Kenneth Hurst, chairman.

Draftsmen 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. There is a large demand for draftsmen throughout the nation. Students completing the program will receive an Associate in Applied Science degree.

Course of Study for Associate in Applied Science Degree

First Year

First Semester

Course	Sem. Hrs.
Art 1311	3
DT 1401 or Engr 1301	4 or 3
Engl 1311	3
Math 1313, 1321, or More Advanced	3
Psy 1201	2
*PE	1

Second Semester

Course	Sem. Hrs.
DT 2401	4
Engl 1312 or Speech 2340	3
Engr 1303	3
Math 1341, 1323, or More Advanced	3
*PE	1
**Approved Elective	3

Second Year

Third Semester

Course	Sem. Hrs.
DT 2402	4
DT 2403	4
Math 1343 or More Advanced	3
**Approved Elective	3
Govt 2301 or 2302	3

Fourth Semester

Course	Sem. Hrs.
DT 2404	4
DT 2405	4
DT 2406	4
**Approved Elective	3

*H.Ed. 1301 can be substituted for the two 1-hour physical education courses.
**Approved Electives: DT 2411, 2412, 2413, Phys 1401, Read 1301, Engr 2303, 2304, Mgt 1301, 2302, MT 1601, WT 1601, any Advanced Math, and any EDP.

DT 1401 Technical Drafting I (2-4) .. 4 hours
A basic course in the fundamentals of drawing and sketching for the technical student. Included in the course will be lettering, geometric construction, sketching and shape description, multiview projection, sections, dimensioning techniques, auxiliary views, and interpretation of industrial sketches and prints. Emphasis is placed on development of skills as well as theory. Prerequisite: None.

DT 2401 Architectural Drafting (2-4) ..... 4 hours
This course is an introductory course in the field of architectural drafting. Prerequisite: DT 1401 or Engr 1301.

DT 2401 Architectural Drafting (2-4) 4 hours
This course is an introductory course in the field of architectural drafting. Prerequisite: DT 1401 or Engr 1301.

DT 2411 Advanced Architectural Drafting (2-4) ..... 4 hours
This course is a continuation of Drafting Technology 2401 with emphasis on commercial and industrial construction. Prerequisite: DT 2401.

DT 2402 Machine Drafting (2-4) .... 4 hours
This course deals with engineering sketches, conventional practices, detail and assembly drawings, machine fastenings, and pipe drawings. Prerequisite: DT 1401 or Engr 1301.

DT 2412 Advanced Machine Drafting (2-4) ..... 4 hours
This course is a continuation of Drafting Technology 2402. A thorough study of position dimensioning and toleranicing will be made. Prerequisite: DT 2402.

DT 2403 Technical Illustration (2-4) ..... 4 hours
A study of pictorial drawings used in industrial catalogs, training aids, engineering designs, assembly sheets and promotional literature. Orthographics, axonometrics and perspectives are used extensively. Prerequisite: DT 1401 or Engr. 1301.

DT 2413 Advanced Technical Illustration (2-4) ..... 4 hours
This course is a continuation of Drafting Technology 2403. The areas covered include inking, shading, and airbrush rendering. Prerequisite: DT 2403.

DT 2404 Piping Drafting (2-4) ..... 4 hours
This course is a study of pipes and pipe fittings, symbols, and specifications of process systems. Drawings of flow diagrams, pumps, compressors, and various other mechanical equipment are prepared. Prerequisite: DT 1401 or Engr 1301.

DT 2405 Electronic Drafting (2-4) ... 4 hours
This is a basic course concerning drafting techniques as they are applied to the field of electronics. Electronic symbols and their application in printed and conventional circuits will be studied. Prerequisites: DT 1401 or Engr 1301.

DT 2406 Structural Drafting (2-4) ... 4 hours
This course is a study of the design and development of details and specifications for industrial structures. Emphasis will be placed upon structural steel, pipe, and reinforced concrete. Prerequisite: DT 1401 or Engr 1301.

Educational Aide

Faculty
Mary Joyce Harding, chairman; Mary Barker, Maryln Hair, Carla Wells.

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

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

Course of Study for Associate in Applied Science Degree
First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1301	3	Engl 1311	3
Spch 1310	3	CD 1403	4
CD 1401 or Psy 2302	4/3	CD 1402 or CD Approved Elective	4/3
CD 2302	3	*PE 1303	3
EA 1300	3	CD 1306 or CD 2306	3
Psy 1201	2		

*Counts as PE Activity Credit

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Govt 2302	3	Soc 2302	3
Spch 2360 or 2340	3	CD 2305	3
EA 2300	3	CD 2304	3
CD 1304	3	EA 2600	6
EA 2301	3		
**CD Approved Elective	3		

**Approved Electives: CD 1301, CD 1305, CD 1306, CD 2301, CD 2304, CD 2305, CD 2306, HEd 1301, Govt 2301, Engl 1312, Span 1411, Span 1412, Span 2311, Span 2312.

Course of Study for Associate in Applied Science Degree
Special Education Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1301	3	Engl 1311	3
Spch 1310	3	CD 1303	3
CD 1401 or Psy 2302	4/3	CD 1402 or CD Approved Elective	4/3
CD 2304	3	*PE 1303	3
EA 1300	2	CD 2306	3
Psy 1201	2		

*Counts as PE Activity Credit

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Govt 2302	3	Soc 2302	3
Spch 2360 or 2340	3	EA 2600	6
EA 2300	3	CD 2305	3
CD 1304	3	EA 2302	3
EA 2301	3		
CD 1305	3		

Course of Study for Associate in Applied Science Degree
Clerical Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1301	3	Spch 2340	3
OE 1204	2	Engl 1311	3
EA 1300	3	OE 1203	2
OE 1401	4	**CD 1402 or Approved Elective	4/3
Psy 1201	2	*PE 1303	3

*Counts as PE Activity Credit

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Govt 2302	3	Soc 2302	3
Spch 2360	3	EA 2600	6
EA 2300	3	CD 1401 or Psy 2302	3
OE 1402	4	CD 1301 or CD 1304	3
CD 2306	3		
CD 1303	3		

**Approved Electives: CD 1301, CD 1305, CD 1306, CD 2301, CD 2304, CD 2305, HEd 1301, Govt 2301, Engl 1312, Span 1411, Span 1412, Span 2311, Span 2312.

Course of Study for Associate in Applied Science Degree
Bilingual Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1301	3	Engl 1311	3
Spch 2340	3	CD 1303	3
CD 1401 or Psy 2302	4/3	CD 1402 or CD or EA Approved Elective	4/3
EA 1300	3	PE 1303	3
CD 1306	3	CD 2306	3
*Span 1411	4	*Span 1412	4

*May test out if proficient in Spanish

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Govt 2302	3	Soc 2302	3
Spch 2360	3	EA 2600	6
EA 2300	3	CD 2305	3
CD 1302	3	CD 2304	3
EA 2301	3	CD 1301 or 2301	3
Span 2311	3	Span 2312	3

Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of 31 hours in core courses. Options are also available in Special Education, 25 hours; Clerical, 33 hours; and Bilingual, 32 hours.

EA 1300 School Procedure (3-0) .... 3 hours
This is an orientation course covering school organizataion, procedures, general practices, individual instruction and staff utilization. The roles of the teacher and assistant teacher will be explored. Prerequisite: None.

EA 2300 Media (2-3) ..... 3 hours
The course is designed to introduce the student to the instructional media used in public schools. Included in the course will be the preparation and application of visual materials such as transparency processing, lettering, and duplicating. Each student will be expected to demonstrate competencies in operating all audio-visual classroom equipment.

EA 2301 Teaching Skills (2-3) ..... 3 hours
Techniques of assisting the teacher in teaching their areas of interest, such as math, reading, reading readiness, phonics, science, writing, and spelling are included. A component of this

course will include individualized instruction and classroom management. Prerequisite: None.

EA 2302 Special Child (2-3) ..... 3 hours
This is a continuation of CD 2304, The Special Child. The student will identify disability areas on which to concentrate studies. These studies will be conducted at the lab site, largely by individualized instruction. Prerequisite: CD 2304 or permission of instructor.

EA 2600 Application of Learning Theories (0-18) ..... 6 hours
Students enrolled in this class will spend lab time with children under the direction of an experienced teacher. The student enrolled in the course must show evidence of being a competent teacher aide before a passing grade can be awarded. Prerequisite: 24 hours of EA and CD and/or permission of instructor. A grade of "C" or better is required.

Electrical and Electronics

Faculty
Dr. George Willis, chairman.

The Electrical and Electronics Technology curriculum is designed to prepare individuals for technical careers in electronics communications, industrial electrical and electronics, and consumer electronics servicing. Emphasis is placed on transistors, integrated circuits, special purpose tubes, and circuits in power supplies, amplifiers, oscillators, transmitters, receivers, television, microwave, and digital logic devices. Power distribution, measuring instruments, electrical machinery, and controls are also studied.

Course of Study for Associate in Applied Science Degree
(Texas Education Agency approval pending)

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312 or Spch 2340	3
ET 1401	4	ET 1403	4
ET 1402	4	ET 1404	4
Math 1321, or 1341, or More Advanced	3	Math 1323, or 1341, or More Advanced	3
Psy 1201	2	Govt 2301 or 2302	3
*PE	1	*PE	1

Second Year

Course	Sem. Hrs.
DT 1401 or Engr 1301	4 or 3
ET 2400	4
ET 2410	4
***ET Electives	12
**Approved Electives	6

Electrical Electronics Majors

***To satisfy the 12-semester-hour ET elective requirement the second-year student should follow the guidelines listed under each major. E.T. electives are any E.T. courses not specifically required in the degree plan.

**To satisfy the 6-semester-hour approved elective requirement the second-year student should select from the approved elective list those courses which will provide training most closely related to his occupational objective.

Electrical Technology Major:
- ET 2406 Electrical Machinery
- ET 2407 Electrical Control Circuits
- ET 2408 Digital Circuits II

or approved substitutions

Electronic Technology Majors:
Communications
- ET 2201 Rules & Regulations
- ET 2401 Electronic Communications I
- ET 2408 Digital Circuits II
- ET 2409 Electronic Instruments

or approved substitutions

General Electronics Servicing:
- ET 2405 Consumer Electronics
- ET 2408 Digital Circuits II
- ET 2409 Electronic Instruments

or approved substitutions

Electronic Manufacturing:
- ET 2407 Electrical Control Circuits
- ET 2408 Digital Circuits II
- ET 2409 Electronic Instruments

or approved substitutions

*H Ed 1301 may be substituted for the two 1-hour PE courses. Veterans may receive PE credit for military duty and should contact the registrar for details.
**Approved electives are: AT 2601; BA 1301, 2311, 2312, 2314; DM 1603; DT 2405; Eco 1301; any EDP; any II; any Math higher than those required above; Mgt 1301, 1303, 1361, 1362, 2302, 2303; MT 1601; Phys 1401, 1402; R/AC 1302, 1312; Read 1301, 1302; WT 1601.

Credit in beginning ET courses may be awarded by passing an Advanced Standing Exam. Persons with prior training or experience may wish to apply. Contact the department chairman.

Students not desiring the A.A.S. degree may receive a Certificate of Technology by completing a minimum of 36 semester hours of electronics courses and the necessary 6 semester hours of prerequiste math courses.

Associate in Applied Science Degree With Announcer-Operator Option

This option is designed to prepare people for employment in the smaller radio stations as a combination technician, announcer, disc jockey, etc.

The student will work toward the Federal Communications Commission's First Class Radiotelephone license for the technical portion of this option. In addition, the student will study announcing, writing, diction, and production and will be expected to work in the college radio station KOCV-FM.

The Announcer-Operator option is conducted in conjunction with the De partment of Communication and Theatre, and the suggested course of study is located in that portion of the catalog. Students selecting this option will be considered R/TV majors.

ET 1401 D.C. Circuits (3-3) ..... 4 hours
In this course a study is made of the principles of direct current electricity and their application to electrical testing and circuitry. Specific topics include Ohm's law, series-parallel circuits, batteries, meters, magnetism, conductors, insulators, and color code. Prerequisite: high school algebra. Recommend Math 1321 or 1341 or higher to be taken in advance or at least concurrently.

ET 1402 Digital Circuits I (3-3) ..... 4 hours
Logic circuitry basic to computers, telemetry, and automation is studied. Specific topics include: gates; counters; adders, I/O; D/A & A/D converters; storage devices, binary, octal, BCD, hexidecimal systems; and an introduction to Boolean algebra. Prerequisite: high school algebra or take Math 1321 or 1341 concurrently.

ET 1403 A.C. Circuits (3-3) ..... 4 hours
This is a study of the principles of alternating current and voltage, the application of basic laws and formulas to electrical circuits and testing, induction, capacitance, reactance, impedance, complex numbers, and filters. Student will need an electronic calculator. Prerequisite: ET 1401, Math 1321 or 1341.

ET 1404 Electronics I (3-3) ..... 4 hours
This is an introductory course on the fundamentals of vacuum tubes and solid state devices such as power supplies, amplifiers, FET, Bipolar transistors, diodes, regulators, and linear integrated circuits. Prerequisite: ET 1401. Corequisite: ET 1403.

ET 2201 Rules & Regulations (2-0) ..... 2 hours
Preparation for the Federal Communication Commission's second class license examination. Prerequisite or corequisite: ET 2401.

ET 2400 Electronics II (3-3) ..... 4 hours
A continuation of ET 1404. This course includes topics of operational and differential amplifiers, oscillators; multivibrators, UJT, SCR, Discs, Triacs, varactors, RF amplifiers. Prerequisite: ET 1401, 1402, 1403, 1404.

ET 2401 Electronic Communications I (3-3) ..... 4 hours
Principles of amplitude and frequency modulation, antennas, RF detection, Single Sideband, automatic frequency and gain devices, noise suppression, and RF frequency and power measurements and adjustments. Emphasis is placed on applications in two-way radios. Corequisite or prerequisite: ET 2201, 2400, six semester hours of math.

ET 2404 Electronic Communications II (3-3) ..... 4 hours
A combination of laboratory, electronic theory, and rules and regulations for commercial radio and television broadcast, and the FCC first class license. Prerequisites: ET 2201, 2401, or hold FCC second class license.

ET 2405 Consumer Electronics (3-3) ..... 4 hours
Principles of operation and servicing techniques of various products such as stereo, TV, tape recorders, public address systems, etc. Prerequisites: ET 1401, 1402, 1403, 1404.

ET 2406 Electrical Machinery (3-3) ..... 4 hours
An investigation into the theory, principles, performance and construction of electric motors, generators, transformers, voltage regulators and other electrical apparatus used in industry is included in this course. Effects of leading and lagging power factors are explored, and corrective methods applied. A very well equipped laboratory permits thorough independent study of all characteristics. Prerequisites: ET 1401, 1403, and six semester hours of math beginning with Math 1321 or higher. An electronic calculator is necessary.

ET 2407 Electrical Control Circuits (3-3) ..... 4 hours
This course covers the development of circuits for the controls of motors, generators, and other apparatus. Analysis, troubleshooting and the making and reading of complex control diagrams is emphasized. Solid state, static (logic) and servo controls will be included. Prerequisite: ET 1401, 1403, and six semester hours of math beginning with Math 1321 or higher. An electronic calculator is necessary.

ET 2408 Digital Circuits II (3-3) ..... 4 hours
A state-of-the-art control and logic handling course wherein the microprocessor and associated integrated circuits accomplish by the use of software that which formerly required extensive hard-wired circuitry. It involves programming, machine and assembly languages, octal and hexidecimal systems, and interfacing methods. Included are such devices as RAM, ROM, EROM, UART, PROM, and others as well as the microprocessor chip. Prerequisite: ET 1401, 1402.

ET 2409 Electronic Instruments (3-3) ..... 4 hours
Classroom, laboratory, and practical applications of skills in troubleshooting and repair of various electrical and electronic instruments such as meters, oscilloscopes, power supplies, generators, counters, controls, etc. Prerequisite: ET 1401, 1402, 1403, 1404, and 2400.

ET 2410 Electrical Power Distribution (3-3) ..... 4 hours
Emphasis is placed on the National Electric Code which specifies methods and principles for residential, commercial, and industrial applications. Topics include single and polyphase systems, grounding, voltage drop, over current controls, and safety practices. The lab portion is practical work involving common switching circuits, fixtures, services, armored cable, non-metallic cable, buss duct, and other wiring materials. Prerequisite: ET 1401 or approval of department chairman.

Electronic Data Processing

Faculty
Rayford Ball, chairman;
Dr. Thom Luce.

The development and use of electronic digital computers in business and industry have created a need for many data processing technicians in the Permian Basin. The Electronic Data Processing Technology curriculum places special emphasis upon the processing of business and industry data and the use of machine and electronic equipment in finding solutions to business and industrial problems. Experiences on electronic data processing equipment will be supplemented with technical information and study designed to give the student an understanding of his civic responsibilities and the occupational skill necessary for today's society. The central purpose of the program, however, is to develop occupational competency. Students completing the two-year data processing program should be able to: (1) apply current programming techniques with a minimum of supervision; (2) understand and operate practically any data processing equipment after a brief orientation period; (3) properly document programming decisions and communicate in a satisfactory manner with other personnel concerned; and (4) direct their educational background and ability toward mastering new and special techniques as the need occurs.

Course of Study for Associate in Applied Science Degree

Business Programming Option

First Year

First Semester

Course	Sem. Hrs.
BA 1301	3
EDP 1401	4
Engl 1311	3
Math 1341 or 1302	3
Psy 1201	2
*PE	1

Second Semester

Course	Sem. Hrs.
EDP 1402	4
EDP 1403	4
Engl 1312 or Spch 2340	3
Math 1303	3
*PE	1

Second Year

Third Semester

Course	Sem. Hrs.
EDP 2402	4
EDP 2403	4
BA 2401 or OE 1404	4
EDP Elective	4

Fourth Semester

Course	Sem. Hrs.
EDP 2404	4
EDP 2405	4
**Approved Electives	6
Govt 2301 or 2302	3

*H.Ed. 1301 may be substituted for the two 1-hour physical education courses.
**Approved Electives: ET 1402; ECO 1301; Read 1301; Mgt 1301; Mgt 1303; Mgt 2302; Mgt 2303; any Math, BA, Physics, Engr, Chem, or EDP not already required except EDP 2301.

Course of Study for Associate in Applied Science Degree

Scientific Programming Option

First Year

First Semester

Course	Sem. Hrs.
EDP 1401	4
Engl 1311	3
Math 1341	3
Chem 1301	3
Chem 1101	1
Psy 1201	2
*PE	1

Second Semester

Course	Sem. Hrs.
EDP 1402	4
Engl 1312 or Spch 2340	3
Math 1343	3
Math 1345	3
OE 1401	4
*PE	1

Second Year

Third Semester

Course	Sem. Hrs.
EDP 2406	4
EDP Elective	4
Math 2331	3
Phys 1401	4

Fourth Semester

Course	Sem. Hrs.
EDP 1403	4
Govt 2301 or 2302	3
Math 1361 or 2301	3
Math 2333	3
**Approved Elective	3

*H.Ed. 1301 may be substituted for the two 1-hour physical education courses.
**Approved Electives: ET 1402; Eco 1301; Read 1301; Mgt 1301; Mgt 1303; Mgt 2302; Mgt 2303; any math, BA, Physics, Engr, Chem, or EDP not already required except EDP 2301.

EDP 1301 Data Entry (2-2) ..... 3 hours
This course is designed to qualify a student in the operation of various data entry devices such as keypunch, verifier, CRT, and others. Laboratory sessions involve practice in using the data entry devices. Prerequisite: None; however, some typing skill is desirable.

EDP 1400 Programming in BASIC Language (3-3) ..... 4 hours
BASIC language is used to program most mini-computers. It is also applicable to many large computers. Some users of this language are: business firms for record keeping; industry for computer control of various devices; electronic technicians for servicing mini-computers; and the owners of personal computers. The course and lab consists of writing and executing programs on both mini-computers and the main college computer. Prerequisite: None.

EDP 1401 Introduction to Computer Programming (3-3) ..... 4 hours
This course is designed to develop abilities needed in programming for business and scientific applications. The course includes problems definition, flowcharting, documentation techniques, and development of basic programming concepts. The laboratory consists of preparing flowcharts and coding problems in one or more higher-level languages and executing them on the UNIVAC computer. A simple subset of these languages will be used. Prerequisite or Corequisite: Math 1341 or 1302.

EDP 1402 Computer Operations (3-3) ..... 4 hours
This course covers the actual operation of a computer that has a supervisor or operating system. Necessary knowledge of job control cards and interpretation of console registers and messages to the console operator is taught. Students learn to utilize standard system routines and utility programs. During the course of the semester, the student spends a portion of his laboratory time operating a UNIVAC computer system. Prerequisite: EDP 1401.

EDP 1403 COBOL Programming I (3-3) ..... 4 hours
In addition to the rules for utilizing the COBOL language, emphasis is placed on the application of data processing to current business problems in accounting procedures. File organization and record formats are studied. The laboratory consists of utilizing the computer to solve business problems. Lab problems will be coded in COBOL. Prerequisite: EDP 1401 or approval of instructor.

EDP 2301 Survey of Data Processing (3-0) ..... 3 hours
This course is designed for the student who is not majoring in Data Processing or a related field but who will need some basic knowledge of computers. It is a broad survey of computer technology. It includes an introduction to basic computer concepts, a brief history of computing devices, and various topics in computer applications. Special emphasis will be given to business applications, including management information systems. The social, legal, and economic impact of computer technology will be discussed. This course is not acceptable for credit toward a degree in data processing. Prerequisite: None.

EDP 2401 Assembler Language Programming (3-3) ..... 4 hours
This is an advanced course designed to give the student a background in assembler language programming. UNIVAC assembler language is used and programs will be run on the college's UNIVAC computer. Prerequisite: EDP 1401 or approval of the instructor.

EDP 2402 FORTRAN IV Programming (3-3) ..... 4 hours
The application of FORTRAN IV programming to both business and scientific problems will be emphasized. The course is designed for data processing majors. The student will be required to solve business and scientific problems utilizing the FORTRAN IV programming language. Prerequisite: EDP 1401, Math 1303.

EDP 2403 COBOL Programming II (3-3) ..... 4 hours
This is an advanced course that is a continuation of EDP 1403. Concepts of direct access and magnetic tape processing through the use of realistic programming problems will be presented. Instruction will include direct, Sequential and index sequential processing, COBOL subroutines, segmentation, system design, and other advanced COBOL programming techniques. Laboratory consists of using the computer to solve business problems. Prerequisite: EDP 1403 or approval of the instructor.

EDP 2404 RPG Programming (3-3) ..... 4 hours
This course is designed to further the student's study of computers and computer applications. Practical business data processing problems are solved using the RPG programming language. The utilization of RPG in the small data processing shop as well as in the larger shops is studied. The role of RPG in the single-language shop as well as in multi-language shops is shown. Prerequisite: EDP 1401, or approval of instructor.

EDP 2405 Business Systems Design and Development (3-3) ..... 4 hours
This is a fundamental course in systems analysis which will include the following: a basic introduction and analysis of data and information processing concepts; and indepth treatment of data base concepts; a discussion of systems work presented in the form of a methodology for the development of information systems; and a discussion of ideas and topics important to information systems theory and practice. Prerequisite: EDP 1403.

EDP 2406 Scientific Programming (3-3) ..... 4 hours
This is an introductory programming course for science and engineering majors. The course is designed to familiarize the student with the FORTRAN IV programming language and the application of this language to the solution of problems of a scientific nature. Prerequisite or corequisite: Math 2331. Recommended prerequisite: EDP 1401.

EDP 2407 PL/I Programming (3-3) .. 4 hours
The application of PL/I programming to both business and scientific problems is emphasized. The student is required to solve business and scientific problems utilizing the PL/I programming language. Prerequisite: EDP 1401.

EDP 2408 Programmable Calculator Programming (3-3) ..... 4 hours
The programmable calculator is rapidly becoming an important aid to the engineer, scientist, and businessman. This course is an introduction to the functions and programming techniques of calculators having algebraic operating

systems (AOS). In the lab, students will be required to solve scientific and business problems on a programmable calculator (either AOS or reverse polish notation—RPN—may be used in solving lab problems). Prerequisite: Math 1341 or equivalent.

EDP 2409 Special Problems (3-3) ... 4 hours
This course is designed to allow the student to work on an approved special project of his/her choosing and receive EDP elective credit. The project must be approved by the chairman of the EDP department. Prerequisite: Department chairman approval.

Emergency Medical Technology

Faculty
Daniel Finley, chairman;
Dr. Robert Rowntree, III, lecturer.

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

The curriculum is primarily designed for ambulance personnel, safety engineers, rescue squad workers, policemen, firemen, lifeguards, 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, Texas Emergency Medical Services.

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 National Highway Safety Bureau, U.S. Department of Transportation. The training includes both theoretical and practical applications of emergency care.

Enrollment in EMT 2801 and EMT 2802 is limited, and students are urged to apply early to insure acceptance to the program. Applicants or those seeking additional information should contact the Emergency Medical Technology director.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1100	1	EMT 1301	3
Biol 1401	4	EMT 1402	4
Engl 1311	3	Engl 1312	3
Govt	3	Biol 1402	4
Math 1313	3	PE	1
Psy 1201	2		
PE	1		

Successful completion of first year will prepare the student to write the examination for Registry for Class A Basic Emergency Medical Technician.

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
RT 1202	2	EMT 2802	8
Chem 1301	3	EMT 2302	3
EMT 2801	8	Psy 1301	3
Biol 1403	3	Spch 1310	3

Successful completion of 2nd year will prepare the student to write the examination for Registry for Class A, Advanced Paramedic.

Emergency Medical Technology Certificate Program

Summer Session

First Term		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
EMT 1301	3	EMT 1402	4

Successful completion will prepare the student to write the examination for Registry for Class A, Basic Emergency Medical Technician.

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
EMT 2801	8	EMT 2802	8

Successful completion will prepare the student to write the examination for Registry for Class A, Advanced Paramedic.

EMT 1301 Basic Emergency Care of the Sick or Injured (3-0) ..... 3 hours
An introductory course designed to define the roles and responsibilities of the Emergency Medical Technologist. A functional approach of anatomy and physiology, and medical terminology is utilized to enable the student to become proficient in the emergency care of the sick and injured. Topics covered include vital sign recognition, cardiac and pulmonary problems, wounds, fractures, and miscellaneous injuries. Prerequisite: None.

EMT 1402 Emergency Care of the Sick or Injured (3-3) ..... 4 hours
This course is a continuation of EMT 1301. It emphasizes medical and environmental emergencies, extrication and rescue, and ambulance operation. The practicum includes 48 hours of in-hospital training with a minimum of 24 hours spent in the emergency room. The remaining 20 hours experience will be gained in the recovery room, delivery room, and intensive care unit. The student must also make at least five ambulance runs. Successful completion of this course will allow the student to write the examination for Registry for Class A, Basic Emergency Medical Technician (EMT). Prerequisite: EMT 1301 and consent of instructor.

EMT 2200 Emergency Medical Review (2-0) ..... 2 hours
The National Highway Safety Bureau and the National Academy of Sciences/ National Research Council consider it important that a means be provided for maintaining a uniformly high level of skill among Emergency Medical Technicians (EMT's) who have successfully completed basic training in emergency medical care. This refresher course has been developed to provide for periodic review and updating of EMT skills and knowledge. Prerequisite: EMT Registry.

EMT 2300 Advanced Paramedic Review (3-0) ..... 3 hours
A refresher course in Advanced Paramedic technique designed to provide for review and updating of paramedic skills and knowledge. This course is in compliance with U.S. Department of Transportation and Texas Department of Health guidelines for paramedic re-certification. Prerequisite: Paramedic Registry.

EMT 2302 Introduction to Human Disease (3-0) ..... 3 hours
This course provides an introduction to the fundamentals of human disease followed by a review of principal diseases of major organ systems. Emphasis is placed on the nature, prevention, control, diagnosis, and treatment of common diseases. A comprehensive examination of human pathology designed to meet the educational needs of the allied health student. Prerequisite: None.

EMT 2801 Advanced Emergency Care of the Sick or Injured I (6-6) ..... 8 hours
An advanced course on the care of the acutely ill with emphasis on respiratory and cardiovascular care. Additional topics include diagnostic techniques, pharmacology, and shock and fluid therapy. The practicum will include clinical experience in the emergency room, operating room, recovery room, intensive care unit, coronary care unit, and blood bank. In addition, the stu-

dent must complete ambulance runs as required for certification. Prerequisite: Registered Class A-EMT and consent of instructor.

EMT 2802 Advanced Emergency Care of the Sick or Injured (6-6) ..... 8 hours
A continuation of EMT 2801 with emphasis on central nervous system, soft tissue, and musculoskeletal injuries. Additional topics include medical emergencies, obstetrics, pediatrics, rescue techniques, communications, and management of the emotionally disturbed. The practicum will include clinical experience in the emergency room, pediatric unit, labor suite, morgue, and psychiatric unit. The student must also complete ambulance runs as required for certification. Successful completion will allow the student to write the examinataion for Registry for Class A-Advanced Paramedic. Prerequisite: EMT 2801 or consent of instructor.

Engineering

Faculty
Rayford Ball, chairman; Jim Fields, Delmos Hickmott, Kenneth Hurst.

The curriculum in Engineering has been designed for those students wishing to prepare for professional engineering degrees — mechanical, chemical, civil, and electrical. The student should be aware of specific requirements of the college or university to which he may ultimately plan to transfer. The program below is a suggested one and may be modified to conform to requirements of the student's chosen transfer institution.

Course of Study for Certificate of Completion in Engineering

First Year

First Semester

Course	Sem. Hrs.
Chem 1301 and 1101	4
Engl 1311	3
Engr 1301	3
Math 1345	3
Math 2331	3
Psy 1201	2
PE	1

Second Semester

Course	Sem. Hrs.
Chem 1302 and 1102	4
Engl 1312	3
Engr 1303 or EDP 2406	3 or 4
Math 2333	3
PE	1
Phys 1403	4

Second Year

Third Semester

Course	Sem. Hrs.
*Engl (Sophomore Level) or Govt 2301	3
Engr 2303	3
Hist 2301	3
Math 2335	3
PE	1
Phys 2401	4

Fourth Semester

Course	Sem. Hrs.
*Engl (Sophomore Level) or Govt 2302	3
Engr 2304	3
Hist 2302	3
Math 2351	3
PE	1
Phys 2402	4

Note: Chemical Engineering majors will take Chemistry 2301, 2101 and 2302, 2102 in lieu of sophomore English during their second year.
*Six hours of Government and 12 hours of English are required for the Associate in Science Degree.

Engineering Technology

The Engineering Technology program is designed to prepare a person to work as an assistant to an engineer. Emphasis is placed on courses basic to a professional degree; primarily mathematics, engineering, physics, and electronic data processing. The courses incorporated in the program afford the graduate flexibility in the selection of engineering fields.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Engr 1301	3	Engr 1303	3
*Math 1343	3	*Math 1345	3
*Math 1341	3	Math 2331	3
Psy 1201	1	**PE	1
*PE	1	Phys 1401	4

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engr 2303	3	DT 2406	4
DT 2402	4	EDP 2406	4
Govt 2301 or 2302	3	Engr 2304	3
Math 2333	3	Math 2335	3
Phys 1403	4	Phys 2401	4

*Math 1381 and Math 1383 may be taken in place of Math 1341, 1343, and 1345.
**HE 1301 may be substituted for the two 1-hour physical education courses.

Engr 1301 Engineering Drawing (2-4) ..... 3 hours
The care and use of drawing instruments, free-hand lettering, geometric construction, general drafting principles, multiview projection, revolutions, auxiliary views, and sections are studied. Included also are isometric and cabinet projection, threads, bolts, rivets, helices, dimensioning, principles of working drawings, pattern development, and oblique drawing. Prerequisite: None.

Engr 1303 Descriptive Geometry (2-4) ..... 3 hours
A study is made of the principles of descriptive geometry, auxiliary views, developments, intersections, double-curved and warped surfaces, point, line, and plane problems, and their applications to problems of engineering and architecture. Prerequisite: Engr 1301.

Engr 2303 Mechanics I (3-0) ..... 3 hours
This is a basic mechanics course utilizing vectors and tensors. Statics, including concepts of free-body diagrams, friction forces, and virtual-work; motion of particles, including momenta, energy, and work concepts are also studied. Prerequisite or Corequisite: Math 2333.

Engr 2304 Mechanics II (3-0) ..... 3 hours
The 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 are studied. Prerequisite: Engr 2303.

Fire Protection

Faculty
Dr. Oliver Nordmarken, chairman.

Fire Technology is designed to assist in the development of meaningful educational experiences for pre-service and in-service firemen. Emphasis is placed on practical application in understanding building designs, classification of fires, exposure protection, toxic fumes, arson investigation, hazards, fire fighting techniques and standards. Fire Administration is surveyed 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 employment and to provide the necessary educational background for advancing into a highly responsible position in the profession.

Course of Study for Associate in Applied Science Degree

First Year

First Semester

Course	Sem. Hrs.
Chem 1301 and 1101	4
Engl 1311	3
Fire 1301	3
Fire 1302	3
Math 1313, 1321 or More Advanced	3
Psy 1201	2
PE	1

Second Semester

Course	Sem. Hrs.
Chem 1302 and 1102	4
Fire 1303	3
Fire 1304	3
Fire 1305	3
PE	1
Spch 2340	3

Second Year

Third Semester

Course	Sem. Hrs.
Engl 2330	3
Fire 2301	3
Fire 2302	3
Fire 2303	3
Govt 2301	3
Elective (Fire Protection or EMT)	3

Fourth Semester

Course	Sem. Hrs.
Fire 2304	3
Fire 2405	4
Fire 2306	3
Elective (Fire Protection or EMT)	3
Elective	3
Elective	3

Fire 1301 Fundamentals of Fire Protection (3-0) ..... 3 hours
History and philosophy of fire protection; review of statistics of loss of life and property by fire; introduction to agencies involved in fire protection; current legislative developments and career orientation; recruitment and training for fire department; position classification and pay plans; employee organizations; a discussion of current related problems and review of expanding future fire protection problems. Prerequisite: None.

Fire 1302 Industrial Fire Protection I (3-0) ..... 3 hours
Specific concerns and safeguards related to business and industrial organizations. A study of industrial fire brigade organization and development, plant lay-out, fire prevention programs, extinguishing factors and techniques, and hazardous situations and prevention methods. Gaining cooperation between the public and private fire department organization. Study of elementary industrial fire hazards in manufacturing plants. Prerequisite: None.

Fire 1303 Industrial Fire Protection II (3-0) ..... 3 hours
Development of fire and safety organizations in industry; relation between private and public fire protection organizations; current trends, deficiencies and possible solutions for industrial fire problems; role of insurance and other special organizations; and in-depth study of specific industrial processes equipment, facilities and work practices to understand the potential hazards and techniques to detect and

control such hazards. Field trips to selected plants and demonstrations of new techniques equipment and innovations. Prerequisite: None.

Fire 1304 Fire Protection Systems
(3-0) ..... 3 hours
Study of the required standard for water supply; special hazards protection systems; automatic sprinklers and special extinguishing systems; automatic signaling and detection systems; rating organizations and underwriting agencies. Prerequisite: None.

Fire 1305 Fire Prevention (3-0) ..... 3 hours
The objectives and views of inspections, fundamental principles, methods, techniques, and procedures of fire prevention administration. Fire prevention organization; public cooperation and image; recognition of fire hazards; insurance problems and legal aspects; development and implementation of a systematic and deliberate inspection program; survey of local, state, and national codes pertaining to fire prevention and related technology; relationship between building inspection agencies and fire prevention organizations. Engineering as a solution to fire hazards. Prerequisite: None.

Fire 2301 Fire and Arson Investigation
(3-0) ..... 3 hours
A study of the detection of arson, investigation techniques, case histories, gathering and preserving of evidence; preparing for a court case; selected discussion of laws, decisions and opinions; kinds of arsonists, interrogation procedures, cooperation and coordination between fire fighters and arson investigators and other related topics. Prerequisite: None.

Fire 2302 Building Codes and Construction
(3-0) ..... 3 hours
Fundamental consideration and exploration of building construction and design with emphasis on fire resistence of building materials and assemblies, exposures, and related data focused on fire protection concerns; review of related statutory and suggested guidelines, both local and national in scope. Review of Model Building Codes and Life Safety Code. Prerequisite: None.

Fire 2203 Fire Administration I
(3-0) ..... 3 hours
An in-depth study of the organization and management as related to a fire department including budgeting, maintenance of records and reports, and management of fire department officers. Personnel administration and distribution of equipment and personnel and other related topics, including relation of various government agencies to fire protection areas. Fire Service Leadership as viewed from the Company officer's position. Prerequisite: None.

Fire 2304 Fire Administration II
(3-0) ..... 3 hours
Study to include insurance rates and ratings, preparation of budgets, administration and organization of training in the fire department; city water requirement, fire alarm and communications systems; importance of public relations, report writing and record keeping; measurements of results, use of records to improve procedures, and other related topics; legal aspects relating to fire prevention and fire protection with stress on municipal and state agencies; design and construction of fire department buildings. Prerequisite: None.

Fire 2306 Hazardous Materials I
(3-0) ..... 3 hours
Study of chemical characteristics and behavior of various materials that burns or react violently related to storage, transportation, handling hazardous materials, i.e., flammable liquids, combustible solids, and gases. Emphasis on emergency situations and most favorable methods of handling fire fighting and control. Prerequisite: None.

Fire 2307* Fire Safety Education
(3-0) ..... 3 hours
A survey of physical, chemical, and electrical hazards and their relationship to loss of property and/or life. Study of codes, laws, problems, and cases. Detailed examination and study of the physical and psychological variables related to the occurrence of casualties. Safe storage, transportation and handling techniques are stressed to eliminate or control potential risks. Prerequisite: None.

