EASTFIELD COLLEGE CATALOG
1983-84
Dallas County Community College District
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EASTFIELD COLLEGE

Eastfield College serves the eastern part of Dallas County, including East Dallas, Garland, and Mesquite. Sometimes known as the “Educational Village” because of its unique architecture, it is located on 244 acres at the intersection at Interstate 30 and Motley Drive in Mesquite. Eastfield began operation in 1970 and has continually strived to assess the educational and cultural needs of students and the community in order to provide the finest in educational services.

Eastfield provides a full range of Academic Transfer programs balanced with Technical/Occupational Programs that are designed to equip students for rewarding careers in Metroplex businesses and industries. In addition, thousands of people each semester find rewarding growth opportunities through the extensive Community Service course offerings.

The Eastfield campus rises impressively from the plains of eastern Dallas County and is the scene of many seasonal athletic events held on its beautiful grass covered playing fields.

Functional building clusters give students easy access to classrooms and labs and the overall aesthetic effect has earned Eastfield several architectural awards of excellence. The careful landscape planning includes many trees, shrubs and terraced areas as well as a beautiful outdoor swimming pool. In addition, the campus boasts an outstanding performance hall which serves the community for a variety of fine arts events.

Accreditation
Eastfield College is a member of
- The Southern Association of Colleges and Schools
- The American Association of Community and Junior Colleges
- Southern Association of Junior Colleges
- Association of Texas Colleges and Universities
- The League for Innovation in the Community College.

Eastfield is recognized and sanctioned by the Coordinating Board of the Texas College and University System and the Texas Education Agency, and is an Affirmative Action Equal Opportunity Institution.

ACADEMIC CALENDAR

SUMMER SESSIONS, 1983

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<td>May 27 (F)</td>
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<td>May 30 (M)</td>
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<td>May 31 (T)</td>
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<td>June 1 (W)</td>
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<td>June 30 (R)</td