Fire 2308* Fire Service Communications
(3-0) ..... 3 hours
The development of fire alarm systems, the various types of systems, installation, operation and testing of the most common systems; receiving, dispatching, and radio communication procedures; F.C.C. regulations, the fire alarm operations office, mutual aid systems, fire station communications and facilities, response and fire ground procedures, emergency operations, code

and numbering systems, required records and reports; technological advances. Prerequisite: None.

Fire 2309* Urban Fire Problem Analysis (3-0) ..... 3 hours
Intensive study of the urban fire problem. Problems covered by lack of zoning and other land use laws. Operation research techniques, and systems engineering are utilized as analytic procedures for the technological assessment of public fire protection, including water supply, fire alarm, and fire department traditional assessment methods and urban analysis. Socio-economic and management factors as related to city planning. Environment problems incurred should be studied in-depth. Prerequisite: None.

Fire 2310* Fire Hydraulics and Equipment (3-0) ..... 3 hours
Application of the laws of mathematics and physics to properties of fluid states, force, pressure and flow velocities. Emphasis in applying principles of hydraulics to fire fighting problems. Evaluataion of water supply, flow requirements of standpipes, sprinklers and appliances, and methods of determining available quantities of water for fire protection purposes. Prerequisite: None.

Fire 2311* Advanced Fire Loss Statistical Systems (3-0) ..... 3 hours
An in-depth study of computerized systems that may be utilized for storing and retrieval of fire loss statistics, also techniques and procedures for programming various types of records and reports valuable to the fire service. Exploration of the new systems of microfilming including the modern technology of COM (Computer Output Microfilm) and the systems utilizing microfiche, including reduction ratios and various type readers. A review of standards for the uniform coding for fire protection as developed by the NFPA in pamphlet 901 and 901AM. Prerequisite: None.

Fire 2312* Fire Insurance Fundamentals (3-0) ..... 3 hours
The relationships between the fire defenses, fire losses, and insurance rates are studied. Basic insurance principles, fire loss experience, loss ratios, state regulations of fire insurance, key rate system, applying the I.S.O. grading schedule and other topics are stressed. Relationship of insurance to modern business; principles of property and casualty insurance contracts; corporate structure of insurance companies. Prerequisite: None.

Fire 2313* Legal Aspects of Fire Protection (3-0) ..... 3 hours
A study of legal rights and duties, liability concerns and responsibilities of the fire department while carrying out their duties. Introduction and basic concepts of Civil and Criminal law, the Texas and federal judicial structure, and cites liability for acts of the fire department and fire prevention bureaus. An in-depth study of various cases concerning fire fighters, fire departments, and municipalities. Prerequisite: None.

Fire 2314* Hazardous Materials II (3-0) ..... 3 hours
Hazardous materials covering storage, handling, laws, standards, and fire fighting techniques associated with chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket propellants and exotic fuel, and radioactive materials. The formation of toxic fumes and health hazards is also stressed. Ignition and combustion characteristics of gases, liquids, and solids related to free-burning fire and explosion phenomena. Familiarization with radiological instruments, human exposure to radiation, decontamination procedures, common uses of radio-active materials and operational procedures. Prerequisite: None.

Fire 2405 Fire Fighting Tactics and Strategy (3-1) ..... 4 hours
Essential elements in analyzing the nature of fire and determining the requirements. Efficient and effective utilization of manpower, equipment and apparatus. Emphasis to be placed on pre-planning, study of conflagration problems, fire ground organization problem solving related to fire ground decision making and attack tactics and strategy. Use of Mutual Aid and large scale command problems. Prerequisite: None.

*Approved electives.

Geology, Anthropology, Astronomy, Geography, and Earth Science

Faculty
Ed Orton, chairman; Keith Johnson, Brent McAfee.

Geology

Geology is a study of the earth, its history, its materials, its changing life, and the processes that have resulted in its present form. For the student who does not wish more than a year of geology, the principal value will be primarily in an increased interest in and understanding of his environment. However, for those majoring in geology, petroleum or civil engineering, ecological studies or some closely related subject, the first year of geology courses provides the necessary background for further study. An important function of this department is to train students for work in the petroleum industry. Geology 1401 and 1402 will serve as a required physical and/or natural science at most senior colleges.

Course of Study for Associate in Science Degree in Geology

First Year

First Semester

Course	Sem. Hrs.
Chem 1301 and 1101	4
Engl 1311	3
Geol 1401	4
Hist 2301	3
Math 1341 or Math 1381	3
Psy 1201	2
PE	1

Second Semester

Course	Sem. Hrs.
Chem 1302 and 1102	4
Engl 1312	3
Geol 1402	4
Hist 2302	3
Math 1343 or Math 1383	3
PE	1

Second Year

Third Semester

Course	Sem. Hrs.
Anth 2301	3
Engl (Sophomore Level)	3
Govt 2301	3
Phys 1401	4
Math 1345 or Math 2331	3
PE	1

Fourth Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Geol 2301	3
Govt 2303	3
Phys 1402	4
Math 2331 or Anth 2302	3
PE	1

Geology

Geol 1401 Physical Geology (3-3).. 4 hours
This course involves study of geologic features and processes of the earth. It is a foundation course for all additional work in geology and a general course for cultural development. Prerequisite: None.

Geol 1402 Historical Geology (3-3)..... 4 hours
The Geologic history of the earth is given emphasis in this course. It provides basic knowledge required for additional study in geology or for cultural development. Prerequisite: None.

Geol 2301 Geomorphology (3-0).... 3 hours
Geologic interpretation of the origin, development, and classification of land forms. Prerequisite: Geol 1401 or permission of instructor.

Anthropology

Anthropology is a comprehensive study of man and his works. Within it are included 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. Anthropology 2301 and 2302 will fulfill social science requirements at many colleges.

Anth 2301 Physical Anthropology
(3-0)..... 3 hours
This course is an introduction to the study of the physical characteristics of man. Comparisons are made between modern man, fossil man, and the higher primates. Physical characteristics of modern races are also studied. Prerequisite: None.

Anth 2302 Cultural Anthropology
(3-0)..... 3 hours
The study of human culture is presented in historical perspective by examining the development of culture as well as by comparing present cultures. Prerequisite: None.

Astronomy

The astronomy classes are primarily intended for the non-science major, either to satisfy a science requirement or as an elective for the interested student. Either course should satisfy a general lab science requirement at most colleges. As people begin to live and work in space, knowledge of basic astronomy will become necessary. Astronomy is a profitabale field for the science major as well, since some of the most fascinating experiments in physics, chemistry, geology, and even biology, are taking place now between the stars.

Astr 1401 Descriptive Astonomy
(3-3)..... 4 hours
This is a survey course, including the sky as seen from earth, the development of astronomy, and current knowledge and research about the planets and other nearby heavenly bodies, including results from recent space exploration and other new research techniques. The planetarium and telescope are used frequently; observing field trips are offered. Prerequisite: None.

Astr 1402 Descriptive Astronomy II
(3-3)..... 4 hours
This is a survey course, covering the universe beyond the solar system. It includes the study of stars and their evolution, our galaxy, black holes, pulsars, and other recent discoveries. Planetarium sessions and telescope observing are included. Prerequisite: None.

Geography

Courses in geography are designed to acquaint the student 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. Geography 2301 and 2302 will fulfill social science requirements at many colleges.

Geog 2301 Principles of Geography
(3-0)..... 3 hours
This course deals with the physical and cultural geography of the countries of North and South America. Prerequisite: None.

Geog 2302 Principles of Geography
(3-0)..... 3 hours
This course deals with the physical and cultural geography of Europe, Asia, Africa, Australia, and the more important island groups. Prerequisite: None.

Earth Science

Earth Science is an integrated science course intended for the non-technical major. The material covered includes earth processes such as mountain building, erosion, and sedimentation; the nature and composition of the earth with its atmosphere and the relationship of the earth to the solar system and galaxy. Principles of physics and chemistry are included where appropriate.

Ea Sc 1401 Nature of the Earth and Universe (3-3) ..... 4 hours
This course is concerned with a study of the planet Earth, its history, and the processes and agents that shape the surface and the interior. The Earth's relationships to the solar system and to the universe are also studied. Many principles of other sciences are included in terms of easily visualized natural processes. Prerequisite: None.

Ea Sc 1402 Nature of the Earth and Universe II (3-3) ..... 4 hours
Earth Science 1402 is a continuation of Earth Science 1401 or Astronomy 1401 with additional emphasis on the oceans, the atmosphere, and weather. Prerequisite: None.

Humanities

Faculty
Barry Phillips, chairman.

Fine Arts students have the opportunity to pursue an interdisciplinary fine arts program with an emphasis in one major area which culminates in an Associate in Fine Arts degree (A. F. A.).

This program is designed to prepare individuals for paraprofessional fine arts occupations, leadership and involvement in the development of community fine arts activities. It allows the student to explore all of the Fine Arts areas: music, visual art, photography, theatre, and dance. The interdisciplinary nature of the program reinforces basic fine arts skills and concepts and gives breadth to the student's fine arts involvements.

Course of Study for Associate in Fine Arts Degree*

(Art Emphasis)

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Art 1311	3	Art 1312 or 1300	3
Art 1321	3	Engl 1312	3
Engl 1311	3	Dr 1310	3
Hum 1310	3	R/TV 1310	3
PE 1123	1	Phot 1331	3
Relg 1301	3	PE 1124	1
Psy 1201	2		

Second Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Art 1371	3	Art 1372	3
Art 2321, 2341 or 2381	3	Engl (Sophomore Level)	3
Engl (Sophomore Level)	3	Govt 2302	3
Govt 2301	3	Hist 2302	3
Hist 2301	3	Phil 2301	3

*The suggested course of study is designed for the A.F.A. degree with a concentration in Art. Similar plans can be designed for music, photography, theatre, etc.

Hum 1310 Introduction to the Fine Arts (3-0) ..... 3 hours
This is a self-paced course which surveys the Fine Arts areas of visual art, photography, music, theatre, and dance. The course is designed to interrelate the aesthetic concepts common to each art form while involving the student in the excitement and action of fine arts activities and personalities. Prerequisite: None.

Industrial Instrumentation

Faculty
Kenneth Hurst, chairman.

Automatic control systems and industrial instrumentation are becoming increasingly important to industrial growth in the Permian Basin area. The operating and maintenance of this equipment in modern industrial installations requires persons that have highly developed skills in installing, operating and maintaining complicated control systems and instruments.

The program in Industrial Instrumentation is designed to provide the student with the skills and the knowledge required for employment as a maintenance and operation technician, instrument shop supervisor, or technical representative for a manufacturing concern.

Course of Study for Associate in Applied Science Degree

First Year

First Semester

Course	Sem. Hrs.
Engl 1311	3
ET 1401	4
II 1301	3
II 1303	3
Math 1313 or More Advanced	3
Phy 1201	2
*PE	1

Second Semester

Course	Sem. Hrs.
Spch 2340	3
ET 1403	4
II 1302	3
II 1304	3
Math 1341 or More Advanced	3
*PE	1

Second Year

Third Semester

Course	Sem. Hrs.
ET 1402	4
II 2301	3
II 2303	3
Govt. 2301 or 2302	3
Phys 1401	4

Fourth Semester

Course	Sem. Hrs.
ET 1404	4
II 2302	3
II 2304	3
DT 1401 or Engr 1301	4 or 3

*H.Ed. 1301 may be substituted for the two 1-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing 24 semester hours in Industrial Instrumentation courses and the necessary electronic prerequisites.

II 1301 Pneumatic Instrumentation I (1-3) ..... 3 hours
This course is designed to provide basic instruction in pneumatic instrumentation; principles of operation and maintenance of most common primary elements, controllers, recorders, valves, and meters. Students will perform a wide variety of experiments with instruments in current industrial use. Prerequisite: None.

II 1302 Pneumatic Instrumentation II (1-3) ..... 3 hours
This course will cover a variety of types of control loops in detail. Set up, calibration, and tuning procedures are included. Considerable time will be spent in the laboratory working with actual plant equipment. This course is recommended for anyone interested in how controllers actually work. Prerequisite: II 1301, or equivalent industrial experience.

II 1303 Elementary Principles & Terminology (1-3) ..... 3 hours
This course presents basic principles of flow temperatures, pressure, level, and other primary physical measurements; terminology of mechanical and pneumatic measurement and control equipment; symbols, nomenclature, schematics and applications. Laboratory experiments and practical problems are included. Prerequisite: None.

II 1304 Basic Instrument Engineering (1-3) ..... 3 hours
This course will cover valve and orifice sizing, practical consideration in de-

signing control systems, techniques of specifying instruments, proper instrument installation practices, and related subjects. This is not a control theory course but is a highly practical course dealing with how to instrument a process. It especially is recommended for instrument men or engineers who want to know what instrumentation is really about. Prior knowledge of pneumatic and electronic control equipment is desirable. Prerequisite: II 1301, 1303.

II 2301 Electronic Instrumentation I (1-3)..... 3 hours
This course covers the design principles, construction, calibration and maintenance of standard electrical instrumentation. Operation of solid state devices in electronic instruments will be presented. Includes hands-on laboratory sessions on measurement, calibration, and troubleshooting, using electrical test equipment. Prerequisite: II 1301, 1303, ET 1401 or equivalent industrial experience.

II 2302 Electronic Instrumentation II (1-3)..... 3 hours
This course presents a continuation of operation and methods of troubleshooting of electronic instruments used in process control. Hands-on experience with simulated processes and complete control loops will be included. Also includes electronic converter and transducers, and principles and practice of control loop wiring. Prerequisite: II 2301 and ET 1402.

II 2303 Process Control (1-3)..... 3 hours
Control terminology, control systems, and controller functions. Equipment specifications for process applications including cascade, ratio, override and feed-forward control with their uses is defined. Prerequisite: II 1301, 1303, 1304.

II 2304 Process Analytical Instrumentation (1-3)..... 3 hours
This course will cover gas chromatographs, infrared spectrographs, most types of oxygen and moisture analyzers and pH and similar electrochemical devices. The course will cover how the analyzers work, what their limitations are, and why they fail. Students will work with several types of analyzers in the laboratory. Prerequisite: II 1302, 2302 or equivalent industrial experience.

Law Enforcement

Faculty
Dr. Oliver Nordmarken, chairman.

The law enforcement degree program at Odessa College gives students a comprehensive understanding of the law enforcement profession.

The associate degree program consists of law enforcement courses, as well as a study of other academic subjects. The Odessa College program will also serve as the first two years of study for baccalaureate and graduate degree programs in criminal justice or law enforcement in senior colleges and universities. An overview of the entire criminal justice system is given through an introductory course. The police role in crime and delinquency is studied as students review the myriad of theories as to cause of crime and suggestions for curbing crime. A realistic view of law enforcement is presented to inform students about actual operations in the career field.

Presented is a study of the Texas and United States laws, which define what types of acts are crimes, the punishment for each offense, who is a law enforcement officer, what powers an officer has, the court system and its powers, the rules governing what evidence can be presented in court, and the new Juvenile Procedure Code.

Law enforcement courses also are helpful to students studying such fields as sociology, psychology, government, and other humanities.

The job market in the law enforcement field continues to be open, with many employment opportunities for both men and women, not only as law enforcement officers, but in related positions.

Courses of Study for Associate in Applied Science Degree

First Year

First Semester

Course	Sem. Hrs.
Engl 1311	3
LE 1301	3
LE 1302	3
Psy 1201	2
Psy 1301	3
Spch 2340	3
Approved Elective	2

Second Semester

Course	Sem. Hrs.
Engl 1312	3
*LE 1303	3
LE 1304	3
H.Ed. 1301	3
Soc 1301	3
Approved Elective	3

Second Year

Third Semester

Course	Sem. Hrs.
Govt 2301	3
Hist 2301	3
LE 2301	3
LE 2302	3
*LE 2303	3

Fourth Semester

Course	Sem. Hrs.
Govt 2302	3
Hist 2302	3
LE 2304	3
LE 2305	3
*LE 2306	3
PE 1149 or 1119	1

*Alternate Elective Law Enforcement Subjects may be substituted.
Approved Electives: OE 1401, Chem 1301 and 2101; Mgt 1301, Read 1301, Span 1311.

Course of Study for Associate in Arts Degree in Law Enforcement

Course	Sem. Hrs.
English	12
Law Enforcement	21
(Seven course core curriculum in LE, including all listed in LE subjects without asterisk).	

Course	Sem. Hrs.
Government	6
History	6
Science and/or Foreign Language	8-12
Humanities or other electives	8-15
Physical Education	4

All of the seven LE core curriculum subjects are transferable and applicable toward any LE degree offered in Texas by agreement of Texas accreditation agencies. All students who plan to go to other institutions for further degrees should contact that institution to assure transferability of all course and credit toward degree plan.

Any variance from prerequisites or suggested course of study must have the prior approval of the Department Chairman.

*Texas Accreditation Agencies have approved the following alternate elective Law Enforcement subjects, in additions to the required 21 semester hours Core Curriculum, for students seeking an Associate Degree which requires 30 semester hours in the professional field:

Course	Sem. Hrs.
*LE 1303, Patrol Administration	3
*LE 2306, Juvenile Procedures	3
*LE 2307, Probation and Parole	3
*LE 2308, Penology	3
*LE 2303, Traffic Management and Supervision	3

Course	Sem. Hrs.
*LE 2309, Traffic Law	3

LE 2307, LE 2308, and LE 2309 may be substituted for LE 1303, LE 2306 or LE 2303 only on prior approval of the Department Chairman when there is a demonstrated need and justification for such substitution.

LE 1301 Introduction to Law Enforcement (3-0) ..... 3 hours
History, development, and philosophy of law enforcement in a democratic society; introduction to agencies involved in the Administration of Criminal Justice; career orientation, Interface between Social Theories and Police Realities. Prerequisite: None.

LE 1302 Police Role in Crime and Delinquency (3-0) ..... 3 hours
An overview of the crime problem designed to introduce the Police Officer to the extent and expansion of its scope; the theories which have been developed as to the cause of crime and the efforts to prevent crime and delinquency; the agencies which deal with the criminal and the direction and progress of efforts at rehabilitation. Prerequisite: None.

LE 1303* Patrol Administration (3-0) ..... 3 hours
An overview of the administration, scope and inner workings of the "Cutting Edge" of the Criminal Justice System, the Police Patrol, delineating the interrelationship of the first line supervisor and the man in the car, the breadth of responsibilities and the significance of the operation. Prerequisite: None.

LE 1304 Legal Aspects of Law Enforcement (3-0) ..... 3 hours
History, development, basic design of criminal law; the elements of criminal offenses generally and specifically under Texas Law; review of classic cases illustrative of general criminal law precepts; discussion of modern theories and direction of criminal law. Prerequisite: LE 1301.

LE 2301 Police — Community Relations (3-0) ..... 3 hours
A review of the history of the police and their image in the eyes of the community; detailing the fluctuations in police acceptance through the years and the vital necessity for public acceptance and support for successful police operation; a review of the potential methods for improving and enlisting community participation and support with a special emphasis on the many current efforts in this direction. Prerequisite: None.

LE 2302 Criminal Procedure and Evidence (3-0) ..... 3 hours
An overview of the criminal law heritage as it applies to the judical process; organization of state and federal courts; procedures from arrest to release; history and philosophy of the rules of evidence; terminology and procedural practices in assuring admissibility with special reference to the Texas State Code of Criminal Procedure and current court interpretations governing searches and seizures and the exclusinary rule. Prerequisite: LE 1304.

LE 2303* Traffic Management and Supervision (3-0) ..... 3 hours
This course covers examination of police responsibilities in traffic planning and law; identification of police policies and procedures in education, engineering, and enforcement responsibilities, analysis of special traffic problems, motor vehicle laws, and accident invesigation techniques. Prerequisite: None.

LE 2304 Criminal Investigation (3-0) ..... 3 hours
The fundamentals of investigative techniques; recording and identifying investigative notes and evidentiary matter; informants, interview and interrogation; follow up procedures and preparation and participation in trial. Prerequiste: LE 2302.

LE 2305 Police Administration (3-0) ..... 3 hours
Principles of organization and management as applied to the peculiar problems of the law enforcement agency; delineation of the problems and functions of the administrator and the vital importance of understanding and cooperation by all participants to reach established goals; each phase explored from the administrative viewpoint. Prerequisite: LE 2302.

LE 2306* Juvenile Procedures (3-0) ..... 3 hours
This course provides an in-depth study of the history, background, and philosophy of court procedures for the handling of juveniles as separate and distinct from adult procedures. The Juvenile Court Act is discussed as generally applied under the laws of the State of Texas. General problems in the handling of juveniles are considered to provide the officer with a working knowledge of the proper methods to be used in the arrest, detention, interview and processing, to assure compliance with current court decisions. Prerequisite: None.

LE 2307* Probation and Parole (3-0) ..... 3 hours
This course introduces the student to the many faceted subject of criminal

corrections. He will study the history and background of the entire field including the evolution through the years to the present philosophy and practice in this area. He will learn the extreme importance of these functions in the attempt to successfully rehabilitate the criminal and the problems and progress under current conditions. Prerequisite: None.

LE 2308* Penology (Jail Operation and Management) (3-0) ..... 3 hours
This course will afford the student an opportunity to acquaint himself with the basic concepts, practices and policies as applied by the present day criminal justice official in the care and custody of the criminals who are under his care. The history and evolution of the prison systems will be studied and the entire situation reviewed in light of the present problems in jail planning, coordination, and in its impact on the community. Prerequisite: None.

LE 2309* Traffic Law (3-0) ..... 3 hours
This course involves a detailed study of the basic principles of traffic control, traffic law enforcement and traffic court procedures in the context of the Texas traffic laws. An in-depth study of the history and background of the traffic law, problems in interpretation and application and accepted procedures in enforcement. Prerequisite: None.

Literature and Languages

Faculty
Dr. Elizabeth Gillette, chairman; Lois Ball, Dr. Rudolph Brewster, Dr. Joe Buice, Dr. Judith Cornes, William Feeler, Dr. John Kilman, Dr. Daryl Lane, Imogene Pilcher, Matt Rees, Rosendo Reyes, Lynn Whitson, Stan Williams.

English

The power to communicate meaning through language in order to build a store of knowledge to pass on to succeeding generations is one of the most distinctive of human accomplishments. Science, literature, technical knowledge, and social organization would not exist without language, for language is used for making explanations, analyzing situations, or discussing the relative merits of various procedures. To be successful, language activities demand precision and forcefulness. Consequently, the student must learn to express himself clearly and effectively. While learning to communicate, he should be exposed to the world's rich heritage of creative literature in order to develop a better understanding of a unified human spirit which transcends geography. This study of the great thoughts of the past should engender a generosity of mind and a magnanimity of spirit which are the foundations of democracy itself and the hope of human progress.

Course of Study for Associate in Arts Degree in English

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Lang 1411	4	Lang 1412	4
Psy 1201	2	PE	1
PE	1	Science	4
Science	4	Elective	3
Elective	3		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 2350	3	Engl 2360	3
Govt 2301	3	Govt 2302	3
Lang 2311	3	Lang 2312	3
*Math 1341 or 2311	3	*Math 1343 or 2313	3
PE	1	PE	1
Elective	3	Elective	3

*It is desirable to have Math 1341 and Math 1343 or Math 2311 and Math 2313.

English

Engl 1300 Basic English (3-0) ..... 3 hours
This compensatory course is designed to improve the student's basic English skills. Emphasis is placed on usage, spelling, punctuation, vocabulary, sentence structure, and paragraph development. This course prepares the student for English 1311, and it will not apply toward any degree at Odessa College. Prerequisite: None.

Engl 1311 Composition and Rhetoric (3-0) ..... 3 hours
This course consists of a study of the essentials of correctness and effectiveness in the mechanics of writing. Special emphasis is placed on reading and writing expository prose. Critical reviews, expository essays, and collateral readings are required. Prerequisite: None.

Engl 1312 Composition and Literature (3-0) ..... 3 hours
Research techniques and selected types of literature—drama, fiction, and poetry—are studied. Critical reviews and supplemental readings are required. Prerequisite: Engl 1311.

Option

Engl 1111 Composition and Drama (3-0) ..... 1 hour
This course enables the student to complete one-third of Engl 1312 in five weeks. Emphasis is on the study of selected dramas from various literary periods. Research techniques and at least one short critical paper are required. English 1111 may be taken concurrently with Engl 1112 (Fiction) and/or Engl 1113 (Poetry). Prerequisite: Engl 1311.

Engl 1112 Composition and Fiction (3-0) ..... 1 hour
This course enables the student to complete one-third of Engl 1312 in five weeks. Emphasis is on the study of selected works of fiction, both novel and short story, from various literary periods. Research techniques and at least one short critical paper are required. English 1112 may be taken concurrently with Engl 1111 and/or Engl 1113. Prerequisite: Engl 1311.

Engl 1113 Composition and Poetry (3-0) ..... 1 hour
This course enables the student to complete one-third of Engl 1312 in five weeks. Emphasis is on the study of selected poems from various literary periods. Research techniques and at least one short critical paper are required. English 1113 may be taken concurrently with Engl 1111 and/or Engl 1112. Prerequisite: Engl 1311.

Engl 2310 Masterpieces of the Western World (3-0) ..... 3 hours
Significant works of western literature from the Classical period through the Renaissance are studied. A research paper or several short critiques are required. Prerequisite: Engl 1312.

Engl 2320 Masterpieces of the Western World (3-0) ..... 3 hours
Significant works from the beginning of the Neoclassical period to the present time are studied. A research paper or several short critiques are required. Prerequisite: Engl 1312.

Engl 2330 Technical Writing (3-0) .. 3 hours
This course, to prepare the student for technical report writing, offers practical experience in the organization of the report and in the proper use of technical terms. Prerequisite: Engl 1312.

Engl 2350 English Literature: From the Beginning through Neoclassic Period (3-0) ..... 3 hours
This course consists of a chronological study of authors, works, and trends in English Literature and is required of all English majors. Prerequisite: Engl 1312.

Engl 2360 English Literature: From the Romantic Period to the Present (3-0) ..... 3 hours
This course consists of a chronological study of authors, works, and trends in English Literature and is required of all English majors. Prerequisite: Engl 1312.

Engl 2380 American Literature from the Beginning to 1860 (3-0) ..... 3 hours
This course treats briefly of colonial writers and writings in order to center attention on major literary figures of the first half of the nineteenth century. Both narrative and expository prose are studied, along with poetry and drama. Prerequisite: English 1312.

Engl 2390 American Literature from 1860 to the Present (3-0) ..... 3 hours
This course surveys great literary movements from the Civil War to the present. Collateral readings supplement selections in the anthology. Prerequisite: English 1312.

Options

On the freshman level, an alternative to the three-credit hour English 1312 is offered. English 1312 may be taken in three one-hour sequence courses: English 1111, Drama; English 1112, Fic-

tion; and English 1113, Poetry. The semester schedule is so constructed that the student may enroll for all three one-hour courses at the same time and complete the equivalent of English 1312 in a single five-week period. Each course lasts for approximately five weeks; at the end of each one-hour course the student may or may not continue the sequence. However, all three segments must be successfully completed before the student receives full, equivalent credit for English 1312, which is prerequisite for all sophomore level English courses at Odessa College.

On the sophomore level, an alternative to the two three-hour English 2380 and English 2390 is offered. These two courses are scheduled in a two-hour time block. During the first half of the semester, the student will complete English 2380. At this point, he may or may not choose to continue with English 2390, which will be completed in the second half of the semester during the same two-hour time block. In this manner, the student can complete six semester hours of sophomore English in one semester. At mid-semester, students who did not take English 2380 may enroll in English 2390 and receive three semester hours credit for the second half of the semester.

The Writing Lab

In conjunction with the English Department, the Writing Lab, located in Wilkerson Hall 211, offers supplemental, individualized instruction in grammar, spelling, and composition to any student who needs improvement in writing ability or skill in literary analysis. It also offers self-paced instruction in the research paper. Assistance is provided by referral by an instructor or on a walk-in basis. Assistance is also provided in one of the formal lab courses described below.

Supplemental Lab Courses

These formal lab courses provide practical, immediate help in selected areas of basic English. They focus specifically on principles of the simple sentence, the compound, and the complex sentence, and on spelling. Students and other interested adults are guided into the courses according to their performance on diagnostic pretests. They may enroll in self-paced or classroom instruction for non-credit or for one, two, or three sequential hours of institutional credit.

English

Engl 1101 The Sentence (0-16) ..... 1 hour
English 1101 reviews parts of speech, patterns of the simple sentence, transformations of the simple sentence, and principles of agreement. The course improves the student's ability to write grammatical sentences. Prerequisite: None.

Engl 1102 Coordination and Subordination (0-16) ..... 1 hour
English 1102 extends the student's understanding of the simple sentence to more complex structures and transformations. The course focuses on basic relationships between ideas and helps the student expand the amount of information conveyed in sentences through the techniques of embedding and sentence combining. Prerequisite: None.

Engl 1103 Spelling (0-16) ..... 1 hour
English 1103 reviews principles of spelling — including phonics, syllabication, spelling patterns, prefixes, suffixes, plurals, hyphenation, and selected problems in word usage and meaning. Prerequisite: None.

Engl 1104 Techniques of Research (0-16) ..... 1 hour
Techniques of research — use of card catalog, journal and periodical indexes, etc.; footnote and bibliography form; restricting a research topic; paraphrasing, etc. — are taught in a self-paced course. Prerequisite: None.

Foreign Languages

The foreign language program at Odessa College can satisfy the needs of most students whose prospective major includes a foreign language. Students should consult carefully the catalog of the senior college they plan to attend.

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

Many students major in the language and teach it. Others use it 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.

Course of Study for Associate in Arts Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Lang 1411	4	Lang 1412	4
Lang 1411 (2nd)	4	Lang 1412 (2nd)	4
Psy 1201	2	PE	1
PE	1	Science	4
Science	4		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore)	3	Engl (Sophomore)	3
Govt 2301	3	Govt 2302	3
*Lang	3-5	*Lang	3-5
**Math 1341 or 2311	3	**Math 1343 or 2313	3
PE	1	PE	1
Elective	3	Elective	3

*Span 2211 and 2212, in addition to Span 2311 and 2312, are suggested for Spanish majors.

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

**It is desirable to have Math 1341 and Math 1343 or Math 2311 and Math 2313.

Foreign Languages

Fr 1411 First Year French I (3-2) .... 4 hours
This is a basic course, conducted in French, for those with no previous experience in French. It emphasizes simple conversation: pronounciation, fluency, and vocabulary. Basic grammar and composition are also presented, and tapes are used in the lab for individual practice. Individual help is available as needed. Prerequisite: None.

Fr 1412 First Year French II (3-2) ... 4 hours
This course is a contination of Fr 1411. Purposes and techniques are the same. Prerequisite: 1411.

Fr 2311 Second Year French I
(3-0) ..... **3 hours**
Conducted in French, this sequence is a continuation of French 1411 and 1412. It emphasizes conversation based on reading assignments and includes grammar and composition. Individual help is available as needed. Prerequisite: Fr 1412 or equivalent.

Fr 2312 Second Year French II
(3-0) ..... **3 hours**
This course is a continuation of Fr 2311. Purposes and techniques are the same. Prerequisite: Fr 2311 or equivalent.

Germ 1411 First Year German I
(3-2) ..... **4 hours**
This is a basic course, conducted in German, for those students who have no previous experience in the German language. It emphasizes simple conversation: pronunciation, fluency, and vocabulary. Basic grammar and composition are also presented. Tapes are used in the lab for individual practice, and individual help is available as needed. Prerequisite: None.

Germ 1412 First Year German II
(3-2) ..... **4 hours**
This course is a continuation of Germ 1411. Purposes are techniques are the same. Prerequisite: Germ 1411 or equivalent.

Germ 2311 Second Year German I
(3-0) ..... **3 hours**
Conducted in German, this sequence is a continuation of Germ 1411 and 1412. It emphasizes conversation based on reading assignments; it includes grammar and composition. Many elements of the course are self-paced. Individual help is available as neeed. Prerequisite: Germ 1412 or equivalent.

Germ 2312 Second Year German II
(3-0) ..... **3 hours**
This course is a continuation of Germ 2311. Purposes and techniques are the same. Prerequisite: Germ 2311 or equivalent.

Span 1311 Conversational Spanish I
(3-0) ..... **3 hours**
The primary purpose of this course is to give the student an opportunity to develop an accurate oral use of the language, based on a sound understanding of structure. Idiomatic expressions, such as are used in daily speech, and conversation in the language will be stressed. Reading will be incidental to the oral objective. Prerequisite: None.

Span 1312 Conversational Spanish II
(3-0) ..... **3 hours**
This course is a continuation of Span 1311. Prerequisite: Span 1311 or equivalent.

Span 1411 First Year Spanish I
(3-2) ..... **4 hours**
Conducted in Spanish, this is a basic course for those who have no previous experience in Spanish. It emphasizes simple conversation: pronunciation, fluency, vocabulary. Basic grammar and composition are also presented. Tapes are used in the lab for individual practice, and individual help is available as needed. Many elements of the course are self-paced. Prerequisite: None.

Span 1412 First Year Spanish II
(3-2) ..... **4 hours**
This course is a continuation of Span 1411. Prerequisite: Span 1411 or equivalent.

Span 2211 Intensive Practice in Spoken Spanish I (2-0) ..... **2 hours**
This is a second-year course designed to build fluency and to expand vocabulary. It is recommended especially for Spanish majors and others who have a practical need for spoken Spanish. The first semester treats vocabulary and structures needed in traveling. Prerequisite: Span 1412 or equivalent or permission of the instructor.

Span 2212 Intensive Practice in Spoken Spanish II (2-0) ..... **2 hours**
This course is a continuation of Span 2211. The second semester provides vocabulary necessary for social and business conversation. Prerequisite: Span 2211 or equivalent or permission of the instructor.

Span 2311 Second Year Spanish I
(3-0) ..... **3 hours**
Conducted in Spanish, this sequence is a continuation of Span 1411 and 1412. It emphasizes conversation based on reading assignments, and it includes grammar and composition. Many elements of the course are self-paced. Prerequisite: Span 1412 or equivalent.

Span 2312 Second Year Spanish II
(3-0) ..... **3 hours**
This course is a continuation of Span 2311. Prerequisite: Span 2311 or equivalent.

Span 2341 Spanish Literature I
(3-0) ..... **3 hours**
This course is a study of modern Latin

American society as seen through contemporary anthropological studies and through fiction. Conducted in Spanish, it consists of conversation based on the reading and includes a grammar review of the first two years. Prerequisite: Span 2312 or equivalent or permission of the instructor.

Span 2342 Spanish Literature II (3-0) ..... 3 hours
This course is a continuation of Span 2341. Prerequisite: Span 2341 or equivalent or permission of the instructor.

Machine Shop

Faculty
Norman Robinson, chairman; Bobby Butler, Joe McCulloch.

The Machine Technology program is designed to give the student a broad background of basic knowledge in the field of mechanical design and production. Skills are developed in the operation of machine tools, in layout, and in blueprint reading so as to provide the student with sufficient knowledge for entry employment in the trade. Students completing the associate degree program will have a sufficient background in mathematics, drafting, management, and communications necessary for advancement into managerial positions.

Course of Study for Associate in Applied Science Degree
Conventional Machine Option

First Year

First Semester

Course	Sem. Hrs.
DT 1401 or Engr 1301	4 or 3
MT 1601	6
MT 1602	6
Psy 1201	2
*PE	1

Second Semester

Course	Sem. Hrs.
Math 1313 or 1321	3
MT 1603	6
MT 1604	6
*PE	1

Second Year

Third Semester

Course	Sem. Hrs.
Engl 1311	3
Mgt 1301	3
MT 2601	6
MT 2602	6

Fourth Semester

Course	Sem. Hrs.
Engl 1312 or Spch 2340	3
Govt 2301 or 2302	3
MT 2603	6
MT 2604	6

*H.Ed. 1301 may be substituted for the two 1-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight hours in MT courses.

MT 1601 Basic Machine Shop Fundamentals (2-8) ..... 6 hours
This is an introductory course in machine shop practices, trade terminology, mathematics, shop safety, shop operations, semiprecision and precision measuring tools, hand tools, and an introduction to high speed tooling. Simple projects will be required. Prerequisite: None.

MT 1602 Precision Tools and Instruments for Machinists (2-8) ..... 6 hours
Measuring projects, simple and complex, are performed in order to practice the units of measure and measuring instruments. Students are introduced to job planning, shop sketching, and blueprint reading. Mathematics for planning and estimating shop work along with shop safety continues to be

stressed. Students learn to grind and sharpen single point cutting tools. Corequisite or prerequisite: MT 1601.

MT 1603 Machines and Their Operations — Part I (2-8) ..... 6 hours
Students continue to practice blueprint reading, shop sketching, shop math, units of measuring and precision measuring by continuous use of precision measuring instruments. Machines stressed are the power hack saw, drill press, milling machines, shapers, and grinders. Basic operations of the engine lathes are required. An integral part of this course is classroom and laboratory demonstration by individual students and the demonstration of maximum machine tool performance. Corequisite or prerequisite: MT 1602.

MT 1604 Machines and Their Operations — Part II (2-8) ..... 6 hours
Students will continue to set up and to operate all machine tools and to produce projects from the simple to the more complex. They practice blueprint reading, precision measuring, and shop sketching in order to become industrially oriented. Corequisite or Prerequisite: MT 1603.

MT 2601 Advanced Machine Tool Operations — Part I (2-8) ..... 6 hours
Students continue to do basic layout practices, bench metal work and advanced machine tool operations related to the major machine tools such as the lathes, mills, shapers and grinders. More complex projects and demonstrations are required utilizing industrially oriented planning and estimating procedures. Emphasis is placed on the quality of the finished product. Prerequisite: MT 1604.

MT 2602 Advanced Machine Tool Operations — Part II (2-8) ..... 6 hours
Quality of finished products continues to be stressed. Instruction emphasizes the selection of materials and fabrication methods, layout and shop organization. Basic Metallurgy of ferrous and nonferrous metals and alloys are introduced. Prerequisite or corequsite: MT 2601.

MT 2603 Metallurgy for Machinists (2-8) ..... 6 hours
This course includes instruction in properties and uses of ferrous metals and alloys, as well as uses of nonferrous metals and alloys. It also includes forging and heat treating steels, specification numbers of steel, and application of industrial tests to determine alloying elements. Shop organization and management, as well as shop safety continue to be stressed. Prerequisite or corequisite: MT 2602.

MT 2604 Special Problems (2-8) .... 6 hours
Students will be assigned special problems to meet specific needs. Modern machining techniques will be emphasized. All assignments will be made on an individual basis. Prerequisite: MT 2603.

Machine Shop
Open-Entry, Clock-Hour Program

The open-entry, clock-hour program is a personalized instructional system designed to offer the student a concentrated individualized curriculum in basic skills. Block time programs meet 20 to 40 hours per week depending upon the course and the personnal schedule of the individual. A student may register for the following program on any week day. Classes start each Monday. Enrollment may be limited to available space. An Associate Degree option is available. Detailed information and admission and registration forms are available in the office of the program director or Counseling Center.

Course No.	Course Name	Clock Hours	Semester Hours	Weeks
MT 1441	Basic Machine Shop Fundamentals	100	4	5
MT 1843	Lathes	260	8	13
MT 1844	Milling Machines	260	8	13
MT 1445	Grinding Machines	100	4	5
MT 1446	Drilling Equipment	100	4	5
MT 1448	Shop Math	100	4	5
MT 1449	Blueprint Reading & Drawing ...	100	4	5

Estimated cost of books and safety equipment—$55.

MT 1441 Basic Machine Shop Fundamentals [(4-16) for 5 Weeks] ..... **4 hours**
This is an introductory course to machine shop. Types, uses, terminology, adjustments, calibrations, and care and maintenance of measuring instruments, hand tools, power saws and machines will be stressed. A study of the relative ease (or difficulty) by which different materials can be machined and the contributing factors will be taught. Prerequisite: None.

MT 1445 Grinding Machines [(2-18) for 5 Weeks] ..... **4 hours**
Surface grinders and cylindrical grinders, both internal and external will be studied. Grinding wheel selection, setup and operation will be emphasized. Prerequisite: MT 1441 or industrial experience.

MT 1446 Drilling Equipment [(2-18) for 5 Weeks] ..... **4 hours**
Students continue to study feeds and speeds. The radial arm drill press and sensitive drill press will be taught. Drill bit grinding and safety will be emphasized. Prerequisite: MT 1441 or industrial experience.

MT 1448 Shop Math [(20-0) for 5 Weeks] ..... **4 hours**
This course is a study of the fundamentals of mathematics as they relate to the machine shop industry. Technical problems involving the setup and operations of all machine tools will be stressed. Prerequisite: None.

MT 1449 Blueprint Reading and Drawing [(4-16) for 5 Weeks] ..... **4 hours**
This course is a study of the fundamental drafting techniques used in the machine shop industry. Emphasis is placed on threaded fasteners, fabrication prints, dimensioning, sectional views, and visualization of objects in a pictorial form. Some shop print drawing will be required. Prerequisite: None.

MT 1843 Metal Turning Lathes [(2-18) for 13 Weeks] ..... **8 hours**
The lathe and its many facets will be stressed; single point cutting tools, feeds and speeds, drilling, reaming, and boring will be taught. Prerequisite: MT 1441 or industrial experience.

MT 1844 Milling Machines [(2-18) for 13 Weeks] ..... **8 hours**
Students continue to study feeds and speeds. Milling cutter selection, work holding devices, and machine setup will be emphasized. Prerequisite: MT 1441 or industrial experience.

Mathematics

Faculty
Charles Sweatt, chairman; Mina Bane, George Brewer, James Fields, Fred Wemple.

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

Course of Study for Associate in Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Lang 1411	4	Lang 1412	4
Math 1345	3	Math 2333	3
*Math 2331	3	PE	1
Psy 1201	2	Phys 1403	4
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Govt 2301	3	Govt 2302	3
Lang 2311	3	Lang 2312	3
Math 2335	3	Math 2351	3
PE	1	PE	1
Phys 2401	4	Phys 2402	4

*Students not prepared for Calculus I will need to start with Math 1381 or earlier math course. It is recommended that Mathematics and Engineering students take Math 2371 if it can be worked into the course load.

Math 1311 Basic Mathematics
(3-0) ..... 3 hours
This course is a study of the four fundamental operations of addition, subtraction, multiplication, and division of whole numbers, decimal fractions, regular fractions, and signed numbers. Additional topics to include percentages and geometric measurements. This course prepares the students for Math 1313, and it will not apply toward any degree at Odessa College. Prerequisite: None.

Math 1313 General Mathematics
(3-0) ..... 3 hours
This course provides a brief review of arithmetic and a study of elementary algebra with applications. Prerequisite: Math 1311 or equivalent.

Math 1321 Technical Mathematics I
(3-0) ..... 3 hours
This course is a study of fundamentals from arthmetic, measurement, approximate numbers, plane geometry, elementary algebra, linear equations, graphs, and right angle trigonometry. Emphasis will be placed upon technical problems. Prerequisite: None.

Math 1323 Technical Mathematics II
(3-0) ..... 3 hours
This course is a study of intermediate algebra, logarithms and applied trigonometry. Emphasis will be placed upon technical problems. Prerequisite: Math 1321 or Math 1313.

Math 1341 College Algebra
(3-0) ..... 3 hours
This course is a study of introduction to sets, functions, and number relations; inequalities; linear and quadratic functions; determinants; polynomial functions; permutations, combinations, and binomial theorem; mathematical induction, exponential and logarithmic functions; and algebra of ordered pairs. Prerequisite: Two years High School Algebra, or Math 1313 or equivalent.

Math 1343 Plane Trigonometry
(3-0) ..... 3 hours
This course is a study of trigonometric functions, formulas, applications of variations of functions with changes in angles, trigonometric equations, identities, solutions of right and oblique triangles, logarithmic functions, inverse functions, and complex numbers. Prerequisite or corequisite: Math 1341 or equivalent competency.

Math 1345 Analytic Geometry
(3-0) ..... 3 hours
This course is a study of fundamental concepts, straight line, circle, conics, simplification of equations, algebraic curves, transcendental curves, polar coordinates, parametric equations, space coordinates, surfaces, vectors, planes and lines. Prerequisite: Math 1341 and Math 1343 or equivalent.

Math 1361 Mathematical Statistics
(3-0) ..... 3 hours
Introduction to the basic elements of statistics. Includes frequency distributions, measures of central tendency, elementary probability, binomial distribution, measures of variation, normal distribution, random sampling, tests of significance, "t" test, chi-square test. For students in education, social science, and physical science, as well as in mathematics. Prerequisite: Math 1341 or equivalent.

Math 1381 Pre-Calculus I (3-0) ..... 3 hours
A functional approach to algebra and trigonometry and emphasizing elementary functions and their graphs, polynomial, rational, and algebraic functions, exponential, logarithmic, and trigonometric functions, inverse trigonometric functions, probability, and matrices. Prerequisite: Two years high school algebra and one semester high school trigonometry, or equivalent.

Math 1383 Pre-Calculus II (3-0) ..... 3 hours
A concise integrated treatment of the concepts necessary for calculus. Ex-

tended elementary functions and their graphs, polynomials, rational and algebraic functions, geometric functions, conics, transformations, polar coordinates and parametric equations. Prerequisite: Math 1381.

Math 2311 Fundamentals of Mathematics I (3-0) ..... 3 hours
This course presents topics from modern algebra, basic concepts of sets, number systems, relations and applications. Basic concepts of elementary mathematics are studied. Math 2311 and 2313 are recommended for nonscience and nonmath majors. Prerequisite: None.

Math 2313 Fundamentals of Mathematics II (3-0) ..... 3 hours
This course presents topics from geometry, equivalence and congruence, position and shape, measurement, the nature of proof, mathematical systems, probability and statistics. Basic concepts of elementary mathematics are studied. Prerequisite: Math 2311.

Math 2331 Calculus I (3-0) ..... 3 hours
This course is a study of the rate of change of a function (limits), derivatives of algebraic and trigonometric functions, integration, and applications. Prerequisite or corequisite: Math 1345 or 1383.

Math 2333 Calculus II (3-0) ..... 3 hours
In this course the topics of Mathematics 2331 are extended to include the differention and integration of a wider class of functions including the transcendental functions. Also included are the application of these processes to the solution of a wider range of problems including moments of mass. Prerequisite: Math 2331.

Math 2335 Calculus III (3-0) ..... 3 hours
This course is a study of sets, functions, vector fields, partial derivatives, power series, and integration theory. Included will be a study of line, surface, and multiple integrals. Prerequisite: Math 2333.

Math 2351 Differential Equations (3-0) ..... 3 hours
This course is a study of orthogonal trajectories, hyperbolic functions, linear differential equations, non-homogeneous equations, differential operators, the Laplace Transform, inverse transforms, applications, systems of equations, equations of order one and higher degree, and special equations of order two. Prerequisite: Math 2333.

Math 2371 Linear Algebra (3-0) ..... 3 hours
A study of vector spaces, linear transformations, matrix algebra, eigenvalues, eigenvectors, and applications. Prerequisite: Math 2333.

Medical Laboratory Technology

Faculty
Joel Smith, chairman; Annette McMinn. *Dr. Kris Challapalli and J. Michael Woods, lecturers.*

Medical Laboratory Technology is a special program of combined academic and clinical training which, during a 22-month period, prepares the student for entry skills in medical laboratory techniques; completes the prerequisites for writing the ASCP certification examination in the category, Medical Laboratory Technician; and leads to an Associate of Applied Science Degree. The laboratory practicum is under the full-time supervision of a qualified educational coordinator at an affiliated clinical laboratory, and the entire program is directed 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, the student must be a high school graduate or equivalent; achieve a satisfactory score on selected college entrance examination; show evidence of good physical and mental health; and have the approval of the Medical Laboratory Admissions Committee. Applicants are encouraged to submit their applications by June 15 for review by the Admissions Committee.

The student must maintain a "C" average or better for all courses taken and must attain no grade lower than "C" in any Medical Laboratory Technology course. Students failing to meet

these scholastic requirements will be dropped from the course.

Students wishing to apply for admission or seeking additional information should contact the Chairman, Medical Laboratory Technology Department, Odessa College, P.O. Box 3752, Odessa, Texas 79760.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
MLT 1601	6	MLT 1602	6
MLT 1211	2	MLT 1212	2
MLT 1221	2	MLT 1222	2
Chem 1301 and 1101	4	Chem 2303 and 2103	4
Engl 1311	3	Engl 1312	3
Psy 1201	2	*PE	1

Summer Session (First Term)

MLT 1123	1
Govt/Hist	3

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
MLT 2602	6	MLT 2601	6
MLT 2212	2	MLT 2211	2
MLT 2221	2	MLT 2222	2
Biol 1401	4	Biol 1402	4
*PE	1		

Summer Session (First Term)

MLT 2123	1
Math 1313 or More Advanced	3

*H.Ed. 1301 may be substituted for the two 1-hour PE Courses.

MLT 1123 Clinical Practicum (0-20) ..... 1 hour
The twenty hours of clinical practicum will be spent at an affiliated clinical laboratory working in an assigned department under the supervision of a Medical Technologist and a Pathologist. Prerequisite: MLT 1602.

MLT 1211 Urinalysis and Hematology Lab (0-8) ..... 2 hours
This course will illustrate and reinforce the content of MLT 1601. The theory, principle, procedure and performance of selected techniques employed in urinalysis, hematology and coagulation for diagnosing and/or monitoring disease processes will be emphasized Laboratory safety will be stressed. Corequisite: MLT 1601.

MLT 1212 Immunology and Immunohemataology Lab (0-8) 2 hours
This course will illustrate and reinforce the content of MLT 1602. The theory, principle, procedure and performance of selected techniques employed in immunodiagnosis will be emphasized. Procedures used for donor screening, antibody identification and the cross-matching of blood for transfusion will be studied. Laboratory safety will be stressed. Corequisite: MLT 1602.

MLT 1221 Clinical Practicum (0-12) ..... 2 hours
The twelve hours of clinical practicum will be spent at an affiliated clinical laboratory working in an assigned department under the supervision of a Medical Technologist and a Pathologist Corequisite: MLT 1601.

MLT 1222 Clinical Practicum (0-12) ..... 2 hours
The twelve hours of clinical practicum will be spent at an affiliated clinical laboratory working in an assigned de-

partment under the supervision of a Medical Technologist and a Pathologist. Corequisite: MLT 1602.

MLT 1601 Urinalysis and Hematology
(6-0)..... 8 hours
This course introduces the student to the fundamentals of Medical Laboratory Technology. The student will study professional ethics and nursing arts that are essential to the medical laboratory. Paricular emphasis will be placed upon the study of theory and practical application of urinalysis, hematology and coagulation procedures and their interpretation. Prerequisite: Admission to the Medical Laboratory Technology Program or by special permission. Corequisites: MLT 1211 and MLT 1221.

MLT 1602 Immunology and Immunohematology
(6-0)..... 6 hours
This course will consist of the study of immunology and immunohematology. Emphasis will be placed upon the study of the antigen-antibody reactions and their use in serological testing and blood banking procedures. Prerequisite: MLT 1601 or special permission from the instructor. Corequisites: MLT 1212 and MLT 1222.

MLT 2123 Clinical Practicum
(0-20)..... 1 hour
The twenty hours of clinical practicum will be spent at an affiliated clinical laboratory working in an assigned department under the supervision of a Medical Technologist and a Pathologist. Prerequisite: MLT 2602.

MLT 2211 Clinical Microbiology Lab
(0-8)..... 2 hours
This course will illustrate and reinforce the content of MLT 2601. The theory, principle, procedure and performance of selected techniques employed in clinical microbiology for the isolation and identification of microorganisms pathogenic to man will be emphasized. Laboratory safety will be stressed. Corequisite: MLT 2601.

MLT 2212 Clinical Chemistry Lab
(0-8)..... 2 hours
This course will illustrate and reinforce the content of MLT 2602. The theory, principle, procedure, and performance of selected techniques employed in clinical chemistry for diagnosing and/or monitoring disease processes of a metabolic nature will be emphasized. Laboratory safety will be stressed. Corequisite: MLT 2602.

MLT 2221 Clinical Practicum
(0-12)..... 2 hours
The twelve hours of clinical practicum will be spent at an affiliated clinical laboratory working in an assigned department under the supervision of a Medical Technologist and a Pathologist Corequisite: MLT 2601.

MLT 2222 Clinical Practicum
(0-12)..... 2 hours
This twelve hours of clinical practicum will be spent at an affilated clinical laboratory working in an assigned department under the supervision of a Medical Technologist and a Pathologist. Corequisite: MLT 2602.

MLT 2601 Clinical Microbiology
(6-0)..... 6 hours
This course will consist of the study of microorganisms that are of medical importance to man. Included will be the study of bacteriology, mycology, and parasitology. Emphasis will be placed upon specimen requirements, isolation, and culture techniques, staining characteristics, and biochemical tests used in the identification of pathological microorganisms. Safety measures to prevent the spread of infection will be stressed. Prerequisite: MLT 2602. Corequisite: MLT 2211 and MLT 2222.

MLT 2602 Clinical Chemistry
(6-0)..... 6 hours
This course will consist of the study of clinical chemistry. A brief review of general chemistry, chemical calculations and reagent preparation will be given. Emphasis will be placed upon the theory and practical application of clinical chemistry procedures and their interpretation in relation to disease conditions. Manual and automated chemistry procedures will be studied. Prerequisite: MLT 1602. Corequisite: MLT 2212 and MLT 2221.

Mid-Management

Faculty
Sid Streicher, chairman; Clinton Forbes, Carole McCarter, Jack Mazy, Paul Tittle.

The primary objective of the Mid-Management Program is to prepare each student for full-time employment in supervision or management. The program in the classroom is combined with actual on-the-job experience in the student's chosen career field. The student will work as a regular, part-time paid employee in an approved business firm.

Mid-Management students may choose one of four "option" programs available. Students who are specifically interested in careers in retailing or marketing should enroll in the Marketing Management Option. Students who plan careers in the field of fashion merchandising or fashion retailing should enroll in the Fashion Merchandising Option. Students who plan careers in some phase of industrial production, oil or gas production, or machine fabrication should enroll in the Industrial Supervision Option. The General Management Option is available for students who plan careers in some other business or industrial field and for students who have not chosen a specific career field. Students in the petroleum marketing and supermarket management fields will find specific courses available to them in addition to the courses in the Marketing Management Option.

Many businesses, both large and small, are actively seeking graduates of Associate Degree programs. The shortage of promotable people in the supervisory and middle-management ranks virtually assures the graduate a challenging career with rewarding promotional possibilities. Firms which have their own management training programs hire graduates of Associate Degree programs as readily as they do graduates with the baccalaureate degree. Each of the Mid-Management options leads to the Associate of Applied Science degree.

Course of Study for Associate in Applied Science Degree
General Management Option

First Year

First Semester

Course	Sem. Hrs.
Engl 1311	3
Govt 2301 or 2302	3
Mgt 1116	1
Mgt 1301	3
Mgt 1321	3
Psy 1202	2
PE	1
Approved Elective	3

Second Semester

Course	Sem. Hrs.
BA 1301	3
Engl 1312	3
Mgt 1117	1
Mgt 2322	3
Math	3
PE	1
Approved Elective	3

Second Year

Third Semester

Course	Sem. Hrs.
EDP 2301	3
Mgt 1303	3
Mgt 2116	1
Mgt 2302	3
Mgt 2304	3
Approved Elective	3

Fourth Semester

Course	Sem. Hrs.
BA 2311	3
Mgt 2117	1
Mgt 2301	3
Mgt 2303	3
Spch 2340	3
Approved Elective	3

Approved Electives: Any other Mgt course; Any EDP course; OE 1404; BA 2312; BA 1305; Eco 1301; Eco 2301; Eco 2302; Psy 1301; Psy 2301; Soc 1301; Soc 2301; Soc 2303.

Course of Study for Associate in Applied Science Degree
Marketing Management Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BA 1301	3	Engl 1312	3
Engl 1311	3	Mgt 1117	1
Mgt 1321	3	Mgt 2332	3
Mgt 1116	1	Govt 2301 or 2302	3
Mgt 1301	3	PE	1
Mgt 1331	3	Mgt 2322	3
Psy 1201	2	Approved Elective	3
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
EDP 2301	3	BA 2311	3
Mgt 2116	1	Mgt 2117	1
Mgt 1303	3	Mgt 2301	3
Mgt 2302	3	Mgt 2303	3
Mgt 2304	3	Spch 2340	3
Approved Elective	3	Approved Elective	3

Approved Electives: Any other Mgt course; any other EDP course; OE 1404; BA 2312; BA 1305; Eco 1301; Eco 2301; Eco 2302; Psy 1301; Psy 2301; Soc 1301; Soc 2301; Soc 2303.

Course of Study for Associate in Applied Science Degree
Fashion Merchandising Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BA 1301	3	Engl 1312	3
Engl 1311	3	Govt 2301 or 2302	3
Mgt 1116	1	Mgt 1117	1
Mgt 1301	3	Mgt 1342	3
Mgt 1331	3	Mgt 2332	3
Mgt 1341	3	Approved Elective	3
Psy 1201	2	PE	1
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
EDP 2301	3	BA 2311	3
Mgt 2116	1	Mgt 2301	3
Mgt 2343	3	Mgt 2303	3
Mgt 2304	3	Mgt 2344	3
Mgt 1303	3	Mgt 2117	1
Approved Elective	3	Spch 2340	3

Approved Electives: Any other Mgt course; OE 1404; BA 2312; BA 1305; Eco 1301; Eco 2301; Eco 2302; Psy 1301; Psy 2301; Soc 1301; Soc 2301; Soc 2303.

Course of Study for Associate in Applied Science Degree
Industrial Supervision Option

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
BA 1301	3	Engl 1312	3
Engl 1311	3	*Math	3
Govt 2301 or 2302	3	Mgt 1117	1
Mgt 1116	1	Mgt 1302	3
Mgt 1301	3	Mgt 1362	3
Mgt 1361	3	Approved Elective	3
Psy 1201	2	PE	1
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Eco 1301	3	EDP 2301	3
Mgt 2116	1	Mgt 2117	1
Mgt 2304	3	Mgt 2364	3
Mgt 2363	3	Mgt 2302	3
Mgt 1303	3	Approved Elective	3
Approved Elective	3	Approved Elective	3

Approved Electives: Any other Mgt course; Read 1310; Any other Math course; Any Accounting course; Any other Eco course; Psy 1301; Soc 1301; Soc 2303. Any Occupationally oriented course which has a direct bearing on the student's career plan.

*Math 1311; Math 1313; Math 1321; Math 1301; Math 1303; Math 2301. The student may choose any one of these which will further his career and fit his existing skill level in mathematics.

Mgt 1116, 1117, 2116, 2117
Mid-Management Internships
(1-20) ..... 1 hour each
All Mid-Management students will enroll in the Mid-Management program's supervised internship each semester. Attention is given to specific on-the-job problems, modern business practices, human relations, and job finding techniques. Instruction will include a one-hour seminar and twenty internship hours each week. Prerequisite: None.

Mgt 1301 Introduction to
Management (3-0) ..... 3 hours
The essentials of management are studied, including the functions of management and the application of management principles as they relate to the first line supervisor. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 1302 Introduction to Transportation
Management (3-0) ..... 3 hours
This course presents an overview of domestic transportation and traffic management. The course's aim is to describe the transportation system and make the student aware of how it can be used. Attention is given to government regulation and the economics of transportation. Topics such as bills of lading and checking freight rates are presented with a view to practical application. Prerequisite: None.

Mgt 1303 Communication
Management (3-0) ..... 3 hours
This is a creative communication course designed to provide the mid-management student with effective methods of creating understanding with his fellow employees and with his community within the management environment. Emphasis is placed on perfecting business communication techniques in the various channels of com-

munication. Verbal, nonverbal, and written communication media will be covered as they pertain to the needs of the student. Prerequisite: None.

Mgt 1321 Principles of Marketing (3-0) ..... 3 hours
The course introduces the field of marketing and describes and analyzes important marketing activities and institutions. A brief analysis of some of the economic, psychological, and sociological factors which influence marketing activities is included. Case studies are used to relate marketing principles to marketing management situations. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 1331 Principles of Retailing (3-0) ..... 3 hours
This course studies the modern retailing industry. The major course divisions concern the structure and environment of retailing, the requirements of retailing management, retail merchandising, and sales promotion. Case studies are used to examine the application of retailing principles to actual operating situations. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 1341 Introduction to Fashion Merchandising (3-0) ..... 3 hours
The course takes an overview of the general field of fashion merchandising. Attention is given to the functions of the fashion merchandiser as they relate to the retail industry in general. Emphasis is placed on the organization and operation of the fashion merchandising segment of a department store or specialty shop. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 1342 Fashion Sales Management (3-0) ..... 3 hours
This course views the role of selling as related to the field of fashion merchandising. Emphasis is placed on effective techniques of selling, on the training of sales people, and on the management of sales people and sales functions. Role playing and case studies will focus on realistic situations. Prerequisite: None.

Mgt 1361 Principles of Production Supervision (3-0) ..... 3 hours
This is an introductory course in production management, presenting the fundamental concepts of this field. Attention is given to the formulation of objectives and the use of a systems approach to production. An integrated managerial perspective is maintained throughout the course. Prerequisite: None.

Mgt 1362 Industrial Safety (3-0) ..... 3 hours
This course develops the principles and practices of safety management. An overview is given of the legal requirements of the Occupational Safety and Health Act as well as of the basic concepts and methods of administering an industrial safety program. Prerequisite: Mgt 1361.

Mgt 2301 Management Development (3-0) ..... 3 hours
The relationships between management principles and actual management situations are examined in this course. Case studies and projects are based on students' jobs and are taken from various fields, including personnel management, sales management, and merchandise management. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: Mgt 1301.

Mgt 2302 Principles of Personnel Management (3-0) ..... 3 hours
Manager-employee relationships, oriented toward the personnel responsibilities of all managers, form the basis of this course. The course is designed to provide techniques in developing and supervising people. Attention is directed toward organization principles, labor relations, understanding people, communicating, and the techniques of building an effective working team. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 2303 Introduction to Public Relations (3-0) ..... 3 hours
The course introduces the techniques of public relations applied to supervisory and management positions. Customer relations are emphasized. Attention is given to programming a total public relations effort and selecting the strategy, media and persuasive

devices which will accomplish given objectives. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: None.

Mgt 2304 Introduction to Human Relations (3-0) ..... 3 hours
This course examines the field of human relations as it applies to modern business management. Emphasis is placed on the productive management of the human resources available to a business or industrial firm. Innovative techniques of the behavioral science fields are introduced for discussion. Case studies are used to apply behavioral theories to actual situations. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: Mgt 1301.

Mgt 2322 Marketing Management (3-0) ..... 3 hours
This course is a continuation of Mgt 1321, Principles of Marketing. Emphasis is placed on the management of the activities associated with marketing and distribution processes and institutions. Case studies are used to apply the principles of marketing management to actual situations. A portion of the course is a marketing management simulation. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: Mgt 1321.

Mgt 2323 Petroleum Marketing Operations (3-0) ..... 3 hours
This is a self-paced course designed to acquaint the student with the unique marketing activities involved in the marketing of petroleum products on the wholesale and retail levels. A portion of the assignments will necessitate a period of time working in or observing petroleum marketing in action. The details of these assignments will be worked out by the instructor and each student in individual conference. Enrollment is by permission of the instructor. The course will be scheduled as requested by students. Prerequisite: Mgt 1321 and permission of the instructor.

Mgt 2324 Principles of Supermarket Operations (3-0) ..... 3 hours
This is a self-paced course designed to acquaint the student with the principal methods used in the operation of supermarkets. The material includes organization, planning, and control for each department in the major supermarket. Students will be expected to complete a number of required assignments. Enrollment is by permission of the instructor. The course will be scheduled as requested by students. Prerequisite: Mgt 1321 and permission of the instructor.

Mgt 2332 Retail Business Management (3-0) ..... 3 hours
This course is a continuation of Mgt 1331, Principles of Retailing. Emphasis is placed on the management of personnel, merchandise, and other resources of the retail store. Case studies are used to apply the principles of retail management to actual conditions. The course is organized to include two hours of lecture-discussion and one hour of seminar-discussion each week. Prerequisite: Mgt 1331.

Mgt 2343 Fashion Buying (3-0) ..... 3 hours
This course covers the fundamentals of effective buying as it relates to fashion retailing. Attention is given to the planning of correct purchases, the estimation of demand, the selection of sources of supply, and product merchandising. Prerequisite: Mgt 1341.

Mgt 2344 Fashion Promotion (3-0) ..... 3 hours
This course emphasizes the relationship which must exist between personal selling, visual merchandising, advertising, and fashion shows so that successful merchandising of fashion products may be accomplished by the fashion retailer. Prerequisite: None.

Mgt 2363 Production Planning and Control (3-0) ..... 3 hours
This course is a continuation of Mgt 1361, Principles of Production Supervision. It emphasizes planning analysis and the control of production operations. Attention is given to procurement and inventory control. Logistics, methods analysis, and work measurement are included as major sections of the course. Prerequisite: Mgt 1361.

Mgt 2364 Materials Management (3-0) ..... 3 hours
This course presents the management-oriented skills needed in the materials management function. Attention is given to purchasing, inventory control, and traffic. Cost control and cost reduction are integrated sections of the course. Prerequisite: Mgt 1361.

Music

Faculty
Jack Hendrix, chairman; Maurice Alfred, Kathryn Hoppe, Bernard Rose.

The Music Department of the college provides pre-professional training for the music major, as well as general studies for personal enjoyment and enrichment. It also functions in a public relations capacity for the college by means of its performing organizations. It serves the community in cultural and entertaining programs; it assists the teachers in the area by means of special course offerings; it also offers the required music courses for majors in other fields. Odessa College is a Community/Junior College Member of the National Association of Schools of Music and a member of the Texas Association of Music Schools.

The several music organizations, including the band, orchestra, choir, and various ensemble groups, offer training and cultural enjoyment. Frequent performances by the artist faculty, in solo and with the symphony, add to the cultural opportunities afforded the community.

All music majors and minors are expected to attend concerts and recitals as a part of their music and cultural growth. These include student recitals, programs by Midland-Odessa Symphony and Chorale, Civic Concert Association, Odessa College Fine Arts Series, and other designated recitals.

Course of Study for Certificate of Completion in Music

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Mu 1335	3	Mu 1336	3
Mu 1429	4	Mu 1430	4
*Mu 1101	1	*Mu 1102	1
*Mu 1115, 1116, 1117, or 1118	1	*Mu 1115, 1116, 1117, or 1118	1
+Mu 1211	2	+Mu 1212	2
+Mu 1121	1	+Mu 1122	1
+Mu 1125, 1126, or 1127	1	+Mu 1125, 1126, or 1127	1
#Mu 1123	1	#Mu 1124	1
##Appl Mu 1137	1	##Appl Mu 1138	1
Appl Mu: Principal Instrument or Voice	2-3	Appl Mu: Principal Instrument or Voice	2-3
Engl 1311	3	Engl 1312	3
PE	1	PE	1
Psy 1201	2		

*Required for Instrumental majors
+Required for Vocal majors
#Required for Keyboard majors
##Piano required for non-keyboard majors

Second Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Mu 2231	2	Mu 2232	2
Mu 2333	3	Mu 2334	3
*Mu 2101	1	*Mu 2102	1
*Mu 1115, 1116, 1117, or 1118	1	*Mu 1115, 1116, 1117, or 1118	1
+Mu 2211	2	+Mu 2212	2
+Mu 2121	1	+Mu 2121	1
+Mu 1125, 1126, or 1127	1	+Mu 1125, 1126, or 1127	1
#Mu 2123	1	#Mu 2124	1
##Appl Mu 2137	1	##Appl Mu 2138	1
Appl Mu: Principal Instrument or Voice	2-3	Appl Mu: Principal Instrument or Voice	2-3
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Phys 1301	3	Hist 2302 or Govt 2302	3
Hist 2301 or Govt 2301	3		

*Required for Instrumental majors
+Required for Vocal majors
#Required for Keyboard majors
##Piano required for non-keyboard majors
To receive the Associate in Arts Degree, the student must complete 1 year of math or science, and complete 12 hours of social sciences, including Hist 2301 and 2302 and Govt 2301 and 2302, in addition to the above courses.

Mu 1101, 1102, 2101, 2102 Concert Band (0-3) ..... 1 hour each
The activities of the band include concert music, pep rallies, and selected college functions. The personnel of the concert band includes many non-music majors, and band personnel are expected to participate in daily rehearsals and all major performances. The band serves as a required laboratory for instrumental music majors. Prerequisite: None.

Mu 1103, 1104, 2103, 2104 Jazz Ensemble (0-3) ..... 1 hour each
Jazz ensemble is open to musicians having jazz experience or to those with instrumental skills and a desire for leaving jazz techniques. The course consists of a minimum of three hours of rehearsal per week and playing at special college functions. Prerequisite: None.

Mu 1105, 1106, 2105, 2106 Orchestra (0-4) ..... 1 hour each
The orchestra is open to students who can play music of moderate difficulty upon some orchestral instruments. Prerequisite: None.

Mu 1107, 1108, 2107, 2108 Vocal Ensemble (0-3) ..... 1 hour each
The course is an elective designed to acquaint the student with chamber music for the small voice ensemble of all periods of music, and to provide the advanced student with an opportunity to study the style and performance of a large amount of choral literature. Prerequisite: Students are selected from the A Cappella Choir by audition and are expected to participate in all major performances.

Mu 1109, 1110, 2109, 2110 Chamber Music (0-3) ..... 1 hour each
This course is designed to examine and perform instrumental ensemble literature in which there is only one player to each part. The emphasis lies on the ensemble, not on the individual player, and each instrument is as important as any other in the performance of the music. Prerequisite: Adequate facility on an instrument.

Mu 1111, 1112, 2111, 2112 A Cappella Choir (0-3) ..... 1 hour each
The A Cappella Choir serves as a laboratory for the music major whose primary instrument is voice; it also serves as an elective for the non-music major. The choir studies choral literature representing many styles and composers from all periods of music; it also studies fundamental voice techniques. Choir personnel are expected to participate in all major performances.

Prerequisite: Students are admitted by audition with acceptance based on musical ability and voice quality.

Mu 1211, 1212, 2211, 2212 A Cappella Choir (0-5) ..... 2 hours each
The A Cappella Choir serves as a laboratory for the music major whose primary instrument is voice, or as an elective for the non-music major. The choir studies choral literature representing many styles and composers from all periods of music, and fundamental voice techniques. Choir personnel are expected to participate in all major performances. Prerequisite: Students are admitted by audition with acceptance based on musical ability and voice quality.

Applied Music (Class Lessons)

Mu 1113, 1114, 2113, 2114 Secondary Instrumental (0-½) ..... 1 hour each
Secondary instrumental lessons are designed for the non-instrumentalist who is a music major, the instrumental major on a secondary instrument or for elective credit. Rudimentary principles of the instrument and appropriate exercises are studied. Representative repertoire will be chosen from the solo listings of the University Interscholastic League. Prerequisite for Mu 1113: None.

Mu 1115 Brass (0-3) ..... 1 hour
This is a course for music education majors, designed to meet the minimum proficiency requirements on the brass instruments through the study of the basic techniques, a limited repertoire, and the methods of teaching them, culminating in the ability to play the scales on these instruments. Prerequisite: None.

Mu 1116 Percussion (0-3) ..... 1 hour
This is a course designed to meet the minimum requirements in percussion instruments for the music education major through the study of the snare drum rudiments, the tuning and other techniques of playing the tympani and limited performance ability on the other instruments of the battery. Prerequisite: None.

Mu 1117 Strings (0-7) ..... 1 hour
This is a course for music education majors, designed to meet the minimum proficiency requirements on the stringed instruments through the study of the basic techniques, a limited repertoire, and the methods of teaching them, culminating in the ability to play all the scales on these instruments. Prerequisite: None.

Mu 1118 Woodwinds (0-3) ..... 1 hour
This is a course for music education majors designed to meet the minimum proficiency requirements on the woodwind instruments through the study of the basic techniques, a limited repertoire, and the methods of teaching them, culminating in the ability to play the scales on these instruments. Prerequisite: None.

Mu 1121, 1122, 2121, 2122 Opera Workshop (0-3) ..... 1 hour each
Opera workshop serves as a laboratory for the student interested in dramatic music and its presentation. Outside preparation of various assignments for class and public presentation, including night rehearsals, will be required when necessary. The course is open to all students. Prerequisite: None.

Mu 1123, 1124, 2123, 2124 Piano Ensemble and Accompanying (0-3) ..... 1 hour each
Piano sight reading, ensemble and accompanying is designed to improve ensemble playing and to provide training in the techniques of vocal and instrumental accompanying. Four semester hours are required of all keyboard majors and concentrations. Consent of instructor is required for enrollment by others.

Mu 1125 French Diction (2-0) ..... 1 hour
This course is a study of the French language with an emphasis on diction and designed to promote the ability to sing in French. Vocabulary will be derived from words commonly used in song and opera. The student's own appropriate literature will be studied with other selections added to it at the discretion of the instructor. Prerequisite: None.

Mu 1126 German Diction (2-0) ..... 1 hour
This course is a study of the German language with an emphasis on diction and designed to promote the ability to sing in German. Vocabulary will be derived from words commonly used in song and opera. The student's own appropriate literature will be studied with other selections added to it at the discretion of the instructor. Prerequisite: None.

Mu 1127 Italian Diction (2-0) ..... 1 hour
This course is a study of the Italian language with an emphasis on diction and designed to promote the ability to sing in Italian. Vocabulary will be de-

rived from words commonly used in song and opera. The student's own appropriate literature will be studied with other selections added to it at the discretion of the instructor. Prerequisite: None.

Mu 1203, 1204, 2203, 2204 Jazz Ensemble (0-5) ..... 2 hours each
Jazz Ensemble is open to musicians having jazz experience or to those with instrumental skills and a desire for learning jazz techniques. The course consists of daily rehearsals and playing at special college functions. Prerequisite: Students are admitted by audition with acceptance based on musical ability.

Mu 1429, 1430 Freshman Music Theory (3-3) ..... 4 hours each
This course includes rhythmic reading, sight-singing, partwriting, keyboard harmony, and ear training. Rhythm proceeds through simple and compound time, sixteenth notes, syncopations, and triplets; sightsinging completes *Oxford Book 3;* partwriting includes triadic chord connection, with cadence formulas at the keyboard. Ear training is correlated to each problem.
The second semester includes the divided beat, changing meters, cross rhythms, and melodies which encompass all of the diatonic triads. In partwriting, and in keyboard harmony, modulation to closely related keys and harmonization of melodies are the problems. Ear training is correlated to each problem. Prerequisite for Mu 1430: Mu 1429.

MU 2231, 2232 Advanced Sightsinging and Ear Training (2-1) ..... 2 hours each
Students analyze and sing melodies which encompass seventh chords, modes, and chromaticism. Partsinging is included. The ear training is correlated to the sightsinging material and to the related material in Mu 2333, 2334. Prerequisite: Mu 1430.

Mu 2333, 2334 Advanced Study of Harmony (2-1) ..... 3 hours each
Secondary seventh chords, altered chords, and chromatic harmony are studied, as are nonharmonic tones. Students harmonize basses and melodies, and analyze music of standard composers. Keyboard harmony is correlated to each problem. Prerequisite: Mu 1430.

Music History and Literature

Mu 1328 Music Appreciation (3-0) ..... 3 hours
This is a course for all students, except music majors, who wish to acquire the basic information and techniques necessary for the intelligent appreciation of the art of music, as related to the major style periods in music history. Guided listening experiences, through use of the extensive record collection in the listening laboratory, are an important part of the course. Prerequisite: None.

Mu 1335, 1336 Introduction to Music Literature (3-0) ..... 3 hours each
This is a survey course, taught chronologically, whose prime objective is to introduce the student to the various periods of musical composition from ancient to present time. It seeks to acquaint the student with both the historical aspect and the music itself. Extensive use is made of the large collection of phonograph records in the listening laboratory. This course is required of all music majors. Prerequisite to Mu 1336: Mu 1335.

Applied Music

Final grades in Applied Music are determined by jury audition each semester, the final performance in each course being rated in accordance with the progress achieved and based on the minimum daily required hours of practice as set forth in the catalog.

Private Lessons

Mu 1337, 1338 Freshman Piano (0-1) ..... 3 hours each
This course is designed for a performance major in piano, and the minimum representative requirements are these: BACH: four three-part inventions or two Preludes and Fugues, or the equivalent; SONATAS: two from Haydn, Mozart, or Beethoven (Op. 2, No. 1, or Op. 14, Nos. 1 and 2); TECHNIC: all scales and arpeggios, four octaves at MM. 120, four notes to the beat; standard Etudes: standard literature from Romantic and Contemporary periods; everything from memory; sight reading; ensemble. Prerequisite for Mu 1338: Mu 1337.

Mu 1237, 1238 Freshman Piano
(0-1) ..... 2 hours each
This course is designed for the music education major whose primary instrument is piano or for elective credit. The minimum representative requirements are these: BACH: four two-part inventions or two Preludes and Fugues, or the equivalent: SONATAS: easier opus numbers by Haydn, Mozart, Beethoven; TECHNIC: all scales and arpeggios, four octaves, four notes to the beat; achieve MM. 120; Czerny, Op. 299, or equivalent; standard Etudes; standard literature from Romantic and Contemporary periods; sight reading; ensemble. Prerequisite for Mu 1238: Mu 1237.

Mu 1339, 1340 Freshman Organ
(0-1) ..... 3 hours each
This course is designed for a performance major in organ, and the minimum representative requirements are these: Gleason, *Method of Organ Playing;* Dupre, *Seventy-Nine Chorals;* Bach, *Eight Little Preludes and Fugues* and/or *Liturgical Year;* repertoire representative of "The Cathedral" Prelude and Fugue (Bach) and "Station of the Cross XI" (Dupre); standard sonatas; standard literature from Romantic and Contemporary periods, everything from memory; additional technic as needed. Prerequisite for Mu 1339: Must be able to perform Bach Two-part and Three-part Inventions or equivalent on the piano. Prerequisite for Mu 1340: Mu 1339.

Mu 1239, 1240 Freshman Organ
(0-1) ..... 2 hours each
This course is designed for the music education major whose primary instrument is organ or for elective credit. The minimum representative requirements are these: Gleason, *Method of Organ Playing;* Dupre, *Seventy-nine Chorals;* Bach, *Eight Little Preludes and Fugues* and/or *Liturgical Year;* standard sonatas; standard literature from Romantic and Contemporary periods; at least one composition memorized; additional technic as needed. Prerequisite for Mu 1239: Must be able to perform Bach Two-part and Three-part Inventions or equivalent on the piano. Prerequisite for Mu 1240: Mu 1239.

Mu 2337, 2338 Sophomore Piano
(0-1) ..... 3 hours each
This course is a continuation of Mu 1338, and the minimum representative requirements are these: Bach: Preludes and Fugues, Suites, Partitas, transcriptions; SONATAS: More difficult ones by Mozart, or Beethoven, or concerto; TECHNIC: scales and arpeggios in 10ths, 6ths, two against three or others of similar difficulty; Etudes of the difficulty of Chopin, Kramer, etc.; Czerny, Op. 740 or equivalent; standard literature from Romantic and Contemporary periods; everything from memory; sight reading; ensemble. Prerequisite: Mu 1338.

Mu 2237, 2238 Sophomore Piano
(0-1) ..... 2 hours each
This course is a continuation of Mu 1238, and the minimum representative requirements are these: Bach: four three-part Inventions or two Preludes and Fugues, or the equivalent; SONATAS: by Mozart, Haydn, Beethoven, or concerto; TECHNIC: all scales and arpeggios, four octaves, four notes to the beat, minimum speed MM. 120; Czerny, Op. 299 or equivalent; standard Etudes; standard literature from the Romantic and Contemporary periods; sight reading; ensemble. Prerequisite: Mu 1238.

Mu 1119, 1120 Applied Music
(0-½) ..... 1 hour each
This course is offered in any field of applied music on an elective basis to meet special student needs. It is designed to provide elective credit in the applied study of music, as well as in cases where performance ability is not sufficiently high to warrant credit at the college level in a specific field of performance. Prerequisite: None.

Mu 1137, 1138, 2137, 2138 Secondary Piano (0-½) ..... 1 hour each
This course is designed to complete the piano proficiency requirements for all music students except pianists, and the minimum representative requirements for the piano proficiency requirements are these: Bach Invention or equivalent; one Sonata-form movement; three memorized pages of standard Romantic or Contemporary compositions: "Star Spangled Banner" and "America" memorized; ability to play a hymn from a selected list; sight reading of 3rd grade difficulty; all scales and arpeggios, four octaves four notes to the beat, at least MM. 72; Czerny, Op. 299 or equivalent. Prerequisite for Mu 1137: None.

Mu 2339, 2340 Sophomore Organ
(0-1) ..... 3 hours each
This course is a continuation of Mu 1340, and the minimum representative requirements are these: Gleason, *Method of Organ Playing;* Bach, Trio

Sonatas, Little Fugue in G Minor, or equivalent; Mendelssohn Sonatas or equivalent; "Poemes Evangeliques" by Langlais; Vierne, *Twenty-four Pieces in Free Style;* Bach, *Orgelbuchlein;* everything from memory; introduction to Service Playing; additional technic as needed; public recital required. Prerequisite for Mu 2339: Mu 1340. Prerequisite for Mu 2340: Mu 2339.

Mu 2239, 2240 Sophomore Organ
(0-1) ..... 2 hours each
This course is a continuation of Mu 1240, and the minimum representative requirements are these: Gleason, *Method of Organ Playing;* Bach, *Orgelbuchlein,* Trio Sonatas, Little Fugue in G Minor, or equivalent; Mendelssohn Sonatas, or equivalent; "Poemes Evangeliques" by Langlais; Vierne, *Twenty-four Pieces in Free Style;* standard literature from Romantic and Contemporary periods; at least two compositions memorized; introduction to Service Playing; additional technic as needed. Prerequisite for Mu 2239: Mu 1240.

Mu 1139, 1140, 2139, 2140 Secondary Organ (0-½) ..... 1 hour each
This course is designed for the music major whose primary instrument is other than organ or for elective credit. Representative literature includes these: Gleason, *Method of Organ Playing;* Bach: "Eight Little Preludes and Fugues" and/or *Liturgical Year;* Dupre, *Seventy-nine Chorals;* and standard compositions, range of difficutly from easy arrangements and transcriptions upward, by Handel, Mendelssohn, Franck, Langlais, Peeters, etc. Additional technic is added as needed. Prerequisite for Mu 1139: None, but previous organ or piano study is desirable.

Mu 1141, 1142 Secondary Voice
(0-½) ..... 1 hour each
Secondary voice is designed for the non-vocal concentration or non-vocal major who is a music major or for elective credit. Rudimentary principles of vocal production and appropriate exercises are studied. A minimum of 6 memorized songs from the standard repertoire are to be prepared for presentation at faculty jury for grade. Prerequisite for Mu 1142: Mu 1141.

Mu 2141, 2142 Secondary Voice
(0-½) ..... 1 hour each
This course is a continuation of Mu 1142. Exercises and studies of increased difficulty and length are studied plus Italian songs. A minimum of 6 memorized songs from the standard repertoire are to be prepared for presentation at faculty jury for grade. Prerequisite: Mu 1142.

Mu 1241, 1242 Freshman Voice
(0-1) ..... 2 hours each
This course is designed for the music education major who will study voice as his primary instrument or for elective credit. Exercises to facilitate proper breath and tone production are studied to promote vocal technique. Songs from the early Italian literature are studied, plus appropriate English songs at the discretion of the instructor. A minimum of 7 memorized songs are to be prepared for presentation at faculty jury for grade. Prerequisite for Mu 1242: Mu 1241.

Mu 2241, 2242 Sophomore Voice
(0-1) ..... 2 hours each
This course is designed as a continuation of Mu 1242. Scales, arpeggios, and studies of increased variety, length, speed, and numbers of vowels are studied. German and French songs are introduced. Oratorio and/or opera arias may be given at the discretion of the instructor. A minimum of 7 memorized songs and/or arias are to be prepared for presentation at faculty jury for grades. Prerequisite for Mu 2241; Mu 1242.

Mu 1243, 1244 Freshman Violin
(0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is violin or for elective credit. The minimum representative requirements for this course are these: Kreutzer *Etudes;* Sevcik technical exercises; all major and minor scales and arpeggios, three octaves, memorized; one Sonata by a standard composer (Bach, Vivaldi, Viotti, Nardini, etc.); pieces of similar difficulty by classic and contemporary composers; Orchestra; ensemble. Prerequisite for Mu 1244; Mu 1243.

Mu 2243, 2244 Sophomore Violin
(0-1) ..... 2 hours each
This is a continuation of Mu 1244, and the minimum representative requirements include these: *Etudes,* Kreutzer, Fiorillo, Sevcik; scales and arpeggios; two Sonatas by a standard composer (Handel, Bach, Mozart, Beethoven, Gade, Grieg, etc.); one concerto by a standard composer (Bach, Kreutzer, Viotti, Rode, Vivaldi, Mozart, etc.); Orchestra; ensemble. Prerequisite: Mu 1244.

Mu 1245, 1246 Freshman Viola (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is viola or for elective credit, and the minimum representative requirements are these: scales and arpeggios; studies and exercises; sonatas and concertos; smaller pieces from the standard repertoire; Wolhfahrt-Isaac-Lewis, *Thirty Studies for the Viola, Book I;* Wolhfahrt, Book II; "Lyric Suite" by Grieg-Sitt. Prerequisite for Mu 1246: Mu 1245.

Mu 2245, 2246 Sophomore Viola (0-1)..... 2 hours each
This is a continuation of Mu 1246, and the minimum representative requirements include these; scales and arpeggios; scales in double stops; studies and exercises selected according to individual needs of the pupil, such as C. Danela's *L'ecole du mechanisme, Books I and II,* Dont's *20 Progressive Etudes,* and R. Kreutzer-Consolini's *42 Etudes;* sonatas of Leclair, Marcello, Corelli, G. Faure; concertos and short solo pieces. Prerequisite: Mu 1246.

Mu 1247, 1248 Freshman Violoncello (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary interest is in violoncello or for elective credit, and the minimum requirements for the course are these: Klengel studies; Dotzaur *113 Selected Studies, Book II;* Lee, *40 Melodic Studies, Book II;* Sonatas by Eccles, Breval; thumb position; scales of 3 octaves; studies equivalent in difficulty to Dotzaur, Volume II; shorter compositions equivalent in difficulty to Beethoven G Minor Sonata. Prerequisite for Mu 1248: Mu 1247.

Mu 2247, 2248 Sophomore Violoncello (0-1)..... 2 hours each
This is a continuation of Mu 1248, and the minimum representative requirements include these: scales and arpeggios; double stops; studies equivalent to Dotzaur, *Volume III,* and Grutzmacher, *Opus 67;* shorter compositions, and compositions equivalent in difficulty to the Sammartini G Major Sonatas. At the end of the second year the student must be able to play at sight moderately difficult ensemble music. Prerequisite: Mu 1248.

Mu 1249, 1250 Freshman Double Bass (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is double bass or for elective credit, and the minimum course requirements include these: scales and arpeggios; smaller pieces from the standard repertoire; orchestra studies; Franz Simandl, *Book I* and *Book II.* Prerequisite for Mu 1250: Mu 1249.

Mu 2249, 2250 Sophomore Double Bass (0-1)..... 2 hours each
This is a continuation of Mu 1250, and the minimum requirements include these: scales and arpeggios; scales of Shmuklousky; Harbe, *Etudes, Book I;* Franz Simandl, *Fundamental Method Book II;* Kreutzer bowing studies; shorter compositions and more advanced orchestra studies. Prerequisite: Mu 1250.

Mu 1251, 1252 Freshman Classical Guitar (0-1)..... 2 hours each
This is a course designed for the music education major whose primary instrument is classical guitar or for elective credit. Representative instructional materials include standard classical guitar literature from all periods of music, including transcriptions. Representative materials include: *Classical Guitar Method,* Mataeo Carcassi (Carl Fischer edition); *Guitar School, Vol. 1;* E. Pujol; *Diatonic Major and Minor Scales* (A. Segovia); the selection for any one semester is based on the student's need in relation to his previous study and current ability as determined by the teacher. Prerequisite: demonstrate knowledge of fingerboard; know diatonic major and minor scales. Terrega method is preferred. Prerequisite for Mu 1252: Mu 1251.

Mu 2251, 2252 Sophomore Classical Guitar (0-1)..... 2 hours each
This course is a continuation of Mu 1252. Representative instructional materials continue with standard literature from all periods of music, including these: transcriptions; Villa-Lobos *Etudes;* advanced technical studies; Albeniz "Leyenda" de la Maza, "Companatis del Alba" (Etude in Tremolo); compositions by Bach, Dowland, Llobet, Granadas, Rodrigo, Pence, Mudarra, Frescobaldi, Rameau, Torroba, Turina, etc. Prerequisite for Mu 2252: Mu 2251.

Mu 1253, 1254 Freshman Bassoon (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is bassoon or for elective credit. The minimum technical re-

quirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 80, in various articulations. Representative repertoire will be chosen from the complete works of Weissenborn *Op. 8,* the Jancourt *Studies,* and solos selected from Group I listing of the University Interscholastic League. Prerequisite for Mu 1254: Mu 1253.

Mu 2253, 2254 Sophomore Bassoon
(0-1) ..... 2 hours each
This course is a continuation of Mu 1254, and the minimum representative requirements are these: all scales to be played from memory in eighth notes at M.M. 160, in various articulations, all major scales in broken thirds to be played from memory in eighth notes at M.M. 100 in various articulations. Additional etudes and technical studies should include the Milde *Etudes, Volume I,* the Gambaro *Studies,* and such representative solos as the Vivaldi Concerto, the Weber Concerto, and the Hindemith Sonata. Prerequisite: Mu 1254.

Mu 1255, 1256 Freshman Flute
(0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary interest is flute or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 80, in various articulations. Representative repertoire to be chosen from the studies of Anderson, Cavally, Berbiguier, Koehler, and Boehm; and solos such as the Handel *Sonatas,* the Telemann *Suite,* and the Bach *Suite I.* Prerequisite for Mu 1256: Mu 1255.

Mu 2255, 2256 Sophomore Flute
(0-1) ..... 2 hours each
This course is a continuation of Mu 1256, and the minimum representative requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100 in various articulations. Additional etudes and technical studies should include Anderson *Op. 15* and *63,* and others equivalent to Cavally. Representative literature should include at least one Bach and one Handel Sonata. Prerequisite for Mu 2255: Mu 1256.

Mu 1257, 1258 Freshman Clarinet
(0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is clarinet or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations. Representative repertoire will be chosen from the Klose *Method,* the Lazarus *Method,* the Rose *32 Etudes,* the Rubank *Selected Studies,* and solos selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1258: Mu 1257.

Mu 2257, 2258 Sophomore Clarinet
(0-1) ..... 2 hours each
This course is a continuation of Mu 1258, and the minimum representative requirements are these: all scales to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations. Additional etudes and technical studies should include completion of the Klose *Method* or Lazarus *Method,* the Rose *40 Studies,* and such representative solos as the Brahms Sonatas, the Weber or Mozart concertos and some contemporary works. Prerequisite for Mu 2257: Mu 1258.

Mu 1259, 1260 Freshman Oboe
(0-1) ..... 2 hours each
This course is designed for the music major or minor whose primary instrument is oboe or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds played from memory in eighth notes at M.M. 80, in various articulations. Representative repertoire to be chosen from the Verroust *Studies,* the Rubank *Selected Studies* and the Barret *Progressive Exercises,* and solos such as the Handel Concertos and Sonatas, the Dittersdorf Concertos, and equivalent works. Prerequisite for Mu 1260: Mu 1259.

Mu 2259, 2260 Sophomore Oboe
(0-1) ..... 2 hours each
This course is a continuation of Mu 1260, and the minimum representative

requirements are these: all scales to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations. Additional etudes and technical studies should include the Barret *Grand Studies,* the Ferling *48 Etudes,* the Andraud *Vade Mecum* and the Sellner *Duets.* Representative literature should include at least two pre-classical sonatas and the orchestral solos for the oboe. Prerequisite for Mu 2259: Mu 1260.

Mu 1261, 1262 Freshman Saxophone (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is saxophone or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds are to be played from memory in eighth notes at M.M. 80, in various articulations. Additional technique will be taken from *Selected Studies* by Rubank, Pares *Scale Studies* and others. Solo literature will be selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1262: Mu 1261.

Mu 2261, 2262 Sophomore Saxophone (0-1)..... 2 hours each
This course is a continuation of Mu 1262, and the minimum representative requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds are to be played from memory in eighth notes at M.M. 100, various articulations. Additional etudes and technical studies should be equivalent to Ferling, *48 Etudes,* Klose-Derigny, *Complete Method,* and solos by Handel, Rascher, Creston, Ibert, and other contemporary French recital pieces. Prerequisite for Mu 2261: Mu 1262.

Mu 1263, 1264 Freshman French Horn (0-1)..... 2 hours each
This course is designed for the music education major or minor primary instrument is French horn or for elective credit. The minimum technical requirements are these: all scales to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 80, in various articulations. Additional technical studies will be taken from Alphonse, *Book I,* Pottag, *Preparatory Melodies;* and the Kopprasch, *Book I.* Representative solo literature will be selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1264: Mu 1263.

Mu 2263, 2264 Sophomore French Horn (0-1)..... 2 hours each
This course is a continuation of Mu 1264, and the minimum representative requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations. Continuation of technical studies will be taken from the Alphonse, Pottag, and studies from band and orchestra literature. Representative solos to be selected from the works of Gootwald, Painter, Mozart, Scarmolin, Wessel, Whittman, and various transcriptions for the horn. Prerequisite for Mu 2263: Mu 1264.

Mu 1265, 1266 Freshman Trombone or Baritone (0-1)..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is trombone or baritone or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 80, in various articulations. Representative repertoire is to be chosen from the studies of Mueller, Kopprasch, Manita, Rochut, and Arban. The solo literature will be selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1266: Mu 1265.

Mu 2265, 2266 Sophomore Trombone or Baritone (0-1)..... 2 hours each
This course is a continuation of Mu 1266, and the minimum representative requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations; continuation of the technical studies taken from Kopprasch, *Etudes;* Harvey, *Advanced Studies;* Rochut, *Etudes,* and Mueller, *Technical Studies.* Representative solos will be

taken from the works of Guilmant, Zimmerman, Pryor, Simmons, and transcriptions for the trombone or baritone. Prerequisite for Mu 2265: Mu 1266.

Mu 1267, 1268 Freshman Cornet or Trumpet (0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is cornet or trumpet or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations. Representative repertoire will include etudes and technical studies from Arban, and St. Jacome, the Hering *Thirty-two Etudes,* and the Clark *Technical Studies,* and solos selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1268: Mu 1267.

Mu 2267, 2268 Sophomore Cornet or Trumpet (0-1) ..... 2 hours each
This course is a continuation of Mu 1268, and the minimum representative requirements are these: all scales to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations. Additional etudes and technical studies should include St. Jacome, *Book II;* Sachse, 100 *Etudes;* Voxman, *Selected Studies;* and Williams, *Transposition Studies;* and representative solos such as those of Balay, Fitzgerald, Hindemith, and Busser. Prerequisite for Mu 2267: Mu 1268.

Mu 1269, 1270 Freshman Tuba (0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is tuba or for elective credit. The minimum technical requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 120, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 80, in various articulations. Additional technical studies will be taken from the Eby *Method for Tuba* and the Hering *Thirty-two Etudes.* Representative solo literature will be selected from the Group I listing of the University Interscholastic League. Prerequisite for Mu 1270: Mu 1269.

Mu 2269, 2270 Sophomore Tuba (0-1) ..... 2 hours each
This course is a continuation of Mu 1270, and the minimum representative requirements are these: all scales and arpeggios to be played from memory in eighth notes at M.M. 160, in various articulations; all major scales in broken thirds to be played from memory in eighth notes at M.M. 100, in various articulations. Additional technical studies will be taken from the Eby *Method for Tuba,* and the Rochut *Etudes, Volume I;* and special transposition studies will be undertaken. Representative solo literature will be selected from the original works for tuba and available transcriptions. Prerequisite for Mu 2269: Mu 1270.

Mu 1271, 1272 Freshman Percussion (0-1) ..... 2 hours each
This course is designed for the music education major or minor whose primary instrument is percussion or for elective credit. The minimum technical requirements are these: completion of the twenty-six rudiments through all the various dynamics on the snare drum; rudimental solos selected from the Burns-Moore *Art of Rudimental Drumming,* the N.A.R.D. Solo Book, the Gardner *Progressive Studies* and the Group I listing of the tympani using the Goodman *Modern Method for Timpani* for two tympani; and instruction in the correct method of playing the accessory instruments. Prerequisite for Mu 1272: Mu 1271.

Mu 2271, 2272 Sophomore Percussion (0-1) ..... 2 hours each
This course is a continuation of Mu 1272, and the minimum representative requirements are these: continued instruction on the tympani to include three and four kettles; additional technical studies to be taken from the Seitz *Modern School of Timpani Playing,* and the orchestral literature; advanced rudimental solos for the snare drum and multiple percussion solos including the playing of the trap set; beginning instructions of the mallet instruments to be taken from the Xylophone with appropriate solos to be chosen from the literature. Prerequisite for Mu 2271: Mu 1272.

Nursing

Faculty
Ann Winn, chairman; Dorothy Cook, Celia Harris, Betty Jackson, Marilyn Kelly, Rebecca Marcus, Eva Mauldin, Maxine Parks, Karen Paterno, Janet Phillips, Eileen Piwetz, Robbie Rogers, Jacqueline Salerno, Clara Usrey.

This nursing program is built on a career ladder concept and the curriculum is designed to allow the student maximum flexibility in education. A student has the option of progressing through the two levels of nursing after meeting requirements for each level. Level I prepares the Vocational Nurse who qualifies to write the licensing examination. Level II prepares the Associate Degree Nurse who qualifies to write the licensing examination for registered nurse. Successful completion of Level II also qualifies the student to receive the Associate in Applied Science Degree.

Requirements for admission to the nursing program are high school graduation or its equivalent, satisfactory achievement on pre-entrance examination, evaluation of reading and writing skills, evidence of good physical and emotional health, two satisfactory character references, and a completed application to the Nursing Department. Because of limited enrollment, students are urged to apply at least 6 months before the date of proposed admission.

For admission, applicants should apply to the college and to the chairman of the program. There is no discrimination due to sex, race, cultural background or ethnic origin. English language proficiency is essential.

The nursing program focuses on the common health problems in the United States and must be taken in the sequence listed. The student must satisfy the objectives for the respective level with a minimum grade of 70 or "C" in each required course. Clinical experience is a part of each course and includes medicine, surgery, obstetrics, pediatrics, and psychiatrics, as well as selected special services. Consideration is given to persons of all age groups and sociocultural backgrounds. Hospital experiences are scheduled during day and evening hours.

Classes are admitted in the Fall and Spring Semesters. Each nursing student must be covered by health and accident insurance and student liability insurance. Students are responsible for their own transportation to the clinical facilities.

The Nursing Program at Odessa College is accredited by the National League for Nursing, the State Board of Nurse Examiners for Texas and the Board of Vocational Nurse Examiners. The curriculum plan is approved by the Texas Education Agency.

Course of Study for Nursing (All Levels)

Level I*

First Year

First Semester

Course	Sem. Hrs.
Biol 1301	3
Nu 1201	2
Nu 1801	8
Nu 1301	3
Psy 1201	2

Second Semester

Course	Sem. Hrs.
Biol 1302	3
Nu 1002	10
Nu 1302	3

Third Semester
(If summer session, lasts 12 weeks)

Course	Sem. Hrs.
Nu 1503	5
Nu 1303	3

Level II**
Second Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 2403	4	Psy 2302	3
Eng 1311	3	Soc 1301	3
Psy 1301	3	Govt/Hist	3
PE	1	PE	1
Nu 2701	7	Nu 2702	7

Midwinter Session

Course	Sem. Hrs.
Eng 1312	3

(H.Ed. 1301 may be substituted for the two 1-hour PE courses.)
*Students successfully completing Level I are eligible to write the State Board Examinations for licenses as a Vocational Nurse.
**Students successfully completing Level II are eligible to write the State Board Examination for licensure as a Registered Nurse.

Nu 1002 Care of Patients with Unstable Health Conditions I (10-0) ..... 10 hours
This course provides learning experiences to develop practical abilities required for assessing, identifying, and meeting the nursing requirements of hospitalized patients with medical/surgical conditions. Also special skills required for meeting the basic needs of maternity patients during pregnancy, labor and delivery, and care of the newborn are presented. Theory includes development of nursing skills in caring for patients in all age groups including pediatric and geriatric patients. Prerequisites: Nu 1801, Nu 1301, Nu 1201, Biol 1301. Corequisites: Nu 1302 and Biol 1302.

Nu 1201 Pharmacology (2-0) ..... 1 hour
This course prepares the student to recognize selected drug classifications and their actions, to identify common drugs within each classification, and some important implications for their administration. Corequisites: Biol 1301, Nu 1801, and Nu 1301.

Nu 1301 Basic Nursing Practicum (0-19) ..... 3 hours
The clinical component of Nu 1801, experiences in hospitals and geriatric facilities at the bedside are closely correlated with classroom instruction and provide an opportunity for the student to practice skills under supervision of an instructor. The student will plan and guide actions in assisting and supporting patients of all ages and varied cultural backgrounds to meet their individual needs. Corequisites: Biol 1301, Nu 1801, and Nu 1201.

Nu 1302 Clinical Practicum (0-21) ..... 3 hours
This course provides laboratory experiences in acute care settings to develop intermediate and advanced nursing skills in caring for patients of varied ages and cultural backgrounds with unstable health conditions; i.e., medical-surgical, pediatric, and obstetrical nursing. Prerequisites: Biol 1301, Nu 1201, Nu 1801, and Nu 1301. Corequisites: Bil 1302 and Nu 1002.

Nu 1303 Clinical Practicum (0-30) ..... 3 hours
This course provides laboratory experiences in the hospital setting and opportunities for the student to use course theory in care of hospitalized medical-surgical patients of varied age and cultural backgrounds. Prerequisites: Biol 1302, Nu 1002, and Nu 1302. Corequisites: Nu 1503, and Psy 1201.

Nu 1503 Care of Patients with Unstable Health Conditions II (5-0) ..... 5 hours
Theory includes applications of scientific principles and practice using the nursing process for total nursing care of patients with unstable medical and/or surgical problems. This course assists the student in preparing for the role of the vocational nurse. Prerequisites: Biol 1302, Nu 1002, and Nu 1302. Corequisite: Nu 1303, Psy 1201.

Nu 1801 Basic Nursing (7-3)..... 8 hours
This theory course prepares the student to perform selected basic nursing procedures for patients with self-care limitations and stable health deviations. Communication, skills, and medical terminology are an integral part of this course, as are legal and ethical responsibilities. There will be an introduction to observing, recording, and reporting; the process of beginning problem solving; medical asepsis; nutrition and fluids; administration of medications; growth and development; and maternal health. Corequisites: Biol 1301, Nu 1301, and Nu 1201.

Nu 2701 Nursing Care of Patients with Critical Health Deviations (4-12)..... 7 hours
The student's goal is to apply, review, and bring together previous knowledge in caring for more acutely ill patients in the hospital environment. The student will be expected to recognize all aspects of a patient's problem (e.g., human needs in the fact of crisis, regulatory and body systems problems). Operating room nursing is included. Care is planned and given in critical care units. Prequisites: Nu 1503 and Nu 1303. Corequisite: Biol 2403.

Nu 2702 Complex Health and Nursing Problems (3-16)..... 7 hours
Theoretically the student encounters patients with overt psychiataric illnesses and complications of the maternity cycle, as well as other health agencies concerned with care of various age and cultural groups. The student also learns legal-ethical aspects of professional nursing, assigning priorities in administering care, methods of health team communication, supervising activities of others, and transcribing doctors' orders. The clinical aspect of this course implements the theoretical content. Prerequisites: Nu 2701, Biol 2403.

Office Education

Faculty
Billie Duncan, chairman; Rita Hurst, Kay Rutherford, Margaret Jo Saunders, Nancy Sturges.

The Office Education program is a personalized instructional system designed to offer the student intensified individualized study.

A student may begin the program at the start of regular semesters or on any quarter date. (Quarter dates for Office Education are listed in the current class schedule.)

Students have the option of completing intensified Core Course programs in Office Careers or in Secretarial Careers. These intensified programs can be completed in nine months if started in a fall semester. A Certificate of Technology program may be completed in 16 weeks. Students will attend class for five consecutive hours between 8 a.m. and 3 p.m., Mondays through Fridays during the fall and spring semesters.

Students wishing to take a less intensified program and/or individual courses, may take any course offered. These classes are offered between 8 a.m. and 3 p.m. Mondays through Fridays; and 6 p.m. until 9 p.m. Mondays through Thursdays during fall and spring terms.

The summer instructional schedule is Mondays through Thursdays.

All students will be advised on their individual program course sequence based on their present skills level and desired goals. Individual advisement will be in Room 227 of the Instructional Building and registration will be through the regular college procedure.

Texas Education Agency Approval Pending

Course of Study for Associate in Applied Science Degree in Office Careers

Office Career Core Course

Semester Length Courses:	Sem. Hrs.	Semester Length Courses:	Sem. Hrs.
OE 1401 0r 1402	4	OE 1402 or 1403	4
OE 1404	4		

Eight-Week Courses:	Sem. Hrs.	Eight-Week Courses:	Sem. Hrs.
OE 1201	2	OE 1206	2
OE 1202	2	OE 1207	2
OE 1203	2	OE 1208	2
OE 1204	2	OE 1301	3
OE 1205	2	OE 1302	3
		*Approved electives	4

*Approved Electives: OE 2401, 2403, or 2404

(After completion of the core program the following general courses will be required to complete the Applied Science Degree:)

General Course Requirements

Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311 and Spch 2340	6	Science	4
Govt 2302	3	BA 1301	3
Psy 1201	2	Eco 1301	3
PE	2	EDP 2301	3
Math 1301	3		

Course of Study for Associate in Applied Science Degree in Secretarial Careers

Secretarial Careers Core Courses

Semester Length Course:	Sem. Hrs.	Semester Length Courses:	Sem. Hrs.
OE 1401 or 1402	4	OE 1402 or 1403	4
OE 2401 or 2402	4	OE 2402 or 2403	4
OE 1404	4		

Eight Week Course:	Sem. Hrs.	Eight Week Course:	Sem. Hrs.
OE 1201	2	OE 1206	2
OE 1202	2	OE 1208	2
OE 1203	2	OE 1301	3
OE 1204	2	OE 1302	3
OE 1205	2		

(After completion of the core program, the following courses will be required to complete the Applied Science Degree:)

General Course Requirements

Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311 and Spch 2340	6	EDP 2301	3
Govt 2302	3	BA 1301	3
Psy 1201	2	Recommended but not required	
PE	2	for degree:	
Math 1301	3	BA 2311	3
Science	4	Eco 1301	3

Students will be placed in typewriting based on the proficiency level attained in high school courses and/or demonstrated by placement tests.
Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of 18 semester hours of office education courses prescribed by the department chairman.

OE 1201 Business Math I (3-2)
(8 Weeks)..... 2 hours
This course develops skill and accuracy in fundamental problems of business mathematics. It also applies basic skills to actual business situations. Prerequisite: None.

OE 1202 Business Math II (3-2)
(8 Weeks)..... 3 hours
This course provides an intensive review of fundamental mathematical operations: addition, subtraction, multiplication, division, fractions, decimals, and percentage. Computational skills relating to interest, discount, payroll, depreciation, expense accounts, retail selling, etc., are stressed. Shortcut methods and the ability to work with speed and accuracy are developed. Prerequisite: OE 1201.

OE 1203 Filing (1-4)
(8 Weeks)..... 2 hours
This course aids the student to develop an understanding of the necessity for orderly record keeping. Students will acquire a working knowledge of rules and principles of alpha-numeric and geographic systems.

OE 1204 Office Practice (1-4)
(8 Weeks)..... 2 hours
This course introduces the student to the study of modern office practices which affect office workers. It gives an overview of procedures necessary in office work: the importance of good human relations, management of financial records, necessity for proofreading, and acquaintance with secretarial reference materials. Prerequisite: OE 1401.

OE 1205 Business Correspondence (1-4)
(8 Weeks)..... 2 hours
This course develops skill in writing letters of request, response, sales, and collection. Further skills are developed in writing follow-up letters, brief reports, and in filling out applications. Prerequisite: OE 1206 and OE 1401.

OE 1206 Business English (3-2)
(8 Weeks)..... 2 hours
This course gives the student basic skills in English grammar, punctuation and style.

OE 1207 Office Machines I (1-4)
(8 Weeks)..... 2 hours
This course teaches the touch method of operating ten-key machines and electronic display calculators. The course also provides practice in the use of machines for mathematical problem solving. Prerequisite: None.

OE 1208 Office Machines II (1-4)
(8 Weeks)..... 2 hours
This course teaches the touch method of operating the electronic printing calculator. Mathematical problem application and practice are stressed. Prerequisite: None.

OE 1209 Clerical Record Keeping (1-4)
(8 Weeks)..... 2 hours
This course provides individual, office job-training sequences for selected entry-level jobs in record keeping. Students select individual training programs and must complete a required number of them in order to gain a wide range of clerical skills. Prerequisite: None.

OE 1210 Typewriting Skills for Non-Majors (1-4) (16 Weeks)..... 2 hours
This course is offered for the students in non-business programs. The purpose of the course is to teach touch method of typewriting to accommodate the student in both personal and vocational typing. It does not stress production speed. Prerequisite: None.

OE 1301 Machine Transcription (2-4)
(8 Weeks)..... 3 hours
This course is designed to help the student use transcription equipment efficiently. The student also will learn techniques and procedures for using correct punctuation and correct letter and report forms. The main purpose of this course is to develop the transcribing art. Prerequisite: OE 1401.

OE 1302 Office Simulation (2-4)
(8 Weeks)..... 3 hours
This course focuses on the application of business and human relations skills in a simulated office environment. Skills are developed, applied and integrated in actual job training. Emphasis is on initiative, interaction, follow-through, and flow of work. Prerequisites: OE 1204, OE 1401.

OE 1401 Beginning Typewriting (1-5)
(16 Weeks)..... 4 hours
This course develops touch-method skills in the alphabetical keyboard, which also includes numbers, symbols, and service mechanisms. Also included is an introduction to the proper form for business letters, transcripts, and reports—as well as tabulations and displays. Prerequisite: None.

OE 1402 Intermediate Typewriting (1-5)
(16 Weeks)..... 4 hours
This course is designed for those students who have had typewriting in high school or who have had beginning

typewriting. Practice includes composing business letters, typing business letters, tabulating materials, and typing manuscripts. Prerequisite: OE 1401.

OE 1403 Advanced Typewriting (1-5) (16 Weeks) ..... 4 hours
This course is designed for students who wish to increase their typewriting speed and their knowledge of business forms. It includes practice in typing legal documents, rough drafts, payrolls, invoices, business letters, telegrams, envelope addresses, manuscript work, and stencil cutting. Prerequisite: OE 1402.

OE 1404 Office Bookkeeping (1-5) (16 Weeks) ..... 4 hours
This course prepares the student to perform elementary bookkeeping skills in the accounting cycle: journalizing, posting, preparing a trial balance, and completing income statements and balance sheets for small business firms. Prerequisite: None.

OE 2401 Beginning Shorthand (1-5) (16 Weeks) ..... 4 hours
This is a complete course in ABC or Gregg shorthand. Theory, dictation, and transcription are presented. Special attention is given to correct formation of shorthand symbols and brief forms. Correct phrasing, reading, writing, and transcribing of shorthand characters are practiced extensively. Prerequisite: None.

OE 2402 Intermediate Shorthand (1-5) (16 Weeks) ..... 4 hours
A complete course in ABC or Gregg shorthand theory, dictation, and transcription is offered. Emphasis is placed on speed building and transcribing accurately written shorthand notes. Prerequisite: OE 2401, OE 1401.

OE 2403 Office Style Dictation & Skill Building (1-5) (16 Weeks) ..... 4 hours
The purpose of this course is to increase speed and accuracy in taking dictation, in transcribing, and in typewriting. Prerequisite: OE 2401 or OE 2402.

OE 2404 Elementary Machine Shorthand (1-5) (16 Weeks) ..... 4 hours
This course includes mastery of the stenographic keyboard by the touch system. Training on the keyboard will include phonetic applications, principles and rules of machine shorthand, prefix and suffix formations, number practice, punctuation accuracy drills, and note phrase reading mastery. Prerequisite: OE 1401.

OE 2405 Intermediate Machine Shorthand (1-5) (16 Weeks) ..... 4 hours
This course includes a review of basic theory of shorthand; development of automatic recall of brief forms, derivatives, and phrasing principles; development of speed and accuracy through drills and rests; and drill on intermediate phonetic patterns, reading practice, and simple reversal forms. Prerequisite: OE 2404, OE 1401.

Operating Room (Surgical) Technology

Faculty
Val Jumper, chairman.

This program prepares graduates to function in the operating room as surgical technicians under the direction of an operating room registered nurse. The duties include maintaining a safe environment for patients undergoing surgery, transporting patients, preparing supplies, operating equipment, handling instruments, and serving as a member of the surgical team.

The first semester is devoted to medical terminology, microbiology, and the didactic phase of instruction with an introduction to clinical experience. During the second semester, anatomy and physiology is introduced and the practicum is greatly expanded to give the student skills in general surgery.

The six week summer session allows the student to perfect skills under supervision and provides for rotation through the common specialities. Upon graduation a certificate of completion is awarded.

Admission requirements to the program include high school graduation or G.E.D. certificate, good mental and physical health, manual dexterity, satisfactory score on pre-entrance examination, two personal references, and approval of the program director. Previous hospital experience is desirable, but not required.

Total length of the program is two semesters and one summer session. Students will be on a regular college schedule and eligible to participate in all college activities.

Applications for the fall and spring semesters must be made in advance. The number of students is limited, and those who apply early will be considered first.

Course of Study for Certificate

First Semester

Course	Sem. Hrs.
Biol 1100	1
ORT 1401	4
ORT 1411	4
Psy 1201	2
Biol 1400	4

Second Semester

Course	Sem. Hrs.
Biol 1403	4
ORT 1302	3
ORT 1602	6
H.ED 1301	3

Summer Session
(First Six Weeks)

Course	Sem. Hrs.
ORT 1503	5

1302 Principles of Operating Room Technology (3-0) ..... 3 hours
In-depth study of operating room techniques, surgical procedures, record keeping, and the responsibilities of the operating room technician.

1401 Introduction to Operating Room Techniques (4-0) ..... 4 hours
An introduction to the career of operating room technician, including terminology, weights and measures, medical-legal aspects, ethics, and hospital and operating room environment.

1411 Operating Room Technology Practicum (0-12) ..... 4 hours
Beginning skills in maintaining safe environment, patient safety, transportation of patients, care of instruments, aseptic technique, and related nursing procedures.

1602 Operating Room Technology Practicum II (0-18) ..... 6 hours
Assignments in surgery for experience in all the commonly done procedures, with opportunity to develop confidence as knowledge progresses.

1503 Operating Room Technology Practicum III (0-40) ..... 5 hours
Extended clinical experience with rotation through the surgical specialties.

Physical Education

Faculty
L. E. McColloch, chairman; Susie Girard, Pat Hodges, Betty Hudson, Bill Lawrence, Ron Mayberry, John Pellikan, Barry Rodenhaver, James Segrest, Ed Sunderland.

Physical education is the sum of all those changes that take place in individuals as a result of movement experience.

The principle objectives of this department are: (1) to develop the student's neuromuscular skill and organic system through movement experiences, (2) to increase the student's knowledge, insight, understanding and interest in movement experiences and finally, (3) to improve the student's recreational and leisure time skills as well as his standards of behavior in these selected movement areas.

Since movement is the medium through which this department achieves its objectives, the student has several opportunities to select those movement experiences (from 25 different areas in the physical education curriculum) which will best contribute to his well-being, his leisure time skills, and to his total educational development.

Course of Study for Associate in Science Degree
First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1401	4	Biol 1402	4
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Math 1313 or More Advanced	3	Math 1313 or More Advanced	3
Psy 1201	2	*PE (Activity)	1
*PE (Activity)	1	**Elective	3
PE 1301	3		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1403	4	Engl (Sophomore Level)	3
Engl (Sophomore Level)	3	Govt 2302	3
Govt 2301	3	Elective	3
*PE (Activity)	1	*PE (Activity)	1
H.ED 1301	3	**Elective	3
**Elective	3	**Elective	3

*Students majoring in Physical Education in preparation for a teaching career are required to take four semesters of activity classes in the following areas:

1 class of gymnastics or tumbling
1 class of team activity
1 class of individual activity
1 class of dance activity

Athletics are not to be counted as part of the 4 activity classes for PE majors.

**Electives are to be selected from the following 3-hour classes based on senior institution requirements:

PE 1302, PE 2301, PE 2302, PE 2303, PE 2304,
PSY 1301, Soc 1301, Spch 1310, H.Ed. 1301, H.Ed. 2301.

It is also recommended that physical education majors take more than the minimum of four one-hour activity classes in their preparation for a teaching career. Major students should also consider the requirements of the senior college to which they intend to transfer and plan their junior college scholastic schedule accordingly.

PE 1101 Aerobics, beginning (0-3) ... 1 hour
PE 1102 Aerobics, advanced (0-3) ... 1 hour
PE 1104 Archery, beginning (0-3) .... 1 hour
PE 1105 Archery, advanced (0-3) .... 1 hour
PE 1107 Badminton, beginning (0-3) . 1 hour
PE 1108 Badminton, advanced (0-3) . 1 hour
PE 1110 Basketball, Men, beginning (0-3) ..... 1 hour
PE 1111 Basketball, Men, advanced (0-3) ..... 1 hour
PE 1113 Basketball, Women, beginning (0-3) ..... 1 hour
PE 1114 Basketball, Women, advanced (0-3) ..... 1 hour
PE 1115 Bowling, beginning (0-3) .... 1 hour
PE 1116 Bowling, advanced (0-3) .... 1 hour
PE 1117 Camping, beginning (0-3) ... 1 hour
PE 1118 Camping, advanced (0-3) ... 1 hour
PE 1119 Defensive Tactics (0-3) ..... 1 hour
PE 1120 Fencing, beginning (0-3) .... 1 hour
PE 1121 Fencing, advanced (0-3) .... 1 hour
PE 1123 Folk Dance (0-3) ..... 1 hour
PE 1124 Football-touch, beginning (0-3) ..... 1 hour
PE 1125 Football-touch, advanced (0-3) ..... 1 hour
PE 1127 Foreign Dance, beginning (0-3) ..... 1 hour
PE 1128 Foreign Dance, advanced (0-3) ..... 1 hour
PE 1130 Golf, beginning (0-3) ..... 1 hour
PE 1131 Golf, advanced (0-3) ..... 1 hour
PE 1133 Gymnastics, beginning (0-3) ..... 1 hour
PE 1134 Gymnastics, intermediate (0-3) ..... 1 hour
PE 1135 Gymnastics, advanced (0-3) ..... 1 hour
PE 1137 Handball, beginning (0-3) ... 1 hour
PE 1138 Handball, advanced (0-3) ... 1 hour
PE 1140 Judo and Karate, beginning (0-3) ..... 1 hour
PE 1141 Judo and Karate, intermediate (0-3) ..... 1 hour
PE 1142 Judo and Karate, advanced (0-3) ..... 1 hour
PE 1143 Modern Dance, beginning (0-3) ..... 1 hour
PE 1144 Modern Dance, intermediate (0-3) ..... 1 hour
PE 1145 Modern Dance, advanced (0-3) ..... 1 hour
PE 1146 Modern Dance: Theatre Dance Form (0-3) ..... 1 hour
PE 1147 Modern Dance: Theatre Dance Form (0-3) ..... 1 hour
PE 2148 Modern Dance: Theatre Dance Form (0-3) ..... 1 hour
PE 2149 Modern Dance: Theatre Dance Form (0-3) ..... 1 hour
PE 1149 Physical Conditioning (0-3) . 1 hour
PE 1150 Physical Conditioning (0-3) 1 hour
PE 1151 Physical Conditioning (0-3) . 1 hour
PE 1153 Racquetball, beginning (0-3) 1 hour
PE 1154 Racquetball, advanced (0-3) 1 hour
PE 1156 Recreational Sports, beginning (0-3) ..... 1 hour
PE 1157 Recreational Sports, advanced (0-3) ..... 1 hour
PE 1159 Red Cross Life Saving (0-3) . 1 hour
PE 1160 Social Dance, beginning (0-3) ..... 1 hour
PE 1161 Social Dance, intermediate (0-3) ..... 1 hour
PE 1162 Social Dance, advanced (0-3) ..... 1 hour
PE 1163 Softball, beginning (0-3) .... 1 hour
PE 1164 Softball, advanced (0-3) .... 1 hour
PE 1166 Swimming and Diving, beginning (0-3) ..... 1 hour
PE 1167 Swimming and Diving, intermediate (0-3) ..... 1 hour
PE 1168 Swimming and Diving, advanced (0-3) ..... 1 hour
PE 1169 Tap Dancing, beginning (0-3) ..... 1 hour
PE 1170 Tap Dancing, advanced (0-3) ..... 1 hour
PE 1171 Tennis, beginning (0-3) ..... 1 hour
PE 1172 Tennis, intermediate (0-3) .. 1 hour
PE 1173 Tennis, advanced (0-3) ..... 1 hour
PE 1174 Trampoline, beginning (0-3) . 1 hour
PE 1175 Trampoline, advanced (0-3) . 1 hour
PE 1176 Volleyball, beginning (0-3) .. 1 hour
PE 1177 Volleyball, advanced (0-3) .. 1 hour
PE 1178 Skiing, beginning (0-3) ..... 1 hour
PE 1179 Skiing, intermediate (0-3) ... 1 hour
PE 1180 Skiing, advanced (0-3) ..... 1 hour
PE 1181 Basketball, varsity (0-3) ..... 1 hour
PE 1182 Basketball, varsity (0-3) ..... 1 hour
PE 2181 Basketball, variety (0-3) ..... 1 hour
PE 2182 Basketball, variety (0-3) ..... 1 hour
PE 1183 Golf, varsity (0-3) ..... 1 hour
PE 1184 Golf, varsity (0-3) ..... 1 hour
PE 1184 Golf, varsity (0-3) ..... 1 hour
PE 2183 Golf, varsity (0-3) ..... 1 hour
PE 2184 Golf, varsity (0-3) ..... 1 hour
PE 1185 Gymnastics, varsity (0-3) ... 1 hour
PE 1186 Gymnastics, varsity (0-3) ... 1 hour
PE 2185 Gymnastics, varsity (0-3) ... 1 hour

PE 2186 Gymnastics, varsity (0-3) ... 1 hour
PE 1189 Tennis, varsity (0-3) ..... 1 hour
PE 1190 Tennis, varsity (0-3) ..... 1 hour
PE 2189 Tennis, varsity (0-3) ..... 1 hour
PE 2190 Tennis, varsity (0-3) ..... 1 hour
PE 1191 Track and Field (0-3) ..... 1 hour
PE 1192 Track and Field (0-3) ..... 1 hour
PE 2191 Track and Field (0-3) ..... 1 hour
PE 2191 Track and Field (0-3) ..... 1 hour

PE 1301 Orientation in Health, Physical Education and Recreation (0-3) ..... 3 hours
This course is a study of the aims, objectives, curriculum and the philosophical and historical orientation of physical education, health education, and recreation. The acquisition of motor skills, the relationship of education principles of practice, and the psychological, sociological, and biological aspects are also studied. Prerequisite: None.

PE 1302 Camping and Outdoor Education (2-2) ..... 3 hours
This course will cover the general aspects of camping and survival in the wilderness. Topics will include camp crafts, ecology, campsite preparation, back-packing, edible plants, compass orientation, and map reading. The course will include a special project and outdoor laboratory experience. Camping fee charged. Prerequisite: None.

PE 1303 Movement and Recreation (2-1) ..... 3 hours
This course consists of recreational activity training in basic movement skills, movement exploration, apparatus work, manipulative activities, rhythmic activities, basic stunts and tumbling, perceptualmotor experiences and simple games applied to children on the lab site. Prerequisite: None.

PE 2301 The Techniques of Officiating Sports, Part I (2-2) ..... 3 hours
This course is a study of the effective officiating methods and techniques for basketball, volleyball, and track. The areas of study include the following: protest, forfeits, injuries, mechanics, rules, postponements, tournaments, and officials associations. Gymnastics would include individual scoring, value parts, dual meets, team sizes, and equipment requirements. Prerequisite: Consent of the instructor.

PE 2302 The Techniques of Officiating Sports, Part II (2-2) ..... 3 hours
This course is a study of the effective officiating methods and techniques for gymnastics, tennis, and golf. The areas of study include the following: protest, forfeits, injuries, rainy day scheduling, postponements, rules, mechanics, tournaments, and officials associations. Prerequisite: consent of instructor.

PE 2303 The Techniques of Coaching Sports, Part I (2-2) ..... 3 hours
This class is a study of the fundamental skills, individual and team play, organization of practices, and handling of teams during the competitive season of basketball, volleyball, and track. Prerequisite: consent of instructor.

PE 2304 The Techniques of Coaching Sports, Part II (2-2) ..... 3 hours
This class is a study of the fundamental skill, individual and team play, organization of practices, and handling of teams during the competitive season for gymnastics, golf, and tennis. Prerequisite: consent of instructor.

Health Education

H.ED 1301 First Aid (3-0) ..... 3 hours
This course consists of Multi-Media, CPR, and Standard American Red Cross First Aid. It covers such areas as transportation of the injured, bandaging, and prevention of injuries. Prerequisite: None.

H.ED 2301 Personal and Community Health (3-0) ..... 3 hours
This is a course for Physical Education majors which presents a study of body organs and systems, individual health problems, health concepts, public health organizations, and social problem and services. Prerequisite: None.

Physics

Faculty
Rayford Ball, chairman; Dr. Ashok Khosla.

The Department of Physics has as its principal objective the training of physicists at the junior college level. In addition, it seeks to provide for certain other majors the foundation in the fundamental physical principles which are necessary for effective work in engineering, medicine, dentistry, chemistry, and technology.

Course of Study for Associate in Science Degree

First Year

First Semester

Course	Sem. Hrs.
EDP 2406	4
Engl 1311	3
Hist 2301	3
Lang 1411	4
*Math 2331	3
Psy 1201	2
PE	1

Second Semester

Course	Sem. Hrs.
Engl 1312	3
Hist 2302	3
Lang 1412	4
Math 2333	3
PE	1
Phys 1403	4

Seond Year

Third Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Govt 2301	3
Lang 2311	3
Math 2335	3
PE	1
Phys 2401	4

Fourth Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Govt 2302	3
Lang 2312	3
Math 2351	3
PE	1
Phys 2402	4

*Prerequisite to Math 2331 should be taken during the summer prior to freshman enrollment. Students with strong mathematics background should consider advanced standing examinations.

Phys 1301 Music Acoustics (3-0) ..... 3 hours
This course is a study of sound as related to speaking, singing, and to playing musical instruments. It includes physical principles of sound production, transmission, interference, hearing, resonance, pitch, quality, musical intervals, stringed instruments, wind instruments, acoustics of rooms, and associated electronic equipment. Prerequisite: None.

Phys 1401 College Physics I (3-3) ..... 4 hours
This course is a study of classical mechanics, molecular physics and heat with application. It is for students of medicine, dentistry, veterinary medicine, optometry, biology, and architecture. A knowledge of elementary algebra and trigonometry is needed. Prerequisite: None.

Phys 1402 College Physics II (3-3) ..... 4 hours
This course is a study of classical electricity, magnetism, mechanical wave motion, optics, and practical aspects of modern physics. Prerequisite: Phys 1401.

Phys 1403 Engineering Physics I (3-3) ..... 4 hours
This course is a study of classical mechanics and thermo-dynamics for the student who aspires to professional academic degrees in the fields of physical science, the various engineering specialities, and mathematics. Prerequisite or corequisite: Math 2331.

Phys 2401 Engineering Physics II (3-3) ..... 4 hours
This course is a study of classical electricity and magnetism from a theoretical and engineering application viewpoint. Prerequisite: Physics 1403. Pre-

requisite or corequisite: Math 2333.

Phys 2402 Engineering Physics III (3-3) ..... 4 hours
This course is a study of mechanical and electromagnetic wave motion from the classical viewpoint and a semi-quantitative study of modern physics. Engineering application of these subjects are stressed. Prerequisite: Phys 2401.

Psychology, Sociology and Education

Faculty
Gordon Gillette, chairman; Mary Barker, Georgann Wemple.

This department furnishes the foundation courses for those students preparing for elementary and secondary school teaching as well as those planning to major in psychology or sociology. The subjects offered are often taken by students because of their general social and cultural value.

Both Psychology and Sociology majors should plan their programs with the assistance of a counselor. Psychologists and sociologists are most frequently hired as college teachers and researchers. Applied fields for either include the following: counselors, personnel workers, ministers, social case workers, group workers, community organizers, labor-management mediators, medical social workers, etc.

The State of Texas sets the requirements for certification of public school teachers. Prospective teachers should keep in mind that they must complete a teacher training program as outlined by their selected senior college.

Therefore, students should plan their work at Odessa College so as to take those courses which the senior college requires at the freshman and sophomore levels.

The instructional aide program is designed to develop educational concepts and theories needed to assist teachers. Pre-service and in-service aides receive instruction and theory in order that they might better understand their role in the classroom.

Course of Study for Associate in Arts Degree in Psychology

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Math 1341	3	PE	1
Psy 1201	2	Soc 1301	3
PE	1	**Soc 2304	3
Pys 1301	3	Math 1361	3

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1401, Chem 1301 and 1101 or Phys 1401	4	Biol 1402, Chem 1302 and 1102, or Phys 1402	4
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Govt 2301	3	Govt 2302	3
Phil 2301	3	PE	1
PE	1	*Elective	3
Psy 2303	3	Psy 2302	3

*Approved electives: Soc 2301; Eco 2301; Math 1343; Psy 2301.
**Planned to be offered in spring semester of even numbered years.

Course of Study for Associate in Arts Degree in Sociology

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Math 1341	3	PE	1
Psy 1201	2	Psy 1301	3
PE	1	**Soc 2304	3
Soc 1301	3	Math 1361	3
*Approved Elective	3		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1401, Chem 1301 and 1101, or Phys 1401	4	Biol 1402, Chem 1302 and 1102, or Phys 1402	4
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Govt 2301	3	Govt 2302	3
*Approved Elective	3	PE	1
PE	1	*Approved Elective	3
Soc 2303	3		

*Approved Electives: Phil 2301; Soc 2301; Soc 1302; Soc 2302; Eco 2301; Psy 2302.
**Planned to be offered in spring semester of even numbered years.

Course of Study for Associate in Arts Degree in Elementary Education

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1401	4	Biol 1402	4
Engl 1311	3	Engl 1312	3
Hist 2301	3	Hist 2302	3
Math 1341 or 2311	3	Math 1343 or 2313	3
Psy 1201	2	PE	1
PE	1	Psy 1301	3
Spch 1310	3		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
Geog 2301	3	Geog 2302	3
Govt 2301	3	Govt 2302	3
PE	1	Mu 1328 or Dr 2350	3
Physical Science (Chem 1301 & 1101, Ea Sc 1401 or Geol 1401	4	PE	1
		Psy 2302	3

Course of Study for Associate in Arts Degree in Secondary Education

First Year

First Semester

Course	Sem. Hrs.
Biol 1401	4
Engl 1311	3
Hist 2301	3
Math 1341 or 2311	3
Psy 1201	2
PE	1
Spch 1310	3

Second Semester

Course	Sem. Hrs.
Biol 1402	4
Engl 1312	3
Hist 2302	3
Math 1343 or 2313	3
PE	1
Psy 1301	3

Second Year

Third Semester

Course	Sem. Hrs.
Art 1300	3
Engl (Sophomore Level)	3
Govt 2301	3
PE	1
Phil 2302	3
Physical Science (Chem 1301 & 1101, Ea Sc 1401, Geol 1401 or Phys 1401	4

Fourth Semester

Course	Sem. Hrs.
Engl (Sophomore Level)	3
Govt 2302	3
Mu 1328	3
PE	1
Psy 2302	3
Soc 1301	3

Psy 1301 Introduction to Psychology (3-0) ..... 3 hours
Basic problems and principles of experience and behavior are studied. Included topics are heredity and environment, growth and development, learning and conditioning, remembering and forgetting, emotions, motivation, perception, psychological testing, personality, adjustment, normal and abnormal behavior, and therapies. Prerequisite: None.

Psy 2301 Personal Applications of Psychology (3-0) ..... 3 hours
This course emphasizes a study of the psychological principles and methods which are most important in the practical control of human behavior. Applications of psychology for increasing human efficiency, improving personalities, and harnessing the emotions are studied. Prerequisite: Psy 1301.

Psy 2302 Child Psychology (3-3) ... 3 hours
Emphasis is placed upon the development processes, including biological and environmental factors which shape the personality and affect the achievement of the child from pre-natal through pre-adolescence. Laboratory requirements consist of observation and study of children. Prerequisite: None.

Psy 2303 Social Psychology (3-0) .. 3 hours
A survey of the research and theories dealing with a study of human behavior in social situations. Topics include attitudes, prejudices, interpersonal attraction, group behavior, conformity, motivation, and conflict. The student may elect the subject area heading appropriate to his major. The student may not receive credit for both Psy 2303 and Soc 2303. Prerequisite: Psy 1301, Soc 1301, or consent of the instructor.

Personal Development

Personal development at Odessa College has two major functions: to guide the student to a successful college experience and to develop interpersonal skills necessary for successful lifelong endeavors in our American society and world of work.

Emphasis therefore is given to orienting the student to the functions of the college, its rules and regulations, vocational and educational planning, study skills, and proper course selection and placement. Group experiences are designed to provide the student with growth in making personal decisions and building interpersonal relationships.

Psy 1201 Personal Development (2-0) ..... 2 hours
The main purpose of this course is to help students gain the skills and knowledge necessary to function more effectively in the college environment. This is accomplished by assisting students in gaining increased skills in decision-making, assessing current reading levels and analyzing the developing study skills. Students will construct career plans, set long and short range goals, complete an educational plan, and assess their individual learning style. A complete study of the opportunities available at Odessa College is also made during the course. Upon completion of the course, students should have a better understanding of the career they want to pursue, should know the specific courses necessary to accomplish their career goal, shoud know how to study more efficiently, should know their academic strengths and weaknessed, and should have a set of goals along with strategies to accomplish them. Prerequisite: None.

Orien 1101 Orientation (1-0) ..... 1 hour
A program of orientation is presented to encourage the student to become better acquainted with Odessa College and the various services and activities of potential relevance to each individual student. Problems of adjustment to college life are discussed. Prerequisite: None.

Sociology

Soc 1301 Principles of Sociology (3-0) ..... 3 hours
This course provides the student with the basic concepts of sociology and emphasizes the relationship of culture and social interaction to group behavior. It includes an analysis of social organization, deviant behavior, urbanization, and social change. Prerequisite: None.

Soc 1302 Sociology of the Family (3-0) ..... 3 hours
Sociological analyses are made of human relationships pertaining to the varied aspects of courtship, mate selection, and marital adjustment with a study of the problems of adjustment in each stage of the life cycle. Prerequisite: None.

Soc 2301 Social Problems (3-0) .... 3 hours
This course applies sociological concepts to the analysis of current social problems, including family and community disorganization, crime and delinquency, racial and educational problems and conflicts, problems of mass communications, and personal pathologies. Prerequiste: Soc 1301.

Soc 2302 American Minorities (3-0) . 3 hours
A study of the principal minority groups in American Society and their sociological significance; problems of inter-group relations, social movements, and related social changes and the theories explaining such changes. Prerequisite: Soc 1301, or consent of the instructor.

Soc 2303 Social Psychology (3-0) ..... 3 hours
A survey of the research and theories dealing with a study of human behavior in social situations. Topics include attitudes, prejudice, interpersonal attraction, group behavior, conformity, motivation, and conflict. The student may elect the subject area heading appropriate to his major. The student may not receive credit for both Psy 2303 and Soc 2303. Prerequisite: Psy 1301, Soc 1301, or consent of the instructor.

Soc 2304 Fundamental Research Design (3-0) ..... 3 hours
This course provides the student with an introduction to basic research designs utilized by those in the social and behavioral sciences. Topics will include the basic steps of the scientific methods, description and analytical studies, methods of data collection, use of available data collection, use of available data, and analysis and interpretation. Prerequisite: Math 1361 and Psy 1301 or Soc 1301.

Radiologic (X-Ray) Technology

Faculty
Kay Flood, chairman; *Rick Fleetwood, Sue Leach, and Dr. William Melton, lecturers.*

The college offers a cooperative program with the local hospitals designed to provide understanding, proficiency, and skill in Radiologic Technology.

The program is approved by the American Medical Association, Council on Medical Education and the Joint Review Committee on Education in Radiologic Technology. Upon completion of the program the student is granted an Associate in Applied Science Degree and is eligible to apply for the certification examination given by the American Registry of Radiologic Technologists in diagnostic X-ray technology.

The program curriculum is a balance of general educational and technicial courses as well as supervised practicum work at local hospitals. These provide the student an opportunity for educational development as well as occupational competence during the 24-month program.

Because practicum space is limited, students are admitted on a selective basis. To be considered for selection for the beginning second summer session, the student must be a high school graduage or equivalent; achieve a satisfactory score on selected college entrance examinations; show evidence of good physical and mental health; have character references and approval by admissions committee for the program. The student must maintain a "C" average in all Radiologic Technology courses and an average of "C" in all courses or be dropped from the program.

Applicants or those seeking additional information should contact the Radiologic Technology Program Director at the college. Applicants are encouraged to submit their applications by May 30 for review by the Admissions Committee.

Course of Study for Associate in Applied Science

Summer Session

Second Term

Course	Sem. Hrs.
XT 1404	4
Psy 1201	2
*PE	1

First Year

First Semester

Course	Sem. Hrs.
XT 1411	4
XT 1601	6
Biol 1403	4

Second Semester

Course	Sem. Hrs.
XT 1412	4
XT 1602	6
Engl 1311	3
Mgt 2302	3

Summer Session

First Term

Course	Sem. Hrs.
XT 1313	3
Math 1313 or 1321	3

Second Term

Course	Sem. Hrs.
XT 1314	3
*PE	1

Second Year

Third Semester

Course	Sem. Hrs.
XT 2411	4
XT 2601	6
Psy 1301	3
Govt or Hist 2301	3

Fourth Semester

Course	Sem. Hrs.
XT 2412	4
XT 2602	6
Engl 1312 or Spch 2340	3

Summer Session

First Term

Course	Sem. Hrs.
XT 2312	3

*H Ed may be substituted for the two one-hour physical education courses.

XT 1404 Introduction to Radiologic Technology (3-3) ..... 4 hours
An introduction to the field of radiologic technology, radiation protection, professional ethics, darkroom procedures, medical terminology, prime exposure factors, and the technical factors of film quality as well as an introduction to the basic physics of x-ray equipment and auxiliary devices will be presented. Fundamentals of radiographic positioning and the terminology used to describe radiographic projections will also be presented. Standard radiographic projections of the thorax and extremities are discussed and demonstrated. Students produce standard radiographs on radiographic phantoms.

XT 1313 Clinical Practicum (0-25) .. 3 hours
This practicum will place emphasis on the practice of basic radiographic procedures in positioning, on darkroom techniques, and on becoming more professional in the use of anatomical terms. Students will take all standard radiographs under limited supervision. They assist qualified technologists in obtaining radiographs on trauma patients. Prerequisite: XT 1412.

XT 1314 Clinical Practicum (0-25) .. 3 hours
This practicum will further emphasizes the practice of specific positioning of the area to be x-rayed, recognition of the structure and organs visualized, and understanding of the normal function of organs as a basic for certain x-ray examinations. A clinical introduction to fluoroscopic examinations also is offered. Prerequisite: XT 1313.

XT 1411 Clinical Practicum (0-25) .. 4 hours
This is an introduction to the clinical environment at the major facility. Students will rotate through different work areas to observe the operation of the x-ray department. Anatomy and physiology as they relate to radiography will be discussed as well as physics, professional ethics, and the critique of x-ray films. The student will take radiographs of the chest and extremities under close supervision of a qualified technologist. Prerequisite: XT 1404. Corequisite: XT 1601.

XT 1412 Clinical Practicum ..... 4 hours
Students take standard radiographs of the chest and extremities under limited supervision, and standard radiographs of the spine, skull, sinuses, and abdomen under close supervision by a qualified radiologic technologist. Prerequisite: XT 1411. Corequisite: XT 1602.

XT 1601 Basic Radiographic Positioning and Physics (6-0) ..... 6 hours
This course is designed to acquaint the student technologist with the common procedures in radiography. Topics of study include the use of equipment and media, including contrast media; the reactions and contraindications of these media; and nursing procedures pertinent to radiology. X-ray production, interaction of x-rays with matter, basic x-ray circuits, methods of recertification, construction of x-ray accessories, and methods of x-ray detection and measurement will be presented. Prerequisite: XT 1404. Corequisite: XT 1411.

XT 1602 Radiographic Techniques (6-0) ..... 6 hours
Discussion of the characteristics of radiographic film construction, and design of radiographic darkrooms, manual and automatic processing techniques. Special radio-techniques such as stereoradiography and body-section radiography, are discussed, demonstrated, and practiced. A study

of advanced radiographic principles with emphasis on radiation protection, principles of electricity and film quality. Prerequisite: XT 1601; Corequisite: XT 1412.

XT 2313 Clinical Practicum (0-25) .. 3 hours
This practicum will further emphasize the practice of specific positioning of the area to be x-rayed, recognition of the structure and organs visualized, and basic understanding of the normal functions of organs as basis for certain x-ray examinations. Prerequisite: XT 2412.

XT 2411 Clinical Practicum (0-25) .. 4 hours
This practicum will further emphasize the practice of specific positioning of the area to be x-rayed. Students will assist the radiologist with fluoroscopic examinations. Special training will be given in the use of the CT scanner, ultrasound, and other special and emergency procedures. Radiotherapy and nuclear medicine rotations will occur with orientation and practice sessions for students familiarization. Prerequisite: XT 1314. Corequisite: XT 2601.

XT 2412 Clinical Practicum (0-25) .. 4 hours
Students will assist qualified technologists with special procedures, and special radiographic techniques. Equipment maintenance will be stressed. Prerequisite: XT 2411. Corequisite: XT 2602.

XT 2601 Basic Radiographic Positioning and New Technologies (6-0) ... 6 hours
This course is designed to further train the students technologist in common procedures in radiography with a stress on radiation biology and pathology. Topics of study include an overview of the new and not-so-new technologist of computerized tomography, ultrasound, radiation therapy, and nuclear medicine. General administrative duties of departmental work and department design will also be included. Prerequisite: XT 1602. Corequisite: XT 2411.

XT 2602 Radiographic Procedures (6-0) ..... 6 hours
Special radiographic procedures acquaint the student technologist with the specialized and highly technical procedures in radiology, and in the topographic anatomy and the relationship of organs to each other. Conversion factors are stressed so the student can compensate for varied working situations. A complete registry review will be included in this course. Prerequisite: XT 2601. Corequisite: XT 2412.

Reading

Faculty
Dr. Imogene Freer, chairman; Hilda Farr, Jean McColloch.

An effective citizen must read well, and reading courses develop efficient tools to use in today's world of words. These courses are an implementation of the philosophy that the ultimate in reading is never reached and that the so-called study skills are predominantally reading skills. Time spent in this department is an investment in self; anyone, no matter what kind of grades he makes, can improve his reading skills.

All professional fields need 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 the fields of education and teaching. These courses will also serve as a sound introduction for those interested in reading as a major. Reading specialists, reading supervisors, and reading clinicians are all in great demand.

Read 1301 College Reading (3-0) ..... 3 hours
College reading enables all readers to improve their rate of speed and comprehension of various types of materials. Diagnosis of reading strengths and weaknesses, timed reading practices, short lectures, study skills, and vocabulary study will improve work in other courses. Prerequisite: None.

Read 1302 Advanced College Reading (3-0) ..... 3 hours
Independent work continues and maintains improvements in rate of speed and comprehension skills. There is further individualization as each student follows a program designed to meet his specific needs. Prerequisite: Read 1301.

College Reading Techniques

The fundamental purpose of College Reading Techniques is to provide immediate help in reading and learning skills. Open registration is provided for all college students and interested adults who may enroll for noncredit or for one, two, or three hours of credit. Noncredit enrollment is also available for junior and senior high school students. Standardized tests are given to ascertain the reading performance level and to determine specific areas for improvement. After diagnosis, a self-paced plan of action is developed through student-instructor conferences to set immediate and long-range goals.

Read 1101 Improving Reading Skills (0-24) ..... 1 hour
The function of Improving Reading Skills is to improve the student's ability to understand his relationship with the academic demands of the college. Following diagnosis, the student will be taught study skills, vocabulary skills, reading skills, listening skills, and spelling skills in an individualized setting. Prerequisite: None.

Read 1102 Improving Reading Flexibility (0-12) ..... 1 hour
The function of Improving Reading Flexibility is to make the student aware of the importance of vocabulary and the degree of comprehension he may expect when reading in a variety of materials at a variety of speeds. Prerequisite: Consent of the instructor.

Read 1103 Improving Reading Rate and Comprehension (0-12) ..... 1 hour
The function of this course is to provide the student an opportunity to become a trained, successful reader, one who can handle large amounts of written material by emphasizing purpose, concentration, recall, good vocabulary, and rapid reading. Prerequisite: Consent of the instructor.

Real Estate

Faculty
Sid Streicher, chairman; Ernestine Browning.

The primary objective of the Real Estate program is to prepare students for full-time employment in the Real Estate field. The completion of this program will lead to an Associate in Applied Science Degree in Real Estate. All courses in Real Estate are designed to provide basic employment skills for individuals seeking employment in real estate as well as to upgrade those presently employed in the industry.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Math 1311	3	Govt 2301	3
Mgt 1301	3	Mgt 2303	3
Psy 1201	2	PE	1
PE	1	RE 1303	3
RE 1301	3	RE 1304	3
RE 1302	3		

Second Year

Third Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Eco 1301	3	BA 2311	3
Mgt 1303	3	RE 2117	1
RE 2301	3	RE 2303	3
RE 2302	3	RE 2304	3
Approved Elective	3	RE 2305	3
		Approved Elective	3

Approved Electives: Any other Real Estate Course; any other Mid-Management Course; any other Business Administration course; any other Economics course.

RE 1301 Principles of Real Estate
(3-0) ..... 3 hours
This course is a general introduction to real estate as a profession. It includes a study of the nature of real estate and ownership, the principles of title transfer, title insurance, real estate marketing, financing, leasing, taxation, insurance, development, appraising, and the state license law in Texas. The course also includes three hours of instruction on the federal, state, and local laws governing housing discrimination, housing credit discrimination, and community reinvestment. The course is designed to acquaint the student with the wide range of subjects and terminology found in the practice of real estate. Prerequisite: None.

RE 1302 Real Estate Appraisal
(3-0) ..... 3 hours
This course is designed to provide the student with the basic knowledge and skills necessary to demonstrate an application of cost, income, and market data approaches to real property value. It includes an examination of the nature of real property value, the functions and purposes of appraisal, and the methods of estimating residential market value. Prerequisite: None.

RE 1303 Real Estate Finance
(3-0) ..... 3 hours
This course is designed to provide the student with the basic knowledge involved in real estate financing and investment. It includes a study of the institutions involved in real estate financing, the risks involved in financing real estate transactions, the instruments of financing, the terminology of financing, and real property taxation. Prerequisite: None.

RE 1304 Real Estate Law
(3-0) ..... 3 hours
This course is a study of the principles of the laws which governs interests in real estate. It includes the concepts of acquisition, encumbrance, transfer, rights and obligations, and the state and federal statutes which apply to those concepts. The course will help the student analyze the legal consequences of various real estate relationships and transactions to determine when an attorney should be consulted. Prerequisite: None.

RE 2117 Real Estate Internship
(1-20) ..... 1 hour
The students is required to work at least 20 hours per week in a paid, part-time job in an approved firm. Real estate broker's offices, title companies, real estate mortgage companies, and building construction companies are examples of firms which normally will be approved as internship training stations. Students must be employed in occupational situations in which they receive practical training and experience compatible with their real estate career objectives. Enrollment in this course is limited to those students who have not had prior real estate work experience. Instruction will include a one-hour seminar and 20 internship hours each week. Prerequisite: No less than 15 semester hours of course work in Real Estate courses.

RE 2301 Real Estate Sales and Marketing
(3-0) ..... 3 hours
This course is designed to provide the stuent with the knowledge and skills needed in the effective selling of real estate. The course covers the opportunities in real estate, the basic elements of listing property, the basic elements of the offer between buyer and seller, and the basic elements of financing property. Each student will be required to establish a workable pro-

spect system and to design a sales presentation book for listing and selling property. Prerequisite: RE 1301.

RE 2302 Real Estate Investment
(3-0) ..... 3 hours
This course is designed to develop in each student an understanding of the characteristics and benefits of real estate investment. It covers investment analysis and taxation as well as forms of ownership, methods of financing investments, and various types of considerations involved in investments. Prerequisite: RE 1301 and RE 1303.

RE 2303 Property Management
(3-0) ..... 3 hours
This course is designed to provide the student with the knowledge and skills needed in managing income producing property. It includes the utilization of sound accounting and reporting principles; the securing, qualifying, and contracting of tenants and leasees; the legal aspects of property management; and the maintenance, rehabilitation, renovation, and remodeling of income-producing properties. Prerequisites: RE 1301 and RE 1304.

Re 2304 Real Estate Brokerage
(3-0) ..... 3 hours
This course is a study of the factors necessary in the establishment and operation of a real estate sales and brokerage office, including required terminology and the salesperson-broker relationships. The course will prepare the student to identify and utilize effective practices in coordinating and promoting a successful real estate brokerage. Prerequisites: RE 1301 and RE 2301.

RE 2305 Real Estate Problems
(3-0) ..... 3 hours
This course is designed to provide the student with an opportunity to solve practical problems encountered in the real estate profession. The students will work in small groups with each student filling a different real estate position in the group. Each group will participate in problems which are assigned by the instructor and which will cover various facets of real estate practice. Prerequisite: Individual approval of the instructor.

Refrigeration and Air Conditioning

Faculty
Norman Witcher, chairman; James Bates.

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

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1313, 1321, or More Advanced	3	DT 1401 or Engr 1301	4 or 3
Psy 1201	2	*PE	1
*PE	1	R/AC 1303	3
R/AC 1301	3	R/AC 1313	3
R/AC 1311	3	R/AC 1304	3
R/AC 1302	3	R/AC 1314	3
R/AC 1312	3		

Summer Session

First Term		Second Term	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312 or Spch 2340	3
R/AC 1306	3	R/AC 2305	3

Second Year

1. Minimum of twenty-one additional semester hours in R/AC courses.
2. Minimum of six semester hours of approved electives.**
3. Govt 2301 or 2302

*H.Ed 1301 may be substituted for the two 1-hour physical education courses.
**Approved electives may be any R/AC courses not already required; AT 2602; Mgt 2303; BA 1301, WT 1601; Math 1323 or higher; Read 1301; any II; ET 1401, 1403, 1404, 2403, 2406, 2407, 2408, 2410.
Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight semester hours in R/AC courses.

Refrigeration and Air Conditioning

Solar Energy Option

The field of solar energy is one of the newest, and yet oldest, fields under the sun. This course of study covers the systems of the ancient Aztecs to the modern tracking heating and cooling systems used today. This course is designed to prepare the technician to work in the solar field. The student at the end of this course of study should be able to design, size, build, install, and maintain solar systems. All types of solar systems will be covered active, passive, air, liquid, and greenhouse.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Math 1313, 1321 or More Advanced	3	DT 1401 or Engr 1301	4 or 3
Psy 1201	2	*PE	1
*PE	1	R/AC 1305	3
R/AC 1301	3	R/AC 1315	3
R/AC 1311	3	R/AC 2300	3
R/AC 1302	3	R/AC 2310	3
R/AC 1312	3		

Summer Session

First Term		Second Term	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312 or Spch 2340	3
R/AC 1306	3	R/AC 2305	3

Second Year

Course	Sem. Hrs.	Course	Sem. Hrs.
R/AC 2306	3	R/AC 2308	3
R/AC 2316	3	R/AC 2318	3
**Approved Electives	6	**Approved Electives	9
Govt 2301 or 2302	3		

*H.Ed 1301 may be substituted for the two 1-hour physical education courses.
**Approved electives may be any R/AC courses not already required or: AT 2602, Mgt 2303; BA 1301; WT 1601; Math 1323 or higher; Read 1301; ET 1401, 1403, 1404, 2403, 2406, 2407, 2408, 2410 or any II.
Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight semester hours in R/AC courses.

R/AC 1301 Refrigeration Theory (3-0) ..... 3 hours
This is a course in theory and is designed to give the students a sound, basic understanding of heat transfer, behavior of gases, the refrigeration cycle, component parts of the compression refrigeration machine and its accessories. Prerequisite: None.

R/AC 1302 Basic Control Theory (3-0) ..... 3 hours
This course begins with basic electricity. It progresses to electric motors, design and function of starters, contactors, relays, capacitors, overloads, and control circuits as applied to the refrigeration and air conditioning industry. Prerequisite: None.

R/AC 1303 Refrigeration and Air Conditioning Component Analysis (3-0) ..... 3 hours
This course deals with refrigeration and air conditioning components. It is designed to give the student an understanding in the theory and application of metering devices, evaporators, compressors, condensers, driers, sight glasses, and system accessories. Prerequisite: R/AC 1301.

R/AC 1304 Air Conditioning Fundamentals (3-0) ..... 3 hours
This course deals with gas controls, properties of gas and gas piping, gas combustion, gas burners, gas trouble shooting, and venting for heating and absorption (gas) refrigeration systems. This is an indepth study in procedure of servicing and correcting difficulties with gas-fired equipmnt. Prerequisite: None.

R/AC 1305 Fundamentals of Sheet Metal Pattern Drafting and Layout (3-0) ..... 3 hours
This course covers the principles of basic sheet metal. The use of sheet metal tools, basic sheet metal layout, and the building of basic sheet metal components will be studied. Prerequisite: None.

R/AC 1306 Heat Pump Theory (3-0) ..... 3 hours
This is an applied course which will give the student an understanding of heat pumps, sizing, installation, servicing, and troubleshooting. Duct sizing problems, advantages, and special applications of the heat pump will also be studied. Prerequisite: R/AC 1301.

R/AC 1311 Refrigeration Theory Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 1301 by giving the student practice on the basic refrigeration cycle. Prerequisite or Corequisite: R/AC 1301.

R/AC 1312 Basic Control Theory Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 1302 by giving the students practice on the basic controls of the refrigeration and air conditioning industry. Prerequisite or Corequisite: R/AC 1302.

R/AC 1313 Refrigeration and Air Conditioning Component Analysis Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 1303 by giving the student practice on refrigeration and air conditioning components. Prerequisite or Corequisite: R/AC 1303.

R/AC 1314 Air Conditioning Fundamentals Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 1304 by giving the student practice on the gas-fired equipment. Prerequisite or Corequisite: R/AC 1304.

R/AC 1315 Fundamentals of Sheet Metal Pattern Drafting and Layout Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 1305. Corequisite: R/AC 1305.

R/AC 2300 Solar Power (3-0) ..... 3 hours
This is an applied course in the use of solar power for heating and cooling. This course will give the student an understanding of solar history, application of solar power today, and the possible future use of solar power. This is a practical course in sizing collectors, in sizing storage units, and in sizing exchange units. Both active and passive units will be studied. Prerequisite: None.

R/AC 2301 Advanced Control Theory (3-0) ..... 3 hours
This course offers the students theory and application in design of both primary and secondary electrical systems used in the refrigeration and air conditioning industry. Prerequisite: R/AC 1302.

R/AC 2302 Refrigeration and Air Conditioning Analysis (3-0) ..... 3 hours
This course is designed to prepare students to rate and select refrigeration and air conditioning equipment, design air distribution systems using

psychometrics, and estimate loads of both residential and commercial applications. Prerequisite: R/AC 1301.

R/AC 2303 Electronic Control Theory (3-0) ..... 3 hours
This is an applied course which will give the student an understanding of semi-conductors, diodes, resistors, thermistors, thermo-couples, rectifiers, and amplifiers used in the refrigeration and air conditioning industry. Prerequisite: R/AC 1302.

R/AC 2304 Refrigeration and Air Conditioning Trouble Shooting (3-0) ..... 3 hours
This course of study will include trouble shooting the complete refrigeration and air conditioning system. It will cover both the electrical system and refrigeration cycle. Prerequisite: R/AC 1301.

R/AC 2305 National Electric Code (3-0) ..... 3 hours
This is an applied course which will cover the National Electric Code as applied to the refrigeration and air conditioning industry. Prerequisite: None.

R/AC 2306 Advanced Solar Power (3-0) ..... 3 hours
This course in solar will deal with complex solar systems. The student will learn to build, install, maintain, and evaluate the operation and energy savings of different types of solar systems. Prerequisite: R/AC 2300.

R/AC 2307 Advanced Sheet Metal Pattern Drafting and Layout (3-0) ..... 3 hours
This course covers the advanced principles of sheet metal. The use of sheet metal tools, sheet metal layout, and the building of complete sheet metal systems will be studied. Prerequisite: R/AC 1305.

R/AC 2308 Special Problems (3-0) .. 3 hours
Students will be assigned special problems to meet specific needs. Modern techniques will be emphasized. All assignments will be made on an individual basis. Prerequisite: R/AC 1301 and R/AC 1302.

R/AC 2309 Building Energy Audit Training (3-0) ..... 3 hours
This course will cover methods of performing a building energy audit, identification and evaluation of the energy conservation options available, and stating the savings opportunities in an understandable fashion. Prerequisite: None.

R/AC 2310 Solar Power Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2300 by giving the student practice in working on solar power heating systems and solar power cooling systems. Prerequisite or Corequisite: R/AC 2300.

R/AC 2311 Advanced Control Theory Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2301 by giving the student job practice on installation and trouble shooting both primary and secondary electrical systems. Prerequisite or Corequisite: R/AC 2301.

R/AC 2312 Refrigeration and Air Conditioning Analysis Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2302 by giving the student practice on installing and testing residential or small commercial equipment. Prerequisite or Corequisite: R/AC 2302.

R/AC 2313 Electronic Control Theory Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2303 by giving the student practice on electronic equipment. Prerequisite or Corequisite: R/AC 2303.

R/AC 2314 Refrigeration and Air Conditioning Trouble Shooting Laboratory (0-7) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2304 by giving the student practice trouble shooting refrigeration and air conditioning systems. Prerequisite or Corequisite: R/AC 2304.

R/AC 2316 Advanced Solar Power Laboratory (0-5) ..... 3 hours
This course will allow the student the opportunity to work with the solar system studied in R/AC 2306. Prerequisite or Corequisite: R/AC 2306.

R/AC 2317 Advanced Sheet Metal Pattern Drafting and Layout Laboratory (0-5) ..... 3 hours
This laboratory will illustrate and reinforce principles and concepts of R/AC 2307. Prerequisite or Corequisite: R/AC 2307.

R/AC 2318 Special Problems Laboratory (0-5) ..... 3 hours
Students will be assigned to build

and/or install the system or project designed in special problems R/AC 2308. Workmanship, practicability and operation of the system or project will be emphasized. All assignments will be made on individual basis. Prerequisite or Corequisite: R/AC 2308.

R/AC 2319 Building Energy Audit Training Laboratory (0-5) ..... 3 hours
Students will be assigned a building and/or buildings on which to complete an Energy Audit. Suggestions for improvements and estimates of energy savings as a result of the audit will be required. Prerequisite or Corequisite: R/AC 2309.

Respiratory Therapy

Faculty
Bob Hertenstein, chairman. *Stan Cohn, Dr. Teresita Dujon, Willie Longoria, and Dr. Jayaram Naidu, lecturers.*

Odessa College offers an intensive program in Respiratory Therapy in affiliation with area hospitals. The program is designed to provide a thorough understanding and proficiency in all facets of pulmonary care. This relatively new profession in paramedical fields of medicine includes working with life-support systems and respiratory rehabilitation of the pulmonary cripple.

The program curriculum balances general educational and technical courses with supervised clinical work in local hospitals under the direction of registered therapists. Medical direction is provided by an M.D. proficient in the field of pulmonary medicine. This setting provides the student an excellent opportunity for educational development, as well as occupational competence during the full two-year course of study.

Students are admitted prior to each fall semester on a selected basis because of limited space in the clinical area of study. Requirements for admission are high school graduation or its equivalent, satisfactory achievement on the college entrance examination, evidence of good health, personal interview, character references, and approval of the admissions committee for the program.

The student may not receive a grade lower than "C" in any respiratory therapy course and must maintain a "C" average or better in all other courses. Students failing to meet these scholastic requirements will be dropped from the program.

The Respiratory Therapy Program is accredited by the Council of Education of the American Medical Association through the recommendations of the Joint Review Committee for Respiratory Therapy Education. After successful completion of the course of study the student is eligible to sit for the registry exam given by the National Registry for Respiratory Therapy.

Students wishing to apply for admission or seeking additional information should contact the Chairman of the Respiratory Therapy program. Applicants are requested to submit their application before June 15 for review by the Admissions Committee.

Course of Study for Associate inb Applied Science Degree

***First Year**

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Biol 1100	1	Biol 1403	4
Biol 1400	4	RT 1402	4
RT 1301	3	RT 1322	3
RT 1304	3	RT 1302	3
RT 1211	2	Math 1313 or More Advanced	3
Psy 1201	2		

Summer Session

First Term		Second Term	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312	3
Govt/Hist	3	Psy 1301	3

Second Year

Third Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
RT 2401	4	RT 2402	4
RT 2221	2	RT 2222	2
Chem 1301	3	Biol 2403	4
Chem 1101	1	**EMT 1301	3
PhSc 1301	3	Mgt 1301	3
PhSc 1101	1		

Summer Session

First Term

Course	Sem. Hrs.
RT 2223	2
RT 2103	1

*A one-year technician program has been approved by the Texas Education Agency and is currently under development. For more information contact the chairman of the respiratory therapy program.

**EMT 1301 is substituted for the two required hours of physical education.

RT 1211 Fundamentals of Respiratory Therapy Lab I (0-6) ..... 2 hours
This laboratory will illustrate and reinforce principles and concepts of RT 1302 by allowing students to perform specific experiments using respiratory therapy equipment simulated clinical situations. The laboratory will aid the student in developing a degree of proficiency of skill prior to performing respiratory therapy modalities on patients. Part of the laboratory will be in the hospital with an instructor. Prerequisite: None. Corequisite: RT 1304.

RT 1301 Introduction to Pharmocology (3-0) ..... 3 hours
This course is designed to orient the students to pharmacological principles and their applications in medicine. The course includes general principles of sedatives and hypnotics, analgesics, central nervous system stimulants, drugs affecting the autonomic nervous system and the cardiovascular system and water and salt balance. Prerequisite: None.

RT 1302 Cardiopulmonary Pathophysiology (3-0) ..... 3 hours
This course is designed to present to the student the abnormal conditions of the cardiopulmonary system and the effects these conditions produce. It will include: pathophysiology; definition of the various disease processes affecting the cardiopulmonary system; and a description of the general nature of treatment. Physicians and other recognized professionals will be invited as guest lecturers in this course. Prerequisites: RT 1301 and RT 1304. Corequisites: Biol 1403.

RT 1304 Fundamentals of Respiratory Therapy I (3-0) ..... 3 hours
This course is designed to review the cardiopulmonary anatomy and physiology. The theory and importance of the proper administration and humidification of gases will be stressed. Included will be the theory of gas therapy, oxygen therapy, and envoironmental devices.

RT 1322 Clinical Practicum I (0-25) ..... 3 hours
Under close supervision the student will gain experience in clinical application of respiratory therapy techniques. Prerequisite: RT 1304. Corequisite: RT 1402.

RT 1402 Fundamentals of Respiratory Therapy II (3-3) ..... 4 hours
This course is a survey of ventilators and respiratory, including basic classification, principles of operation and maintenance. Included is an introduction to usage in clinical environment, acid base balance, and airway management. Prerequisite: RT 1304.

RT 2103 Case Study Seminar (1-10) ..... 1 hour
This course will consist of case study and journal report presentations. The staff, faculty and students will have the opportunity to discuss and evaluate each presentation.

RT 2221 Clinical Practicum II (0-10) ..... 2 hours
Students, under close supervision, will begin to develop proficiency in administering respiratory therapy procedures and individual skills and techniques. Prerequisite: RT 1322.

RT 2222 Clinical Practicum III (0-16) ..... 2 hours
This is a continuation of practicum II. The student will be allowed to perform independently in intensive care, coronary care and throughout the hospital. Specific patients will be assigned to the student to care for through entire an practicum day. The student will give a report about each patient cared for at the end of the practicum day to the clinical instructor. Prerequisite: RT 2221.

RT 2223 Clinical Practicum IV (0-40) ..... 2 hours
This clinical practice involving direction of hospital technicians, organization of work schedules, and challenging the departmental organization. The student will be required to develop and write behavior objectives and give an in-service education session. A one-hour seminar each week will be held to discuss budgeting, ordering and justifying equipment needs, and other topics related to practicum. Prerequisite: RT 2222.

RT 2401 Advanced Respiratory Therapy (3-3) ..... 4 hours
This is a continuation of RT 1402. Also included is airway management related to intubation and usage in the clinical environment, as well as pulmonary function and acid-base theory. Prerequisite: RT 1402.

RT 2402 Cardiopulmonary Dynamics (3-2) ..... 3 hours
This course is a study of advanced concepts related to electrocardiography, cardiaccatherization, respiratory rehabilitation, and hyperbaric oxygenation. Prerequisite: None.

Social Sciences

Faculty
Dr. Dick Kennedy, chairman; Brian Dille, Dr. Tom Heiting, Truett Hilliard, Jack Kitzmiller, Robert Porter, Dr. Helen Reinhart, Dr. Bob Sturges, Dr. Kenneth Yeilding.

The Social Sciences deal with the three basic relationships which mankind has dealt with since the dawn of time. Those relationships involve man with his fellow man (History, Economics, and Government); man with himself (Philosophy); and, man with God (Religion). No one could challenge the effect that philosophers, historical events, political theories, economic ideas, or religious concepts have had on the lives of men.

The four-semester curriculum outlined below leads to an Associate in Arts Degree. The Social Sciences provide the students with the analytical tools needed to become an effective participant in our democratic society, as well as opening the door to various career opportunities. A background in the social sciences is particularly suitable to government employment, such as the Social Security administration, social welfare employment, the Federal Reserve banks, and other types of government career 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

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Eco 2301	3	Eco 2302	3
Engl 1311	3	Engl 1312	3
Hist 1301 or 1303	3	Hist 1302 or 1304	3
Lang 1411	4	Lang 1412	4
Math 1341 or More Advanced	3	Math 1343 or More Advanced	3
Psy 1201	2	PE	1
PE	1		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl (Sophomore Level)	3	Engl (Sophomore Level)	3
*Hist 2301	3	*Hist 2302	3
Govt 2301	3	Govt 2302	3
Lang 2311	3	Lang 2312	3
PE	1	PE	1
**Approved Elective	3	**Approved Elective	3

*Hist 2303 may be substituted for either Hist 2301 or 2302.
**Approved electives are Hist 2303, 2304, and Soc 2302.

Economics

Eco 1301 Introduction to Economics (3-0) ..... 3 hours
This is a broad survey course to permit the average citizen to increase his economic literacy. The course includes a discussion of economic resources, basic economic decisions, the price system, the role of money and banking, the problems of inflation and employment, and other personal and public economic issues. Recommended for Mid-Management majors and students who want a general knowledge of economics. May not be taken as a replacement for Economics 2301 and/or 2302. Prerequisite: None.

Eco 2301 Principles of Economics (3-0) ..... 3 hours
This course is designed to provide the student with the fundamental analytic concepts of economic theory and practice. Emphasis is placed on microeconomic theory. Topics include basic theory, price and output determination under varying conditions, and income distribution and factor prices. Prerequisite: None.

Eco 2302 Economic Problems (3-0) ..... 3 hours
This course attempts to provide the student with the basic analytic concepts relevant to the aggregate economy. Emphasis is placed on macroeconomic theory and practice. Topics included in this course are money and banking, national income and employment, economic growth, public spending, and the international economy. Prerequisite: None.

Government

Govt 2301 State and Federal Government (3-0) ..... 3 hours
This course considers the development of political thought, the origin and development of the Constitutions of the United States and Texas, federalism, interstate relations, state and local governments, political parties and elections. Prerequisite: None.

Govt 2302 State and Federal Government (3-0) ..... 3 hours
This course deals with the legislative, executive and judicial functions of the federal and state governments, the federal bureaucracy, civil rights, foreign policy, and government financing. Prerequisite: None.

Govt 2303 Introduction to International Relations (3-0) ..... 3 hours
The theory and practice of international relations with particular attention to the forces and processes con-

tributing to conflict and cooperation among nations. Prerequisite: None.

Govt 2304 Introduction to Public Administration (3-0)..... 3 hours
A study of the processes involved in the management of men and materials in the accomplishment of the purposes of government. Analysis of the structure and procedure of the administrative or executive branch of government, with particular reference to national, state, and local governments in the United States. Prerequisite: None.

History

Hist 1301 History of Modern Europe to 1815 (3-0)..... 3 hours
This course surveys the social, economic, and political developments in Medieval and Modern Europe. Special emphasis is placed on the Renaissance, Protestant Reformation, overseas expansion during the sixteenth and seventeenth centuries, the struggle for parliamentary government in England, the French Revolution, and the Napoleonic period. Prerequisite: None.

Hist 1302 History of Modern Europe Since 1815 (3-0)..... 3 hours
This course includes a study of the results of the Napoleonic era, the rise of liberalism and nationalism, the causes and results of World War II, post-war problems and prospective solutions. Prerequisite: None.

Hist 1303 Western Civilization to 1648 (3-0)..... 3 hours
A survey of the development of Western civilization from its origins in Egypt, Mesopotamia, Greece and Rome, through the medieval synthesis to the mid-17th Century. Prerequisite: None.

Hist 1304 Western Civilization Since 1648 (3-0)..... 3 hours
A continuation of the history of western civilization from the mid-17th Century to contemporary times. Emphasis will be given to the development of the national state system, industrialism, imperialism, individualism and the mass movements of the 20th Century. Prerequisite: None.

Hist 2301 United States History to 1877 (3-0)..... 3 hours
This course deals with such topics as the European background, the establishment of colonial foundations, the rise of American nationality, the growth and sectional crisis, the Civil War, and Reconstruction. Prerequisite: None.

Hist 2302 United States History from 1877 (3-0)..... 3 hours
This course deals with the growth of big businesses and the accompanying problems. American imperialism, causes and results of World War I, causes of World War II, and the post-war adjustments and prospective solutions. Prerequisite: None.

Hist 2303 History of Texas (3-0)..... 3 hours
This is a survey course of the history of Texas. Topics stressed include European approach to Texas, Spanish and French rivalry, exploration and control, Anglo-American colonization, relations with Mexico, the Texas Revolution, Texas as a Republic, annexation, statehood, reconstruction and other political and economic developments. Prerequisite: None.

Hist 2304 Afro-American History (3-0)..... 3 hours
A brief survey of the role and contributions of Afro-Americans to the development and culture of the United States. Prerequisite: None.

Philosophy

Phil 2301 Introduction to Philosophy (3-0)..... 3 hours
The introductory course in Philosophy is an adventure in ideas. Ultimate questions about the significance of our lives will be asked anew and with the insights gleaned from the world's greatest philosphers each student will seek to clarify their own ideas and beliefs concerning themselves, their world, and their ultimate destiny. Prerequisite: None.

Phil 2302 Philosophies to Live By (Ethics) (3-0)..... 3 hours
An introduction to ethical theories based on answers given by the world's great philosophers to the questions, "What makes acts right?" and "what is the good life?" The nature of goodness, duty, and freedom will be discussed and selected ethical problems will be considered in the light of each of these basic ethical systems. Prerequisite: None.

Religion

Bib 1101 Acts of the Apostles (1-0)..... 1 hour
This course is a study of the expansion

of Christian beliefs, practices, and fellowships from Palestine to outlying parts of the Roman Empire. It includes a personality study of Peter, John, Paul, and other apostles. Prerequisite: None.

Bib 1301 Old Testament History (3-0) ..... 3 hours
This is an introductory survey of the Old Testament Emphasis is placed on the historical setting, the types of religious literature, and the religious element underlying the whole. Prerequisite: None.

Bib 1302 New Testament History (3-0) ..... 3 hours
This introductory survey of the New Testament places emphasis upon the life and teachings of Jesus as found in the Gospels, upon the expansion of early Christianity, with a brief study of Paul's epistles, the general epistles, and Revelation. Prerequisite: None.

Bib 2301 History of the Life of Christ (3-0) ..... 3 hours
This course is a study of the life of Christ as portrayed by Matthew, Mark, Luke, and John. Prerequisite: None.

Bib 2302 The Life and Letters of Paul (3-0) ..... 3 hours
This course consists of a study of the life and ministry of the apostle Paul, and an examination of his writings and central ideas. Prerequisite: None.

Relg 1301 Philosophy of Religion (3-0) ..... 3 hours
An examination of the nature and meaning of religion and religious expression. Emphasis will be upon the development of religious thinking in western civilization. Typical topics will be faith and reason, religions authority, science and religion, the problems and implications of freedom, evil and conscience. Prerequisite: None.

Relg 1302 History of Religion (3-0) ..... 3 hours
Historical investigation of the development of the world from prehistory to modern history. Emphasis will be placed upon role of religions in world history. Prerequisite: None.

Relg 1303 Comparative Religions (3-0) ..... 3 hours
A survey of the religions of the world. Included are status of Hinduism, Buddhism, Confucianism, Taoism, Shinto, Judaism, Christianity and Islam. Prerequiste: None.

Welding

Faculty
Duane Nobles, chairman; Jo McMurry, Melton Paysinger.

Welding and cutting is one of the most important methods used in the fabrication and construction of products and structures made of metal. The welding program provides the student with sufficient skill in electric arc and gas welding procedures for entry employment in these occupations. Students completing the associate degree program will have sufficient background in mathematics, management, communications, blueprint reading, and layout to interpret engineers' plans and instructions, and to work as a supporting technician with a minimum of orientation.

Course of Study for Associate in Applied Science Degree

First Year

First Semester		Second Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
DT 1401 or Engr 1301	4 or 3	Math 1313 or 1321	3
Psy 1201	2	*PE	1
*PE	1	WT 1603	6
WT 1601	6	WT 1604	6
WT 1602	6		

Second Year

Third Semester		Fourth Semester	
Course	Sem. Hrs.	Course	Sem. Hrs.
Engl 1311	3	Engl 1312 or Spch 2340	3
Mgt 1301	3	Govt 2301 or 2302	3
WT 2601	6	WT 2603	6
WT 2602	6	WT 2604	6

*H Ed 1301 may be substituted for the two 1-hour physical education courses. Students not desiring the AAS degree may receive a Certificate of Technology by completing a minimum of forty-eight hours in WT courses.

WT 1601 Basic Arc Welding (2-8) ..... 6 hours
This course is a study of the basic principles and practices involving electric arc welding and acetylene cutting. It includes related theory in the field of metallurgy as it applies to welding on some of the common metals. Orientation, safety, operation and machine maintenance are stressed. Prerequisite: None.

WT 1602 Basic Acetylene Welding (2-8) ..... 6 hours
This course deals with basic oxy-acetylene welding and cutting. It will also include metal preparation for welding. Emphasis will be placed on torches and regulators, flame adjustment for cutting and welding, and safe procedures for handling oxy-acetylene equipment. Prerequisite: None.

WT 1603 Intermediate Arc Welding (2-8) ..... 6 hours
This course includes welding with major emphasis placed on the proper execution of all-position V-groove carbon steel plate and pipe welding with "open stringer." ASME testing standards will be used. Prerequisite or Corequisite: WT 1601.

WT 1604 Welding Layout and Fabrication (2-8) ..... 6 hours
This course places emphasis on constructing various types of layouts according to specifications. Related theory and practice involved in the fabrication and design of welded fittings and structures will be studied. Prerequisite or Corequisite: WT 1603.

WT 2601 Advanced Arc Welding (2-8) ..... 6 hours
Advanced arc welding includes the execution of all types of welds on various types of alloys and the study of electrodes used. A continuation of fabrication and layout techniques with major attention devoted to piping, forged fittings, structural principles, job planning, and cost factors. Prerequisite: WT 1603.

WT 2602 Advanced Acetylene Welding (2-8) ..... 6 hours
Advanced acetylene welding deals with the application of hard surfacing, solder, silver solder, brazing, and the advanced usage of a cutting torch. This course includes arc welding using LH 7018 electrodes. Prerequisite: WT 1602 and 1603.

WT 2603 Metallic Inert Gas (MIG) Welding (2-8) ..... 6 hours
This course provides instruction and usage of metallic inert gas welding (MIG) machines on mild steel, aluminum, and stainless steel. The different shield gases will be studied. The mixture of these gases and their effect upon the arc and welds will be emphasized. Prerequiste or Corequisite: WT 2601.

WT 2604 Tungsten Inert Gas (TIG) Welding (2-8) ..... 6 hours
This course places emphasis on proper procedures to be used in tungsten inert gas (TIG) welding and carbon arc cutting of various types of metals. Advantages and disadvantages of different shield and purge gases will be studied. Prerequisite or Corequisite: WT 2602.

Welding
Open-Entry, Clock-Hour Program

The open-entry, clock-hour program is a personalized instructional system designed to offer the student a concentrated individualized curriculum in basic skills. Block-time programs meet 20 to 40 hours per week depending upon the course and the personal schedule of the individual. A student

may register for the following program on any week day. Classes start each Monday. Enrollment may be limited to available space. An Associate Degree option is available. Detailed information and admission and registration forms are available in the office of the program director or Counseling Center.

Course No.	Course Name	Clock Hours	Semester Hours	Weeks
WT 1841	Basic Arc Welding	200	8	10
WT 1842	Intermediate Arc Welding	200	8	10
WT 1843	Advanced Arc Welding	200	8	10
WT 1544	Basic Acetylene Welding	140	5	7
WT 1445	Advanced Acetylene Welding	100	4	5
WT 1846	Welding Layout & Fabrication	200	8	10
WT 1547	Metallic Inert Gas (MIG) Welding	160	5	8
WT 1548	Tungsten Inert Gas (TIG) Welding	160	5	8
WT 1449	Blueprint Reading and Drawing	100	4	5

Estimated cost of books and safety equipment — $50-$100.

WT 1445 Advanced Acetylene Welding [(4-16) for 5 Weeks] ..... 4 hours
Advanced acetylene welding deals with application of hard surfacing, solder, silver solder, brazing, and the advanced usage of a cutting torch. Prerequisite: WT 1544 or consent of instructor.

WT 1449 Blueprint Reading and Drawing [(4-16) for 5 Weeks] ..... 4 hours
This course is a study of the fundamental drafting techniques used in the welding industry. Emphasis is placed on fabrication prints, dimensioning, sectional views, symbols, and visualization of objects in a pictorial form. Some shop print drawing will be required. Prerequisite: Consent of instructor.

WT 1544 Basic Acetylene Welding [(4-16) for 7 Weeks] ..... 5 hours
This course deals with basic oxy-acetylene welding and cutting. It will also include metal preparation for welding. Emphasis will be placed on torches and regulators, flame adjustment for cutting and welding, and safe procedures for handling oxy-acetylene welding. Prerequisite: Consent of instructor.

WT 1547 Metallic Inert Gas (M.I.G.) Welding [(4-16) for 8 weeks] ..... 5 hours
This course provides instruction and usage of metallic inert gas welding (M.I.G.) machines on mild steel, aluminum, and stainless steel. The different shield gases will be studied. The mixture of these gases and their effect upon the arc and welds will be emphasized. Prerequisite: WT 1843 or consent of instructor.

WT 1548 Tungsten Inert Gas (T.I.G.) Welding [(4-16) for 8 Weeks] ... 5 hours
This course places emphasis on proper procedures to be used in tungsten inert gas (TIG) welding and carbon arc cutting of various types of metals. Advantages and disadvantages of different shield and purge gases will be studied. Prerequisite: WT 1445 or consent of instructor.

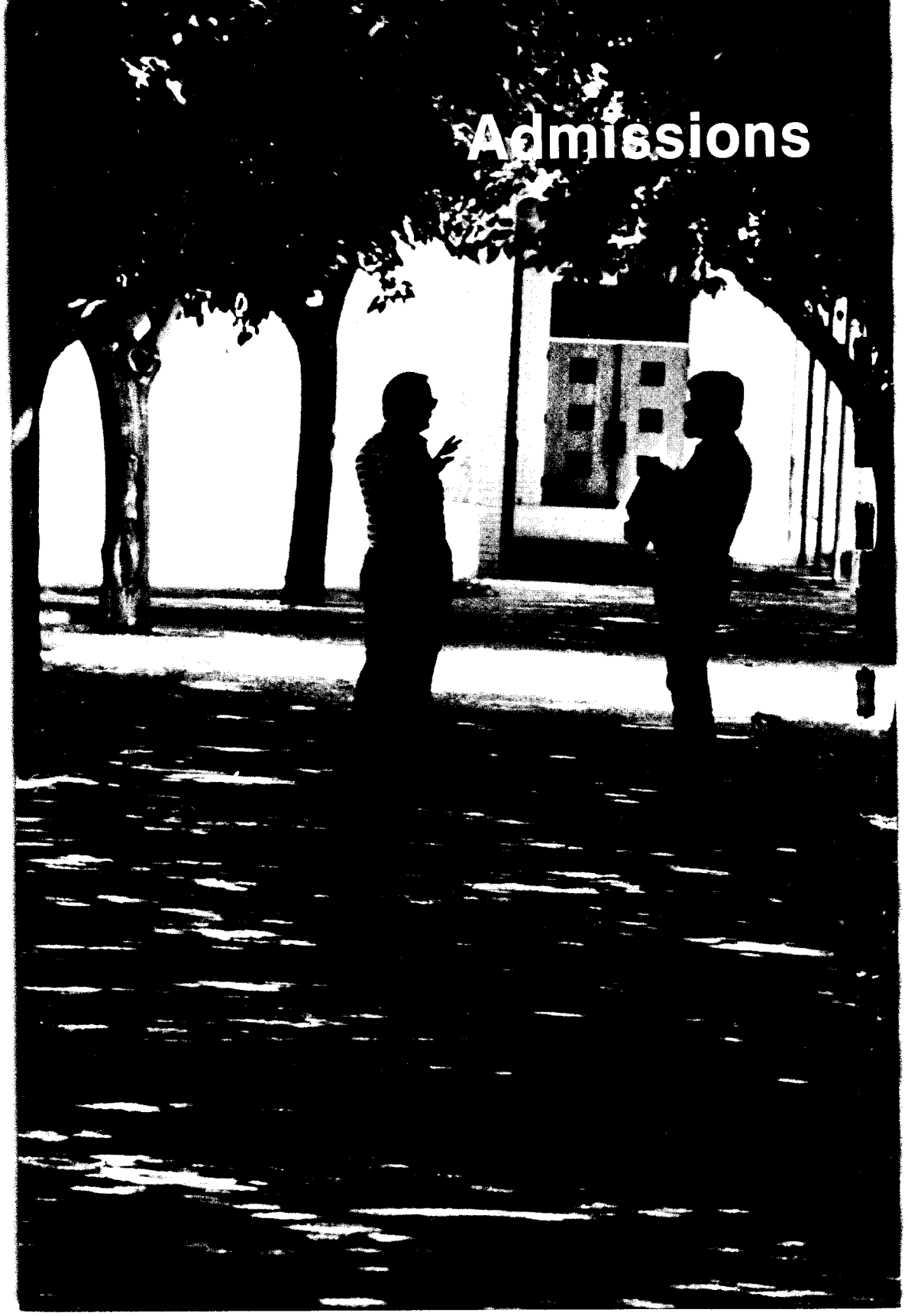
WT 1841 Basic Arc Welding [(4-16) for 10 Weeks] ..... 8 hours
This course is a study of the basic principles and practices involving electric arc welding and acetylene cutting. It includes related theory in the field of metallurgy as it applies to welding on some of the common metals. Orientation, safety, operation and machine maintenance are stressed. Prerequisite: Consent of instructor.

WT 1842 Intermediate Arc Welding [(4-16) for 10 Weeks] ..... 8 hours
This course includes welding with major emphasis placed on proper execution of all position V-groove carbon steel and pipe plate welding with "open stringer." ASME testing standards will be used. Prerequisite: WT 1841 or consent of instructor.

WT 1843 Advanced Arc Welding [(4-16) for 10 Weeks] ..... 8 hours
Advanced arc welding includes the execution of all types of welds on various types of alloys and the study of electrodes used. A continuation of fabrica-

tion and layout techniques with major attention devoted to piping, forged fittings, structural principles, job planning, and cost factors. Prerequisite: WT 1842 or consent of instructor.

WT 1846 Welding Layout & Fabrication [(4-16) for 10 Weeks] ..... 8 hours
This course places emphasis on constructing various types of layouts according to specifications. Related theory and practice involved in the fabrication and design of welded fittings and structures will also be studied. Prerequisite: WT 1842 or consent of instructor.


Admissions

Admissions Policies

Odessa College has an open-door admissions policy, welcoming all adults who want to learn. Any adult, whether a high school graduate or not, who is interested in learning can be admitted to Odessa College.

A Counseling Center is available to all students. Counselors discuss career and educational goals with students so a study plan can be drawn for each individual. The Counseling and Testing Center also makes available various types of tests to help each student determine his aptitudes, interests, scholastic strengths and weaknesses, and other information that is helpful to a student making a career decision.

First-time students at the college are provided the opportunity to attend an orientation lab where counselors help acquaint students with college services and opportunities.

As a community college, Odessa College has students of all ages, from recent high school graduates to senior citizens. Many students are employed as they pursue their educations. The college welcomes all students and intends to provide educational services to students of all ages and educational needs. Each student is important and each student finds his place at Odessa College.

Procedure

Students applying for admission should have their academic records sent to the Dean of Admissions at Odessa College as early as possible. They should complete an application for admission and a health form. Students whose records are incomplete at the time of registration may be admitted to Odessa College but necessary records must be furnished before a transcript from OC can be obtained.

Every student seeking admission must furnish the college with proof that he has complied with the Texas Immunization Laws concerning immunization against certain diseases. This includes a tetanus/diphtheria shot taken within the last ten years for every student and polio (oral vaccine) immunization for all under the age of 19 with the last of the four doses taken after age four.

Students may be admitted to Odessa College by any of the following methods:

- By High School Graduation— Graduates of accredited high schools satisfy the minimum requirements for admission. This student must submit an official high school transcript showing the date of graduation.
- Through Early Admission Program — A high school senior may enroll in a maximum of two courses per semester during the senior year if he is within four units or twelve quarter credits of graduation from high school and has submitted the prescribed documentation signed by his parent or guardian, his high school counselor, and his high school principal.
- By Individual Approval — Any person who is at least 18 years of age and whose class has graduated from high school may be admitted if it is determined that he can benefit from a course of study.
- By Written Examination — A person who has not graduated from high school may be admitted if he has passed the General Educational Development Test (GED) and is 18 years of age and has terminated attendance in high school for one or more semesters and does not plan to return to high school. Proof the GED has been passed must be submitted.
- Re-Entry — Former students in good standing who have not attended another college since enrollment in Odessa College are eligible for readmission.
- By Transfer From Another College —An applicant transferring from another institution is ordinarily eligible for admission if he is eligible for readmission to the institution which he was attending. An official transcript of his college or university record should be submitted prior to registration. Scholastic deficiencies of transfer students will be reviewed

by the Dean of Admissions and a decision made as to the eligibility of the student for admission on the basis of his academic record at the last college in which he was enrolled. Admission of a student who has attended another college or university will be based on the same procedure as that of any transfer students.

Additional criteria are required for alien or foreign students. Alien students should have achieved the 50th percentile on the Test of English as a Foreign Language (TOEFL). Alien students should also have on deposit in the U.S. the minimum sum of $2,000 to cover the cost of tuition, books, fees and other expenses for each semester. Each must also present a current visa, passport, and transcripts of academic records from other schools, colleges, or universities which he has attended. These documents must be official and translated into English. Copies will not be accepted.

Entrance Examinations

The college will accept both ACT or SAT for guidance and counseling purposes. All of these tests are administered on the college campus, and the dates for these tests are announced periodically. Since the results of these examinations are used to help students select correct course levels and for general guidance purposes, all students are advised to take an exam at least six weeks prior to their enrollment even though it is not required for admission.

Early Registration

Early registration for a semester means that the student, with the help of college counselors and faculty members, will select the proper courses and complete all registration except for payment of fees.

Students who register early have the option to pay fees during early registration or by a specified date. If a student does not pay and have the early registration bill validated by the deadline date, the student will automatically lose those classes chosen during early registration. The student must then register again during the regular registration period.

Early registration begins approximately one to two months prior to the time of regular registration. Exact information may be secured from the Counseling Center. Participation in early registration at the earliest possible time is advantageous by helping students secure the courses they want.

Auditing

Permission to audit a course may be granted by the Dean of Admissions to students who are eligible for admission to the college and who already have received credit for the course. Auditing students are not required to meet course prerequisites listed in the catalog.

Students auditing a course may not under any circumstances claim credit for the course. A student who is registered for a course may not change from audit to credit or credit to audit status in the course after the twelfth class day during long terms or fourth day during a summer term. Charges for auditing a course are the same as for regular registration.

Class Membership

The only way to become an official member of a class at Odessa College is by following the established procedure for registering and paying tuition and fees. No person is an official student until all registration requirements have been satisfied and all charges have been paid in full. Installment payment of tuition and fees is not permitted.

Veterans' Affairs

Odessa College courses are approved for the training of veterans under public law which makes veterans eligible for educational assistance from the Veterans Administration. A veterans' counselor at the college assists in any matter pertaining to the relationship of students with the United States Veterans Administration and Odessa College. Each veteran, upon enrollment, should contact the Dean of Ad-

missions at Odessa College to obtain certification of enrollment to the Veterans Administration.

Change of Address

If a student changes his residence after registration, he must notify the Registrar's Office immediately. The student is held responsible for any communications mailed to him from the college to the last address which he has supplied the college. Having moved from a previous address does not relieve the student of the responsibility of requests made to him through correspondence.

Residence Status for Tuition Purposes

It's the student's responsibility when registering to use the proper residence classification. If there is any question as to right of classification as a resident of Texas or the Odessa College District, it is the student's obligation, prior to or at the time of registration, to raise the question with the administrative officials of the institution in which he or she is registering.

Every student who is classified as a resident student but who becomes a nonresident at any time by virtue of a change of legal residence by the student's own action or by the person controlling the student's residence is required to notify immediately the proper Odessa College administrative officials.

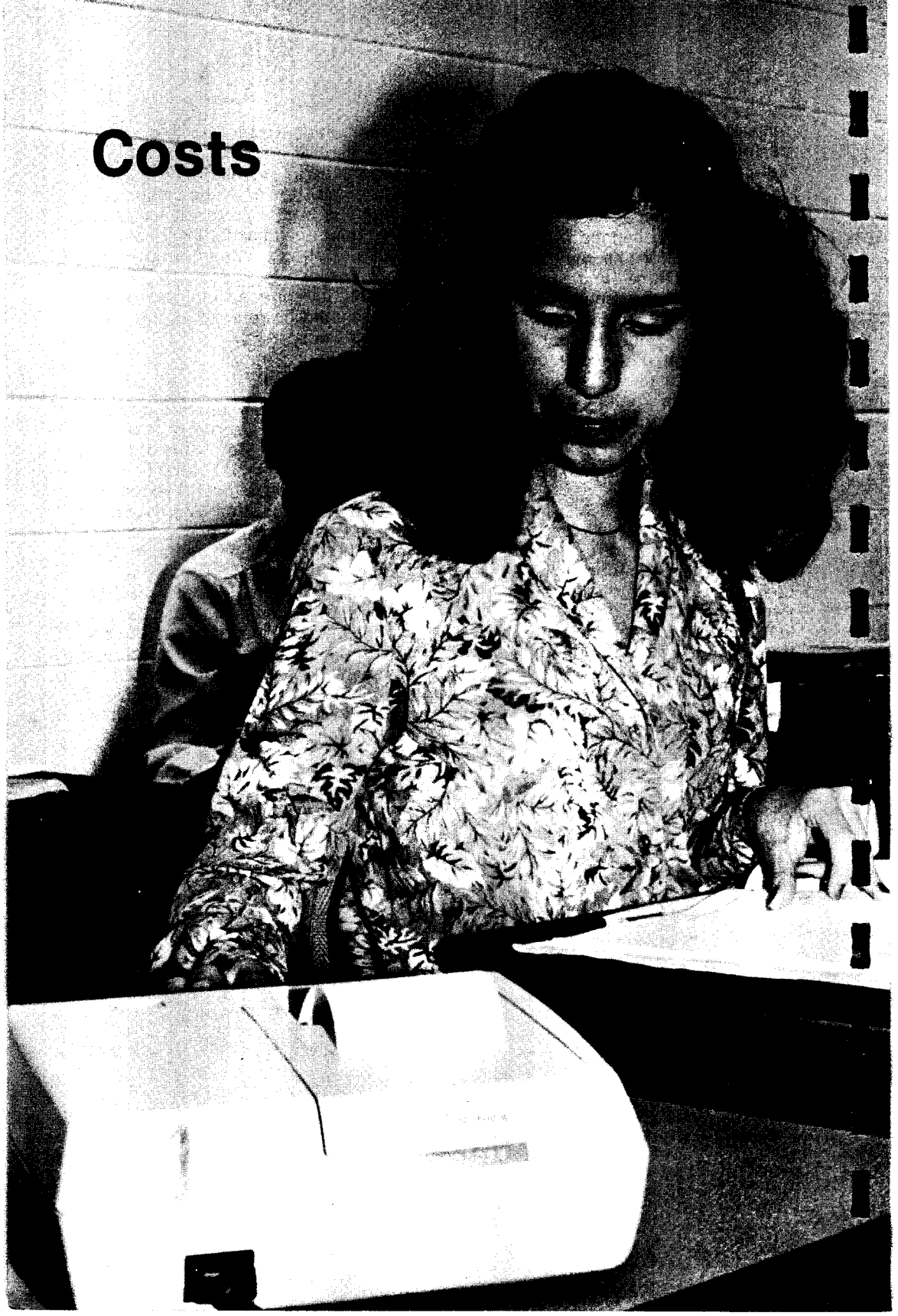
Questions concerning residence status should be referred to the Dean of Admissions.

Equal Opportunity

Odessa College is committed to the basic right of all people to have an equal opportunity for education or employment at this institution. Every effort will be made by the board of trustees, administration, and the faculty to defend this right and vigorously seek to promote its implementation in all areas of the college.

Odessa College will admit as students any persons who can benefit from the instructional program offered. In addition, it will strive to meet the post-secondary educational needs of its students by the restructuring of new programs, where such programs will be of benefit to students.

Costs



Financial Information

Tuition and Fees*

Semester Hours	District Resident	Out of District	In District Nursing	Out of District Nursing	Out of State	Foreign Students
1	32.00	42.00	27.00	36.00	42.00	47.00
2	39.00	50.00	33.00	44.00	64.00	94.00
3	46.00	58.00	39.00	52.00	86.00	141.00
4	53.00	66.00	45.00	60.00	108.00	188.00
5	60.00	74.00	51.00	68.00	130.00	235.00
6	67.00	82.00	57.00	76.00	152.00	282.00
7	74.00	90.00	63.00	84.00	174.00	329.00
8	81.00	98.00	69.00	92.00	196.00	376.00
9	88.00	106.00	75.00	100.00	218.00	423.00
10	95.00	114.00	81.00	108.00	240.00	470.00
11	102.00	122.00	87.00	116.00	262.00	517.00
12	109.00	130.00	93.00	124.00	284.00	564.00
13	116.00	138.00	99.00	132.00	291.00	611.00
14	123.00	146.00	105.00	140.00	298.00	658.00
15	130.00	154.00	111.00	148.00	305.00	705.00
16	137.00	162.00	117.00	156.00	312.00	752.00
17	144.00	170.00	123.00	164.00	319.00	799.00
18	151.00	178.00	129.00	172.00	326.00	846.00
19	158.00	186.00	135.00	180.00	333.00	893.00
20	165.00	194.00	141.00	188.00	340.00	940.00
21	172.00	202.00	147.00	196.00	347.00	987.00

*Tuition, General Use Fees, Activity Fee, and other fees.
All tuition and fees are due in full at the time of registration. No student may be enrolled in classes until all obligations are paid in full. All tuition and fees are subject to change without notice.

The student is responsible for registering under the correct residency classification. If there is any question regarding status and classification concerning Texas or college district residency, clarification must be received prior to the time of his enrollment in Odessa College.

Deposits and Special Fees

Course Fees and Deposits

Applied Music (½ hr.) 20.00
Applied Music (1 hr.) 35.00
Art Metals and Jewelry 10.00
Auto Mechanics 15.00
Biology 10.00
Building Trades 15.00
Business Machines 10.00
Ceramics 25.00
Chemistry 10.00
Child Development 10.00
Diesel Mechanics 15.00
Earth Science 5.00
Electricity/Electronics 15.00
Electronic Data Processing & Equipment Rental 15.00
Emergency Medical Technology (1402, 2801, 2802) 10.00
Foreign Language (1411 and 1412) 5.00
Geology 5.00
Industrial Instrumentation 15.00
Machine Shop & Equipment Rental .. 30.00
Medical Lab Technology (1211, 1212, 2211, 2212) 15.00
Nursing (1801) 5.00
Photography 10.00
Physical Education (Per Activity Course) 5.00
Physical Education (Camping) 30.00
Physics 5.00
Radio Broadcasting 10.00
Reading (Per Semester Hour) 2.00
Refrigeration and Air Conditioning ... 15.00
Sculpture 15.00

Shorthand	10.00
Television	10.00
Typewriting	10.00
Welding and Equipment Rental	65.00

Miscellaneous Fees

Examination, Advanced Standing	20.00
Examination, Make-up	5.00
General Deposit (Refundable)	10.00
Late Registration	5.00
*Student Liability Insurance	8.50
Testing Fee	2.00
Transcript (first copy free)	1.00
Vehicle Registration, Regular/Semester	3.00
Vehicle Registration, Short Term	1.00

*Student liability insurance or proof of comparable coverage is required for students enrolled in Child Development, Radiologic Technology, Respiratory Therapy, Medical Technology, Nursing, and Emergency Medical Technology.

Refund Policy

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

Dropped Courses. No refunds will be given when a student drops courses unless the dropped course(s) constitute a complete withdrawal from the college. A student may, however, drop and add comparable courses without charge, as long as the changes are processed at the same time.

Withdrawal from the College. When a student drops all courses, that process is termed withdrawal. If a withdrawal occurs prior to the first day of classes, the college will refund all tuition and fees, less a $15.00 processing charge. After classes have started, tuition charges only will be refunded on the following basis:

Fall and Spring Semester Length Courses

- During the first week of classes ..... 80 percent
- During the second week of classes ..... 70 percent
- During the third week of classes ..... 50 percent
- During the fourth week of classes ..... 25 percent
- After fourth week of classes ..... None

Summer, Midwinter, Flexible Entry and other credit courses less than semester length

- During the first class day .... 90 percent
- During the second class day 70 percent
- During the third class day ... 50 percent
- After the third class day ..... None

Note: Class day means the day the session is designated to begin and each consecutive school day thereafter.

To have a refund authorized, a student must present a completed withdrawal request form to the business office. Refer to the section in the catalog or Student Handbook on "Withdrawal" for procedures.

Extension Courses. Students enrolled in extension classes may be charged an additional fee, depending upon the course and the center in which the class is held.

Returned Check Policy. Checks for tuition and fees returned by the bank for any reason constitutes the student's automatic withdrawal from all classes, unless the tuition and fees are paid within 10 days of the date notification is mailed to the student. Payment must be made in cash, cashier check, or money order, plus the service charge on the check. The returned check fee is $5 per check.

Financial Aid

Odessa College provides financial assistance to students who have money problems. Scholarships and grants, campus work, and short-term loans are available to meet students' needs. More than one-half million dollars are disbursed annually through financial aid programs. Students who have special skills and abilities also are awarded scholarships and employment in work programs.

The ACT Family Financial Statement is required to establish eligibility for need-based programs. Applications must be submitted for each academic year for which the student requests financial aid. The application forms are available in high school counselors' offices and in the Odessa College Financial Aid Office. Students must make satisfactory academic progress to continue receiving financial assistance.

Frequently students receive awards from more than one of the aid programs described below in order to meet the college budget.

The Basic Educational Opportunity Grant (BEOG) is a grant made directly to students by the federal government. Awards at Odessa College range from $200 to approximately $1,000. All undergraduate students are eligible to apply and may do so by submitting the ACT Family Financial Statement. Eligibility can be maintained for a total of eight semesters by applying annually.

The Supplementary Educational Opportunity Grant (SEOG) is awarded to

students whose need is exceptionally large. The SEOG supplements other aid received by the student and is granted after application and personal consultation. Supplementary Educational Grants vary from $200 to $1,500 depending on the student's need. Awards cannot exceed one-half of total financial aid offered to a student.

The College Work-Study Program provides on-campus employment for students who can establish eligibility. Wages meet and sometime exceed the minimum wage requirements. Applications are accepted throughout the year for work-study positions.

The Nursing Student Scholarship and Loan Programs are administered at Odessa College for nursing students who must have financial support to attend college. Scholarships are granted for school-related needs; loans cannot exceed $2,500 annually.

The Law Enforcement Education Program (LEEP) is awarded to men and women who are employed full-time in law enforcement or criminal justice careers. The grant provides tuition and fees for courses required or allowed as electives on the student's degree plan. Applications for the program can be obtained in the Financial Aid Office or from the Director of the Law Enforcement program at Odessa College.

Federally Insured Loans are sometimes available to students from their local banks or credit unions. If a student can provide a lender, Odessa College will assist the student in completing his application and will disburse the warrant at the request of the lender.

The Texas Public Education Grant (TPEG) is awarded for tuition and other school-related costs. Students whose ACT reveals a need may apply for this grant.

The Texas Public Education-State Student Incentive Grant (TPE-SSIG) is for exceptionally needy students who, without this grant, would very likely be unable to attend college. The award is made annually or by semesters to students upon determination of need.

Valedictorians are awarded tuition scholarships if application is made the first semester after high school graduation.

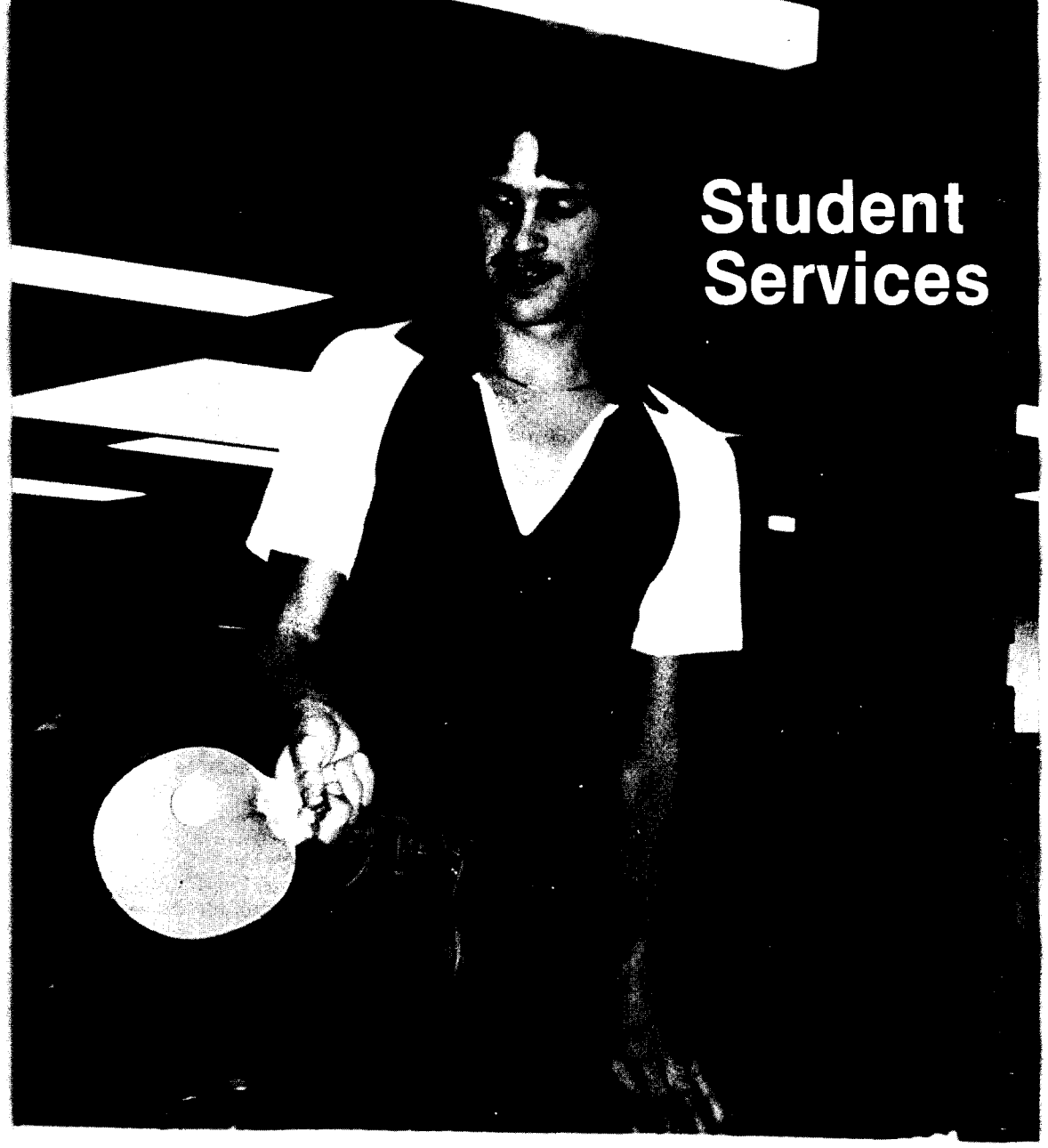
Institutional Scholarships are awarded to recognize student achievement. The President's Outstanding Student Scholarship is awarded to students for high academic achievement. Both entering freshmen and sophomores are eligible to apply for this award. The Odessa College Career Advancement Scholarship recognizes career-oriented students who receive recommendations from their high school counselors. Odessa College also participates in the Permian Honor Scholarship Program and each year enrolls several recipients of this 4-year award.

Many organizations and individuals provide scholarships for students to attend Odessa College. These vary in size, frequently covering tuition, fees, and books.

Institutional scholarships are awarded primarily for excellence in sports and in fine arts activities. Students wishing to receive such an award should apply to the coach of basketball, golf, gymnastics, track, or tennis, and to the instructor of art, theatre, journalism, music, and speech.

While most scholarship programs have no deadlines, early application is advantageous. Applications for financial aid at Odessa College may be obtained by visiting or writing Director of Financial Aid, Student Union Building, Odessa College, 201 W. University Blvd., Odessa, Texas 79762.

Vocational Rehabilitation — The Texas Rehabilitation Commission offers assistance for tuition and nonrefundable fees to students who have certain disabling conditions. Application should be made at the Texas Rehabilitation Commission, Odessa District Office, First National Bank Building, Suite 414, Odessa, Texas 79760.


Student
Services

Student Development

Odessa College encourages the growth and awareness of self and others through a comprehensive student development program. The college tries to create a climate that will allow every student an opportunity to enhance his perception of himself and his worth, while increasing his ability to cope within a changing society. The college hopes to provide every student an opportunity to examine thoroughly his potential and to offer opportunities for realizing that potential through the learning experiences of the college.

Counseling

The purpose of counseling at Odessa College is to help students gain self-direction and to become more capable of creative and effective living. Counselors assist students toward achieving greater self-awareness by offering them the following:

- Aptitude, interest, and personality testing for self-assessment;
- Intensive self-examination and career exploration;
- Personal development classes which help students to set goals, to gain self-understanding, and to clarify personal and career values;
- Counseling to resolve personal and social problems that interfere with success at Odessa College;
- Counseling regarding the student's educational plan at Odessa College; and information about transferring to other colleges and universities.

The Counseling Center is located on the second floor of the Student Union Building. During the regular semester, it is open from 8 a.m. to 8 p.m. Mondays through Thursdays and from 8 a.m. to 5 p.m. on Fridays.

All students are encouraged to see a counselor prior to enrolling each semester.

GED (General Education Development) Test

Odessa College is a GED testing center. Any person interested in taking the GED exam should contact the Counseling Center.

Educational Plan

All students are encouraged to complete an educational plan in the Counseling Center. An educational plan contains the courses which will help a student accomplish his specific educational goals. Proper educational planning can greatly enhance a student's success potential.

Housing and Food

Dormitory facilities are available on the Odessa College campus. Students desiring housing on campus should apply well in advance of the registration date. The Dean of Student Development keeps a file on available off-campus housing.

Parker-Downs Hall is open to any Odessa College student on a first-come, first-served reservation basis. Separate facilities for men and women are provided. Rooms are arranged in suites. Coin-operated laundry machines, pay phones, kitchen facilities, and lounges with cable television are accessible to all residents. A friendly atmosphere conducive to academic and social learning is encouraged by a professional staff. Additional information can be obtained by contacting:

Odessa College
Dormitory Supervisor
224 W. 23rd
Odessa, Texas 79761

The college cafeteria and a snack bar are located in the Student Union building and are open five days per week. Meals may be purchased individually or on a meal plan. A number of restaurants are located near the campus for the convenience of Odessa College students.

Parking

It is necessary for all vehicles on campus to display a parking permit. Permits, and copies of parking regulations, may be obtained in the office of Special Services from 8 a.m. to 5 p.m., Mondays through Fridays.

Health Services

Health Services, a student-oriented program of preventive medicine and health education, can be found in Room 101 of the Student Union Building. The director, a registered nurse, is on campus full-time to help students with their health concerns. Throughout the year, specialized programs such as "Alcohol Awareness Days," blood pressure clinics, blood drives and family planning workshops are presented.

Health Services seeks to establish sound health practices that will enhance each person's growth and development while at Odessa College and in the future.

Student Life

An active student life program is encouraged at Odessa College and the impact reaches almost every student.

The college philosophy is that classroom learning is only part of a student's education. Almost every student feels some need to learn more about himself. The opportunity for a student to grow as an individual is made possible through social and personal experiences, as well as through academic pursuits. Student activities contribute to personal development through educational and social programming and through student organizations.

The interactions of students with each other and with faculty on an informal basis can provide insights and understanding for a student about society and can enrich the quality of his life. An organized program of related activities is provided under the guidance of the director of student activities, who sponsors the Student Congress.

A Student Handbook is prepared annually to help explain the many opportunities available to students at the college. Detailed descriptions and explanations of individual organizations and various activities are outlined in the Student Handbook.

Student Activities

Student Activities is considered an integral part of the total education concept at Odessa College. A director of student activities, in conjunction with a director of intramurals, works with students to coordinate and plan social, cultural, athletic and educational programs.

The office operates as part of the student development team and plans activities that will assist in the personal development of each student. An organized program of related activities, as well as informal contact among students and faculty, provides an opportunity for students to gain insights and understanding about themselves, their society and their quality of life.

In addition to student clubs and organizations, student programs include fine arts events, lunch time concerts, videotape series, game room facilities, lectures, emphasis weeks, and intramural contests.

Opportunities for students to participate in student activities include:

Clubs and Organizations — More than 12 student organizations are active on campus. Many of these groups are service organizations which are related to academic pursuits, such as nursing or data processing, while others are honoraries or interest groups. A list of currently active student organizations may be found in the Student Handbook.

Inter-Club Council — All recognized student organizations are members of the Inter-Club Council. Each organization is entitled to at least one representative at each regularly scheduled meeting. The Inter-Club Council is under the direction of the Student Activities Office.

Student Congress — The Student Congress at Odessa College is the voice of the students. As a lobbying group, it plays an important role in influencing the directions of the college on many issues, in addition to sponsoring projects for the welfare of the student body. Students may use the Student Congress to express opinions about the operation of the college based on individual needs. Students enrolled at Odessa College are encouraged to run for office as well as to

vote for the 13 positions. Requirements for Congress positions and campaigning are outlined in the Student Handbook.

Intramurals

"Everyone in a sport . . . a sport for everyone" is the intramurals' motto at Odessa College. Students are encouraged to get involved and participate in intramural sports activities of their choice.

Intramural sports offer an opportunity for each person to participate in or serve in leadership positions in his favorite recreational sport during his leisure time or in a scheduled competitive tournament. Further information is available in the Intramurals Office or in the Student Handbook.

Student Publications — The college has a student newspaper, "The Roundup." The publication is written and edited by students in the journalism classes. A faculty sponsor aids the students in production of the publication, which not only provides learning opportunities for mass communications students, but also serves as a medium through which students can express their creativity, ideas, opinions, and philosophies.

Student Theatre — An active drama program at Odessa College allows students to stage several productions each school year in the college theatre. The theatrical productions are open to the public and afford learning situations for students, while providing community entertainment.

Forensics — Odessa College forensics teams are nationally recognized. During the past 13 years, the forensics teams have placed among the top ten in national tournaments, which have included not only teams from community colleges, but from senior colleges and universities as well.

Choir and Band — Odessa College's A Cappella Choir and Madrigal Singers are well-known throughout the state for their musical abilities. The college also has an active band, "The OC Jazz Band," that performs regularly at many events.

Campus Radio Station — The college-owned and operated FM radio station, KOCV, is an educational noncommercial station. The radio station is operated by students, under the direction of a faculty member.

Art Shows — In conjunction with the art department, students have the opportunity to display and see art work each year through student and traveling art exhibits.

Athletics

Odessa College has earned a national reputation for its outstanding athletic program. More than 150 of the college's athletes have won National Junior College All-American honors in basketball, gymnastics, golf, tennis, track, and baseball.

Currently the athletic program includes teams in men's and women's gymnastics, tennis and basketball, as well as men's teams in golf and track.

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 some of the athletic teams at the college compete in national tournaments every school year.

Some of the honors and titles won by Odessa College athletic teams include:

Basketball — The Wranglers have had an active basketball program since 1952. The cagers were runners-up in the Region V Tournament in 1958, and co-champions in the Western Junior College Athletic Conference in 1970. The Odessa College basketball team has played in the National Regional Tournament 23 of the last 29 years.

Odessa College instituted a women's basketball program in the fall of 1976. The team won the co-championship of the Western Junior College Athletic Conference in 1979.

Golf — The first National Junior College Golf Championship ever conducted was hosted by Odessa College in 1959. Odessa College won the national title in 1959, 1960, 1961, 1962, 1963 and 1965. The Wranglers have captured the Western Junior College Athletic Conference title 15 of the last

21 years. OC has had 20 All Americans in golf.

The men's teams won the flight three national singles title and the national team title in 1978. The men also won the national doubles and team championships in 1968 and in 1979, and the national doubles and team runnerup honors in 1969 and 1974. Men's teams also won the national team, singles, and doubles championships in 1975 and 1976.

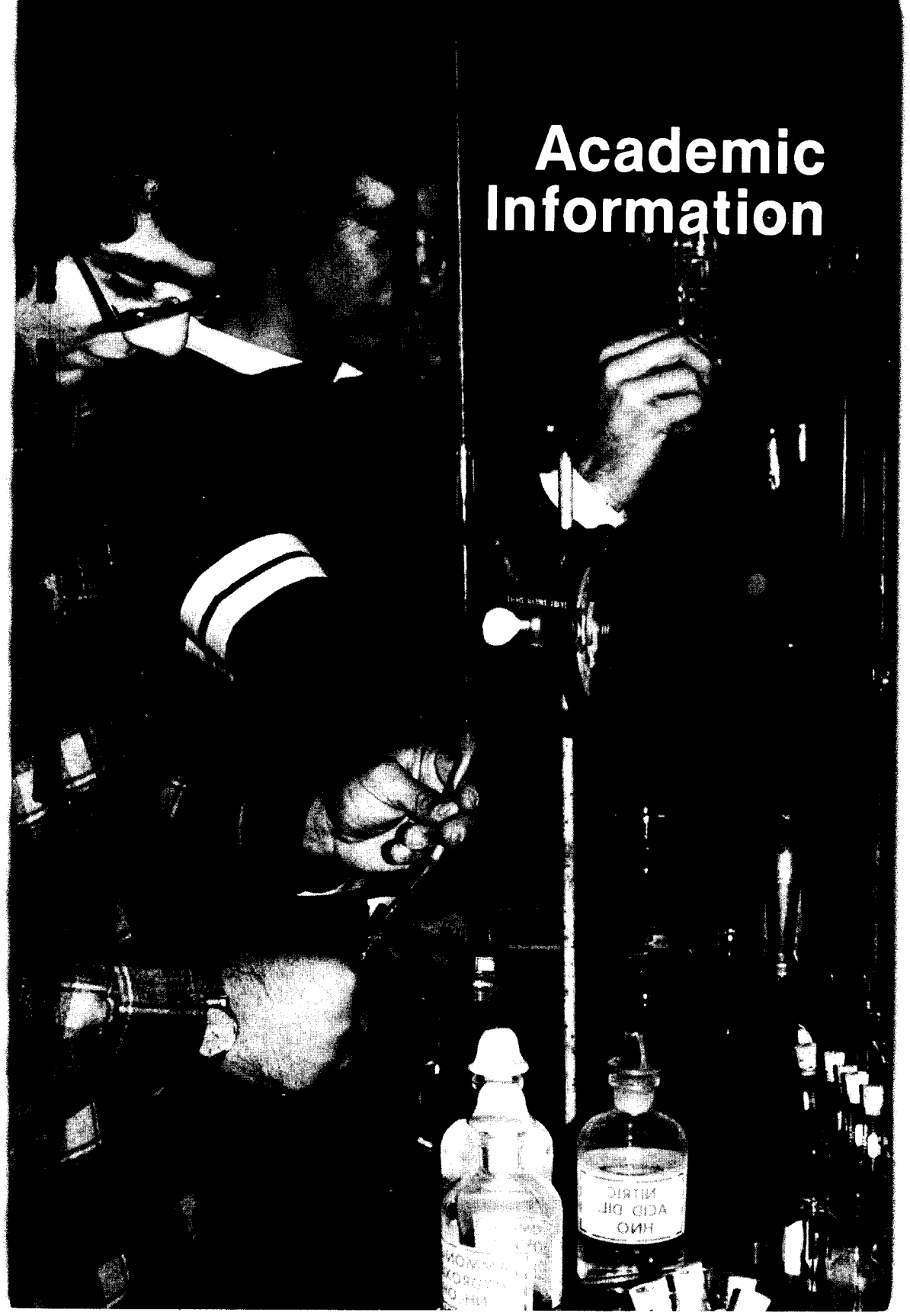
Gymnastics — Since being organized in 1965, the Odessa College gymnastics team has won the National Junior College title eight times, including 1979. More than 90 Odessa College gymnasts have been named National Junior College All Americans since 1969. Two former Odessa College gymnasts have been selected to be members of international teams.

A women's gymnastics program was started at OC in 1978-79 and the team won the national title its first year.

Tennis — Odessa College tennis teams have consistently won titles in both junior and senior college competition. In the spring of 1978 and 1979, both the men's and women's teams won the NJCAA national championships, a feat never before accomplished by a junior college. More than 30 members of OC tennis teams have been named All Americans. OC women's teams won the national singles and team championships in 1967, 1977, and 1978, and the national doubles and team championship in 1970 and 1977 and 1979, as well as being runnerup for the team title in 1972 and 1975. In 1977 and 1978 an OC woman netter gained United States Tennis Association All-American honors.

The men's teams won the flight three national singles title and the national team title in 1978. The men also won the national doubles and team championships in 1968 and in 1979, and the national doubles and team runnerup honors in 1969 and 1974. Men's teams also won the national team, singles, and doubles championships in 1975 and 1976.

Track — More than 16 team championships have been won by the tracksters the past ten years. In 1971, the Odessa College track team placed second at the National Junior College Championships and won third in 1975. In 1979 the tracksters won the conference, regional, and state track championships. More than 40 members of the Odessa College track team have been named to the NJCAA All-American track team since 1965. The coach is a former world record holder in the 440 and 880 relay and was representative of the United States team in Moscow in 1958. He was coach of the U.S. track team at the 1979 World University Games.


Academic
Information

Academic Guidelines

The primary goal at Odessa College is for every student to receive the best education possible. Whether the student intends to transfer to another institution after the completion of his studies at Odessa College or whether he intends to put his learning to immediate use in the world of work, the student is assured that he will obtain quality education at Odessa College. He will receive an education that will be meaningful in all areas of his life.

Academic excellence is the focal point of the college's educational programs. Odessa College has gained national recognition for its quality instruction and outstanding faculty. Students transferring from Odessa College to other institutions build solid foundations for their educational pursuits and frequently do as well or better than those who go to senior colleges or universities from the freshman year.

Odessa College students who have completed occupational-technical programs also have exhibited outstanding proficiency with on-the-job skills. The college works closely with advisory committees from business and industry to assure that students in occupational-technical programs learn the exact skills they will need on the job. As a result, students who complete these programs obtain practical educations combined with professional training in their respective skills.

The academic programs are reinforced by strong support services. A Learning Resources Center, which houses the library, learnng center and instructional development department, provides rich resources to supplement classroom instruction. Faculty also use the learning center and instructional media program to enrich instruction. A variety of proven teaching methods is utilized.

To make the college even more accessible, several departments offer open-entry classes. These allow students to enroll in a course at almost any time during a long semester, rather than wait until a regular term begins. In addition, innovative instructional approaches are being used that allow a student to complete a three-semester-hour course in some subjects in only eight weeks. The college constantly is searching for ways to better serve students without compromising instructional quality.

Each student's academic needs are considered important at Odessa College. Programs are planned for students who need basic instruction to raise their proficiency in a subject area, as well as for students who excel. The college has such unique facilities as the writing and reading laboratories, computer-assisted instruction center, and an audio-tutorial biology laboratory. Personal development courses also are available. Another important factor is a concerned faculty who want to help students succeed.

Odessa College believes there should be no compromise with quality instruction and academic excellence.

Course Load

The normal course load that a full-time student may carry during a regular semester will vary with the courses in which he is enrolled. A student is classified as a full-time student when enrolled in twelve or more semester hours, but students will normally enroll in fifteen to eighteen hours each semester as outlined in their course of study. Students are not permitted to take more than five courses of three or more semester hours during a semester without written approval from the Dean of Admissions.

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 session is fourteen 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 a student enrolled in evening classes depends on the individual circumstances and ability of the student. The normal load for an evening student who

has full-time employment is six semester hours or two courses. The maximum load is nine semester hours or three courses.

Students who are employed while attending classes or who have experienced previous difficulty in academic work should plan course loads in such a way that ample time will be given to all of these demands. Usually, two hours of student preparation are necessary for each class-hour of time. Therefore, an average student should plan on investing nine hours of his time for each three-semester-hour course in which he enrolls. Students are encouraged to consult a college counselor to determine the best program possible.

Student Classification

A student who has completed 24 semester hours or fewer will be classified as a freshman student. A student with more than 24 hours will be classified as a sophomore student.

Students are classified as full-time if enrolled in 12 or more semester hours, and part-time if enrolled in fewer than 12 semester hours.

Grades

Grading is a measure of the student's ability to master specific objectives within a given course. A grade is based upon his level of performance in examinations, term papers, reports, class discussion, and the final course examination or project.

Grade	Equated	Grade Points Per Semester Hour
A	Excellent	4
B	Above average	3
C	Average	2
D	Passing, but poor	1
I	Incomplete	0
F	Failure	0
—	Audit (Not Taken for Credit)	0
W	Official Withdrawal before the end of the first twelve weeks	0
WF	Withdrawal while failing during seventh through twelfth week	0
CR	Advanced Standing (credit by examination)	0

It is the obligation of the student to know his standing and rating in college classes during the semester and to secure these ratings before registering for the next semester. He is expected at all times to be familiar with his scholastic status. The advisors and counselors will confer with students concerning unsatisfactory work during and at the end of the semester. The object of such conferences will be to determine the cause of unsatisfactory work, to advise the student for improvement, and to offer any assistance which the college and faculty and staff of the college can give the student.

Grade Point Average and Semester Hours

Grade Point Averages are computed on two bases: the Semester Grade Point Average and the Cumulative Grade Point Average. The Grade Point Average (G.P.A.) for any semester is determined by multiplying the number of semester hours for each course by the number of grade points corresponding to the final grade for the course. The total of all such products for the semester is then divided by the number of semester hours attempted for that period. Incomplete grades are included in calculations of grade averages when the final grades have been recorded; the grades of "W" and "WF" are not included.

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 terms.

Scholastic Standards

To remain in good academic standing, a student must maintain a minimum 1.5 grade point average. If it is evident from a student's record that he is failing to maintain satisfactory progress he will be placed on scholastic probation. The student will then be allowed to continue his college program on a conditional basis until his academic progress warrants removal from this status.

It is the responsibility of each student to be aware of his scholastic status at all times by being familiar with the ten points listed below.

Notification will not be issued when a student is on scholastic probation. Students on scholastic suspension are not eligible to register.

1. A student enrolled in nine or more hours per semester must pass a minimum of nine hours with at least a 1.5 grade point average, for all courses attempted that semester.

2. A student enrolled in fewer than nine semester hours must accumulate a grade point average of at least 1.5 during that semester.

3. Students on scholastic probation who are enrolled in nine or more semester hours, and who pass nine semester hours with a grade point average of at least 1.5, for all courses attempted that semester, will be removed from scholastic probation.

4. Students on probation who enroll in fewer than nine hours will remain on probation until they satisfy the conditions of rule 3 above.

5. In order to be removed from scholastic probation, students who were originally enrolled in fewer than nine hours must pass the same number of hours for which they were enrolled during the semester they were placed on probation and must earn a grade point average of 1.5.

6. Students on suspension who enroll in summer school and who earn an average grade of "B" in two courses (either 3-hour or 4-hour courses), or who earn three grades of "C" in 3-hour or 4-hour courses, will be permitted to enroll in the next semester on "continued scholastic probation."

7. Students placed on scholastic suspension are suspended for one long term, at the end of which time they must apply to the Dean of Admissions for readmission to the college.

8. The grade of "W" will be given for any course if the student withdraws from the course before the end of the sixth week. A "W" also will be given if a student withdraws before the end of the twelfth week and is passing.

9. After the twelfth week, the grade of "F" will be given for any withdrawals.

10. All grades except the grades of "W" and "WP" are utilized in calculating the student's cumulative grade-point average.

11. When a student repeats a course, the hours and grade points for the highest grade earned will be used in computing the grade-point average for the degree. All work attempted will be computed for the student's cumulative grade-point average.

Meeting the required standards during the second semester will remove the student from probationary status. However, if a student fails to meet the scholastic standards during the semester in which he is placed on probation, he is automatically dropped from the college for a period of one semester. If he is placed on probationary status a second semester for failure to meet scholastic standards, after being readmitted to the college, he will be automatically dropped for a period of two semesters and must confer with the Dean of Admissions in order to be readmitted.

Readmission to and/or continued probation in college does not guarantee admission to or continuance in a specific program.

Incompletes

The conditional grade "I" may not be given unless the student has made a passing grade in all work which has already been completed. It is not a substitute for a failing grade. The deferring of the work required must be approved by the instructor. If the instructor does not approve granting an extension of time, a complete grade will be given the student at the end of the semester. The incomplete work must be made up in the semester immediately following that in which the "I" was given. Unless the grade has been reported by the instructor by the close of the semester immediately following that in which the symbol "I" was given, the registrar will change the grade of "I" to the grade of "F". Students receiving an incomplete grade during the summer session will have until the end of the fall semester to remove the grade.

Students are not routinely notified by the college when a grade change

has been processed. The student should contact the instructor for this information, or he should request a new copy of his college transcript.

Withdrawal

Students who leave Odessa College before the close of a semester or before the end of a class for which they are registered must follow official withdrawal procedures so that all records are left in proper order. The withdrawal procedure is initiated by the student in the Registrar's Office. Students are expected to appear in person to withdraw unless there are extenuating circumstances. Withdrawals by persons other than the student in question will be verified for the student's protection.

Grades of "W" will be assigned to all students who withdraw during the first six weeks of classes during any long semester and before a specified date for summer and mid-winter classes. After the sixth week, students who withdraw will be responsible for contacting their instructors as a routine part of the withdrawal process. The instructor will assign a grade of "W" or "WF" and sign the withdrawal form. The student will then return the form to the registrar's office. Grades of "W" or "WF" are assigned through the twelfth week of classes in the long semesters. Students who withdraw after that time will be assigned a grade of "F".

The college reserves the right to withdraw a student from any one or all of his classes, if, in the judgment of the college officials, such withdrawal is in the best interest of the student or the student body-at-large.

Class Attendance

Students are expected to regularly attend all classes in which they are enrolled. Class attendance is the responsibility of the student. It is also the responsibility of the student to consult with his instructors when he is absent from a class.

Instructors will keep records of absences and when, in the opinion of the instructor, a student is excessively absent, notification will be made to the Counseling Center of the dates and number of absences. The Counseling Center will inform the student by a warning letter that his lack of attendance is endangering his academic progress. If the absences continue, the instructor may recommend to the director of counseling that the student be withdrawn from the class in question with a grade of "W" being given. If the number of absences is excessive and if the student is also failing, the instructor may recommend in writing to the director of counseling that the student be withdrawn from the class with a failing grade. The director of counseling notifies the student in writing whenever the student is withdrawn from a class under the above circumstances.

Students who have not attended class by the official reporting day for any given semester and have not notified the instructor or the registrar regarding the circumstances of their non-attendance, will automatically be dropped from class. No notation will be made on the student's permanent record of ever having registered for that class. No refunds will be made for students dropped in this manner.

Schedule Changes

After the official registration date, students may change their schedule by completing proper forms in the Office of the Registrar.

Advanced Standing and Credit By Examination

Odessa College will accept up to fifteen hours of advanced standing credit awarded by either the College-Level Program (CLEP) Subject Examinations or by approved Odessa College departmental examinations.

Odessa College is an Open Testing Center for CLEP and will administer these examinations to anyone making application, subject only to those restrictions established by the Educational Testing Service and the College Entrance Examination Board. Department examinations are administered in those areas in which CLEP examinations are available.

Specific information on advanced standing applications for testing may be obtained in the Counseling Center in the Student Union Building.

The examinee should check with the senior institution of his choice concerning the acceptance of credit earned by advanced standing examinations. Transcripts will record credit that is given by examination but will not list a specific grade. Hours earned by examination will not be included in computing grade point average, scholastic hours, residence requirements for graduation, or credit load requirements for Social Security, or veterans' benefits.

Early Admissions Program

The Early Admissions Program enables high school seniors to enroll concurrently in Odessa College while completing their high school requirements. Students in the program can profitably accelerate their progress in college and achieve their educational goals in less time and with less expenses than in the traditional program.

To be eligible for the program the high school senior must be within four units or twelve quarter credits of graduation and have the recommendation of his high school counselor, his high school principal, and the approval of his parents. He then may enroll in the regular manner at Odessa College.

A student in the Early Admissions Program may enroll in as many as two courses each semester. He will be expected to adhere to all policies of the college, as well as those of his respective high school, while in the program.

College credit earned under the program is held in escrow until the student completes his high school requirements and furnishes the college with a high school transcript affirming that he has graduated. At that time all credit earned will be placed on his college permanent record.

Letters from most Texas colleges and universities accepting transfer credit of courses completed under the Early Admissions Program have been received by the director of counseling. Participating students also have been given approval by the University Interscholastic League to retain their eligibility in League activities.

Information on the Early Admissions Program can be obtained from the Odessa College Dean of Admissions or through participating high school counselors.

Honors

A student who is enrolled in twelve hours or more during the semester and makes a grade of "A" in all courses is listed on the college's Summa Cum Laude Honor Roll. A full-time student who makes no grade lower than "B" is listed on the college's Cum Laude Honor Roll.

Part-time and Summer Session students who are enrolled in two courses for a total of six semester hours or more and make a grade of "A" in all courses are listed on the Part-Time Student or Summer Session Summa Cum Laude Honor Roll. Part-Time and Summer Session students enrolled in two or more courses totaling six semester hours or more with no grade lower than "B" will be listed on the Part-Time Student or the Summer Session Cum Laude Honor Roll.

Transcript of Record

The transcript of record is an official copy of the student's permanent record. Copies will be supplied on written request. Students may instruct the Registrar's Office to mail official transcripts to colleges or universities to which the student may be applying, or to prospective employers, etc. The first copy of a transcript is provided at no cost to the student. A charge of one dollar will be made for all subsequent official copies.

To protect student records, Odessa College adheres to the conditions by which information about students can be released as set forth in The Family Educational Rights and Privacy Act of 1974, as amended.

Transfer of Credit

The counselors and advisors at Odessa College should be contacted before registration in order to provide

maximum assistance to the student in planning a program.

All courses taken at Odessa College transfer to all other institutions at face value. No grades made at the college can be lowered by any other college. However, courses taken that are not required for graduation at the senior college will not apply and therefore should not be taken at this college.

Senior colleges vary in recognition of a grade of "D" in a course. Some senior institutions accept grades of "D's" 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 entering Odessa College, or before if possible, the student should select the senior institution to which he desires to transfer after leaving OC. He should become familiar with the transfer requirements and then design a suitable course of study at Odessa College. OC counselors will assist students.

In consultation with the advisors from the senior college, applicability of grades and courses should be predetermined.

Generally speaking, senior colleges will not accept more than 66 semester credit hours in transfer. The student should avoid exceeding this number of hours. Senior colleges vary greatly in their practice regarding the allowance of credit for courses pursued at junior or community colleges.

No transcripts will be released by the college unless the student has cleared all of his records at the college.

Technical/Vocational Occupational Programs

Odessa College offers a wide variety of technical-occupational programs designed to enable a student to enter his chosen career field as a skilled employee after one or two years of college work.

These programs are established only after studies verify that employment opportunities will exist at the time the student completes his training. The community's manpower requirements are matched with the ambitions and goals of the student.

This realistic approach to occupational education is made possible by the excellent cooperation of local industry, business and public agencies which more and more are looking to the community colleges for skilled personnel.

Continuous liaison is maintained with prospective employers to assist in placement of graduates and to keep the training programs up-to-date with the current job requirements. Skills needed on the job are taught in these classes, by occupational-technical faculty who have many years working experience, as well as academic training.

Recommendations for adding new programs to the college offerings will be made periodically based on community studies which identify additional training needs that can be met by Odessa College.

Technical and vocational occupational courses carry college credit leading to an Associate in Applied Sciences Degree, a Certificate of Completion, or a Certificate of Technology.

Learning Resources Center

The Learning Resources Center is a focal point for the entire college as it assists students and faculty in attaining their educational goals. Resources and materials in various formats are selected, produced, organized, circulated, and maintained to satisfy curricular requirements, stimulate cultural awareness, and promote study and research.

Some 60,000 books in open stacks, reference books, and reserve materials are available in the LRC. Four hundred current periodicals, newspapers, and pamphlets, numerous college catalogs, clippings, and government documents are maintained to satisfy both educational and recreational needs. Additionally, the LRC houses a variety of mediated programs designed to enhance the instructional curriculum. Fully equipped study carrels encourage student use of recordings, tapes, slides, filmstrips, filmloops, and other types of audio-visual materials. On-line

computer terminals are available for students enrolled in any college courses which utilize computer-assisted instruction methods. A Career Center located in the LRC offers the student a current and factual collection of media, books and pamphlets on a wide variety of vocations, professions and career choices. These resources are available to acquaint interested individuals with the processes involved in career decision-making. Guidance in the use of the materials is coordinated through the college Counseling Services.

Research tours and subject seminars, stressing the use of the card catalog, the indexes, and the available reference materials, are conducted by members of the LRC staff. Also, the individual student may always seek personalized assistance from the professional resource personnel who staff the LRC.

Located within the LRC, the Department of Instructional Development works with the faculty and students to design and develop comprehensive instructional strategies and programs. These programs ensure that all Odessa College students are assisted and challenged through relevant learning experiences.

Developmental Studies

For those students who need extensive development of mathematics, writing, reading, and basic study skills, Odessa College offers a Developmental Studies program. A student may take basic English, basic mathematics, reading, and personal development in this program.

The courses are designed to help the student achieve the skills which may not have been gained before the student entered Odessa College. Prior to enrolling for courses in the Developmental Studies program, the student, using diagnostic tests which are offered through the counseling center, will be able to diagnose where he or she needs the most skill-building.

While enrolled in one or more of the program's courses, a student may request tutoring from other college students and professionals. All courses in the Developmental Studies program grant Odessa College credit ranging from two to three credit hours. If the student intends to transfer after attending OC, that student should check with the college or university which is his or her destination to determine whether or not the credit hours will transfer..

Evening Classes

Evening classes represent an integral part of the total educational program, offering courses comparable to those in the regular day program. Evening courses are offered primarily for individuals of the community who want to carry less than a full college course load, and a wide variety of courses is offered for both college credit and non-credit for those 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.

Summer Session

The summer session consists of two terms of five to six weeks each; classes are held both during the day and evening hours. Students may enroll in as many as seven semester hours in each six-week session. Credit earned in a course is equivalent to that offered in the same course during a regular semester. Information regarding the Summer Session can be obtained from the Counseling Center of Odessa College.

Adult and Continuing Education

OC offers a wide variety of community interest and short-term, non-credit courses for those who want to broaden their educational experience, but are not interested in obtaining college credit. These courses may range from a one-day workshop to a full nine-month program, but typically are of shorter duration than the regular semester.

Almost any course that is of public interest can be organized if twelve students ask to be enrolled, provided that a competent instructor and suitable facilities are available. There are no entrance requirement for continuing education courses, and any individual who can profit from the course may enroll.

A list of community service courses may be obtained from the Associate Dean of Adult and Continuing Education.

Community Recreation

Odessa College has developed a community recreation program, designed to serve area citizens of all ages, from children through senior citizens, with students grouped by age category. Included are special classes in tennis, gymnastics, exercise, aerobics, dance, jogging, and others. Persons enrolling sign up through the adult and continuing education program, which offers special interest courses to community residents on a noncredit, flexible-entry basis.

Midwinter Session

Odessa College offers a special short-term session to accommodate students who want to complete a course during the interim period between the regularly scheduled semesters. A nine or ten-day Midwinter Interim Session is held following the close of the Fall Semester and prior to the beginning of the Spring Semester. Students may complete a two or three-semester-hour course during this special session.

Adult Basic Education

Classes are offered to adults who have not completed their high school education. The classes range from level one instruction, during which adults learn to read and write, to classes that prepare adults to successfully complete the state-administered GED test. The classes are free and books are furnished. During a typical school year, enrollment in the adult basic education classes sponsored by Odessa College will be almost 2,000 students.

The five major subjects are math, English, social studies, natural science and literature. Morning, afternoon and evening classes are offered in numerous locations in Odessa, as well as on the Odessa College campus.

Odessa College sponsors adult basic education classes in Ector and other counties, including Andrews, Brewster, Culberson, Jeff Davis, Loving, Pecos, Presidio, Reeves, Terrell, Ward and Winkler.

Literacy classes, English as a second language and junior high level studies are available. Classes have open registration, are self-paced and have individualized instruction.

In addition to GED test preparation classes, OC sponsors a compentency-based program, in cooperation with public schools, to allow adults with less than high school educations opportunities to earn high school diplomas.

High school graduates who have a deficiency in any of the five major areas may apply at the adult basic education office for admission to one of the classes. Standardized tests will be administered and if the student functions at less than a twelfth grade level, free admission to the class is allowed for remedial work.

For more information on class locations and times call the Director of Adult Basic Education, at Odessa College, 915-337-5381, Ext. 300.

Extension Centers

Odessa College offers many of its regular classes at extension centers located in Pecos, Monahans, Andrews, Kermit and McCamey. Registration is conducted in each city during the week prior to registration on campus. The exact time and date for each registration is carried through local news media. Information about Extension Centers can be obtained in the office of the Dean of Student Development.

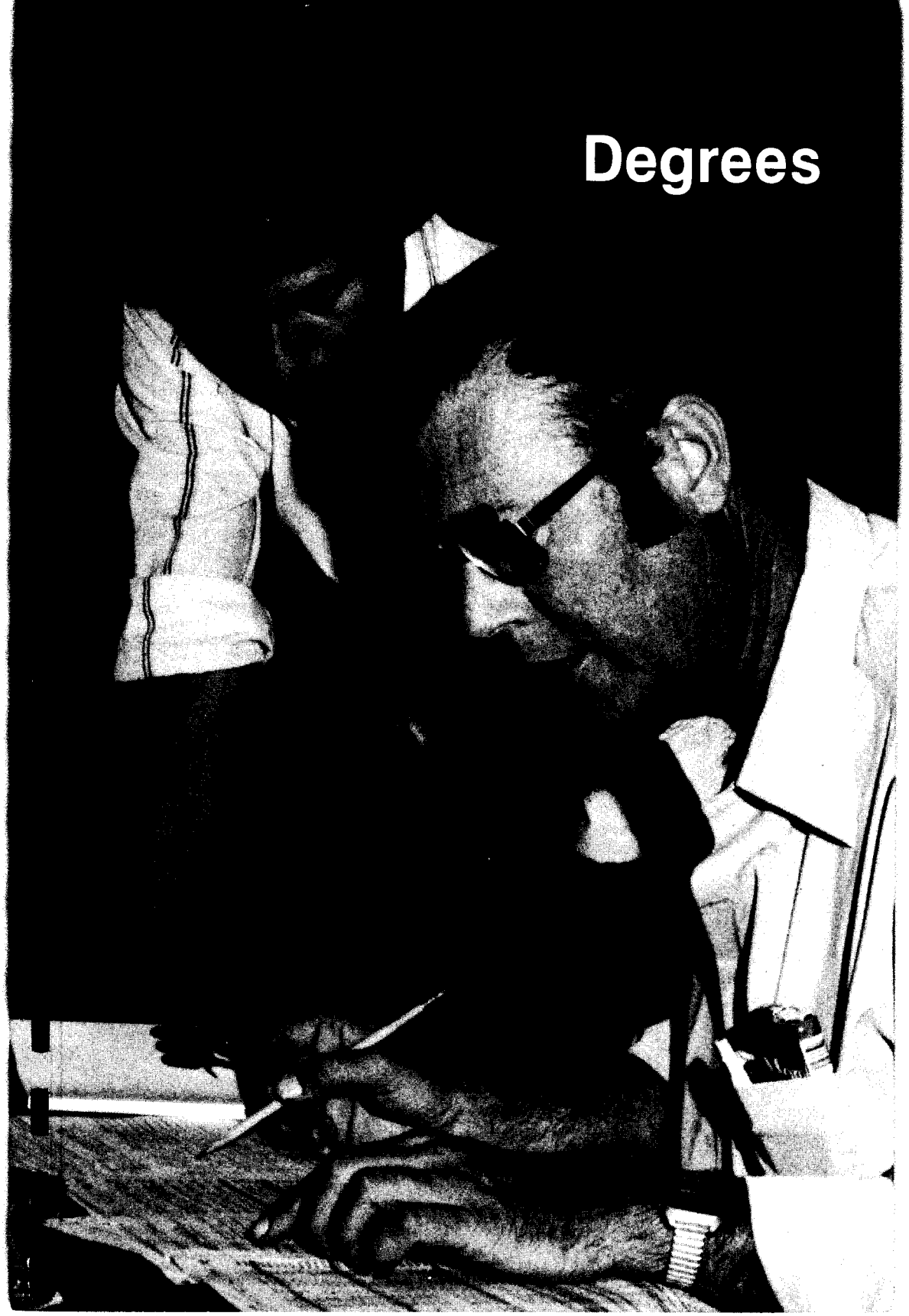
More Information

For information about Odessa College, admission procedures, instructional programs, and counseling services contact the Counseling Center in

the Student Union Building. The telephone number is 915-337-5381.

For admission to Odessa College, send application and transcripts to the Dean of Admissions, Odessa College, 201 W. University, Odessa, Texas 79762.

Degrees



Degree Requirements

Associate in Arts Degree

To quality for the Associate in Arts Degree (A.A.), the student must complete the following:

English	2 years, 12 semester hours
Foreign Language or Mathematics, or Science	1 year, 6-8 semester hours
Personal Development	Psy 1201
Government	Govt 2301 and 2302
History	Hist 2301 and 2302 (Hist 2303 may be substituted for either course)
Physical Education*	Four one-hour activity classes (except for approved substitutions)
Sophomore hours	18 or more, 12 of which must be taken at Odessa College

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" in work taken at Odessa College.
Twelve of the last 18 hours, prior to the degree being granted, must be done in residency.
Discharge of all financial obligations to Odessa College.

Associate in Science Degree

To qualify for the Associate in Science Degree (A.S.), the student must complete the following:

English	2 years, 12 semester hours
Personal Development	Psy 1201
Government	Govt 2301 and 2302
History	Hist 2301 and 2302 (Hist 2303 may be substituted for either course)
Mathematics	1 year, 6 semester hours
Physical Education*	Four one-hour activity classes (except for approved substitutions)
Science	A minimum of 12 semester hours
Sophomore hours	18 or more, 12 of which must be taken at Odessa College

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" in work taken at Odessa College.
Twelve of the last 18 hours, prior to the degree being granted, must be done in residency.
Discharge of all financial obligations to Odessa College.

Associate In Fine Arts Degree

To qualify for the Associate in Fine Arts Degree (A.F.A.), the student must complete the following:

English	2 years, 12 semester hours
Personal Development	Psy 1201
Government	Govt 2301 and 2302
History	History 2301 and 2302 (Hist 2303 may be substituted for either course)
Physical Education*	Two one-hour activity classes (except for approved substitutions)

Completion of an interdisciplinary core including 3 semester hours in Humanities 1310, Introduction to the Fine Arts, and 9 semester hours selected from the following courses:

Dr 1310	Introduction to the Theatre
Phot 1331	Basic Photography
Art 1300	Art Appreciation
Music 1328	Music Appreciation
PE 1146 and/or 1147 and/or 2148	Modern Dance
R/TV 1310	Survey of Radio and Television

Completion of 18 semester hours in one of the following fine arts fields: Dance; Music; Photography; Radio/TV; Theatre; Art.
Completion of 6 semester hours from the following: Anth 2302; Relg 1301 or Relg 1303; Soc 1301; Phil 2301; Psy 1301.

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" in work taken at Odessa College.
Twelve of the last 18 hours, prior to the degree being granted, must be done in residency.
Discharge of all financial obligations to Odessa College.

Associate In Applied Science Degree

To qualify for the Associate in Applied Science Degree (A.A.S.), the student must complete the following:

English and Speech	6 semester hours (Engl 1311, 1312 or Spch 2340)
Personal Development	Psy 1201
Government	3 semester hours as specified in each program
Mathematics	3 semester hours as specified in each program (except Nursing)
Physical Education*	2 one-hour activity classes (except for approved substitutions)
Science	As specified in each program
Sophomore hours	18 semester hours or more, 12 of which must be taken at Odessa College

A minimum of 63 semester hours.
The course of study as prescribed in the specified program.
A minimum average of "C" (2.0) in all work. Transfer students must also have an average "C" in work taken at Odessa College.
Twelve of the last 18 hours, prior to the degree being granted, must be done in residency.
Discharge of all financial obligations to Odessa College.

*Veterans who have two years active service credit may satisfy the PE requirement by submitting a copy of DD-Form 214 to the Registrar's Office.

Certificate of Completion

To qualify for the Certificate of Completion, the student must complete the following:
One year of English.
Personal Development 1201.
Two one-hour activity classes of physical education except for approved substitutions.
Eighteen or more sophomore hours.

A minimum of 63 semester hours.
Twelve of the last eighteen hours, prior to the degree being granted, must be done in residency.
A minimum average of "C" (2.0) in all work. Transfer students must also have an average of "C" in work taken at Odessa College.

Certificates of Technology

Certificates of Technology are awarded for completion of requirements with a minimum average of "C" in all work in certain occupational and technical curricula as prescribed in the Odessa College catalog or as approved by the Associate Dean for Occupational Programs.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1979-80

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Peter E. Petersen, B.S., M.B.A. ..... Associate Dean of Adult and Continuing Education
Amy Hebestreit, B.A. ..... Coordinator of Adult Basic Education
Lea Taylor ..... Director of Community Services

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Shirley Harmon ..... Office Manager
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Beverly Parker ..... Postmistress
Roxanna Patton ..... Internal Auditor
Rochelle Pena, B.S.C. ..... Chief Accountant
Elma Smith ..... Printer

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Olivia Sharp ..... Director, Children's Center

Data Processing

Charles Everett, A.A. ..... Computer Programmer
Koty Krishna, B.E., M.B.I.S. ..... Assistant Director of Data Processing
Patrick Murphy ..... Computer Center Programmer/Analyst
W. Frank Wells, B.B.A. ..... Director of Data Processing

Informational Services

Susan Rutherford, B.A. ..... Information Writer

Learning Resources Center

Peggy Caddell, B.S. ..... Learning Resources Paraprofessional
David Carson, B.A, M.S. ..... Learning Resources Specialist
Eva Cole, B.A., M.L.S. ..... Learning Resources Specialist
Susan Elliott, B.S. ..... Learning Resources Paraprofessional
Judith O. Fleming, B.A., M.L.S. .... Associate Dean of Learning Resources Center
Martha Huff, B.A., M.S.L.S. ..... Learning Resources Specialist
Ned Pilcher, B.A., M.A. ..... Director of Instructional Resources

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Physical Plant

Everisto Cortez ..... Controls Foreman
Verlon Horn ..... Assistant Director of Physical Facilities
Danny Marble ..... Mechanic Foreman
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Max White, B.S. ..... Landscape Architect

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Sue J. Blair, B.S.Ed., M.Ed. ..... Registrar
Norine Bledsoe, B.A., M.A. ..... Director of Financial Aid
Clydia Bowser, B.A., M.A ..... Counselor
Fred Gaither, B.A., M.A. ..... Counselor
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Lisa K. Owens ..... Campus Security Officer
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Astronomy ..... Keith Johnson
Automotive Mechanics ..... Dave Atherton
Biology ..... Dr. Clyde Smith
Building Trades ..... John Price
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Chemistry & Physical Science ..... Dr. Don Taylor
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Communication & Theatre ..... Darlyne Ervin
Cosmetology ..... Faye Morgan

Diesel Mechanics ..... Steve Mapes
Drafting ..... Kenneth Hurst
Drama ..... Dr. Joe Buice
Economics ..... Dr. Dick Kennedy
Educational Aide ..... Mary Joyce Harding
Electricity & Electronics ..... Dr. George Willis
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Emergency Medical Technology ..... Daniel Finley
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Nursing ..... Ann Winn
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Solar Energy ..... Norman Witcher
Speech ..... Darlyne Ervin
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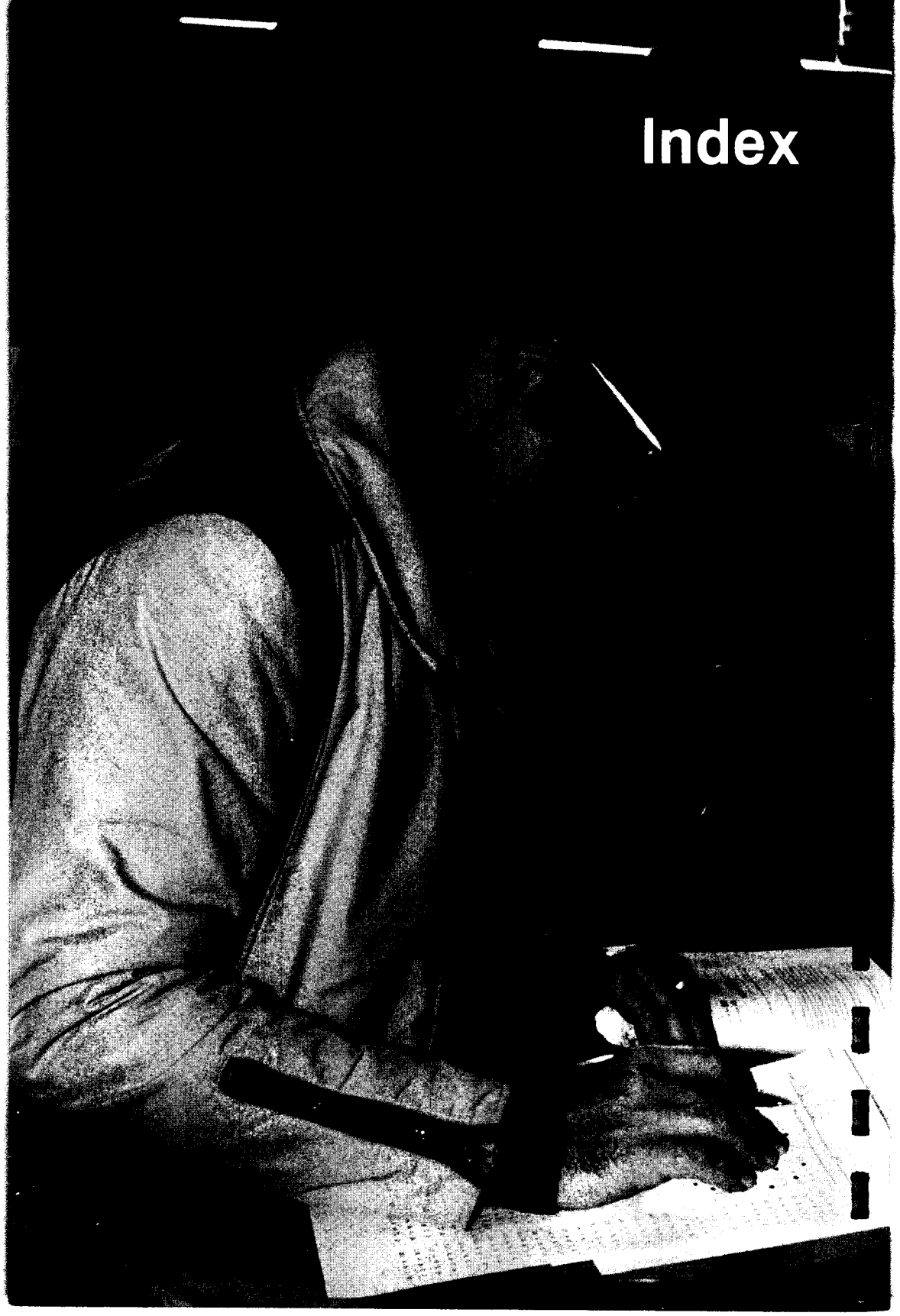

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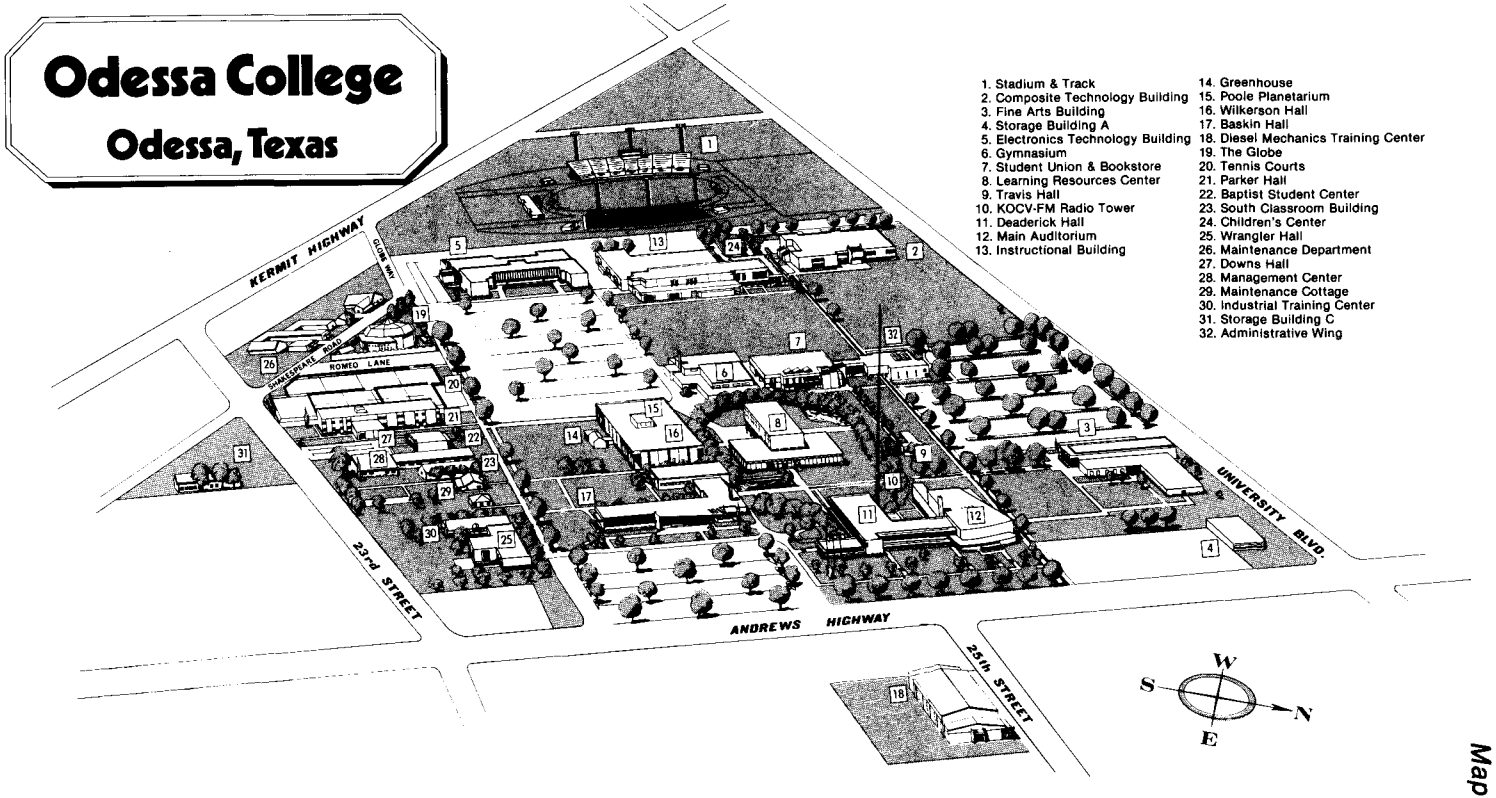
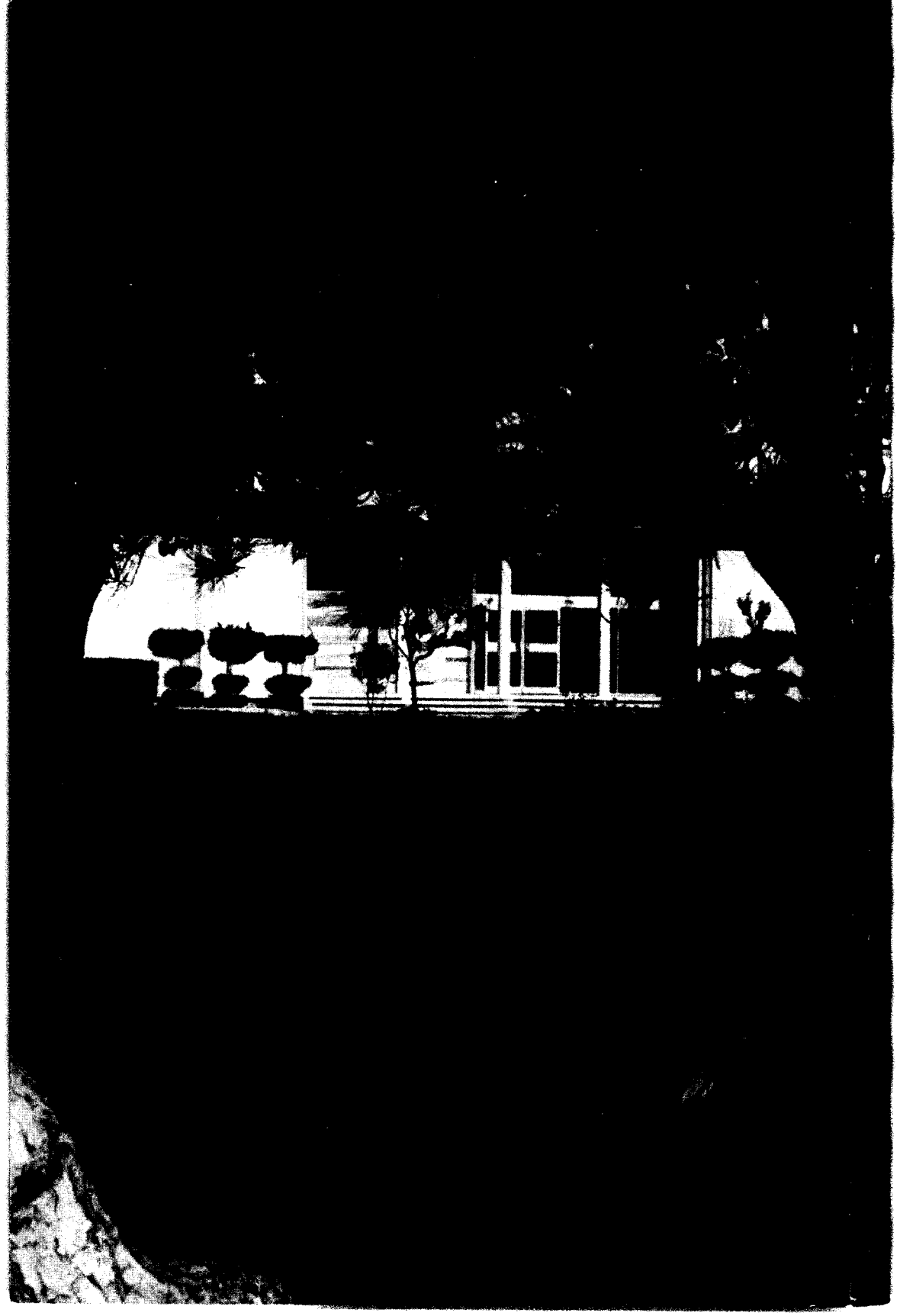
Odessa, Texas



1. Stadium & Track
2. Composite Technology Building
3. Fine Arts Building
4. Storage Building A
5. Electronics Technology Building
6. Gymnasium
7. Student Union & Bookstore
8. Learning Resources Center
9. Travis Hall
10. KOCV-FM Radio Tower
11. Deaderick Hall
12. Main Auditorium
13. Instructional Building
14. Greenhouse
15. Poole Planetarium
16. Wilkerson Hall
17. Baskin Hall
18. Diesel Mechanics Training Center
19. The Globe
20. Tennis Courts
21. Parker Hall
22. Baptist Student Center
23. South Classroom Building
24. Children's Center
25. Wrangler Hall
26. Maintenance Department
27. Downs Hall
28. Management Center
29. Maintenance Cottage
30. Industrial Training Center
31. Storage Building C
32. Administrative Wing

An Equal Opportunity College



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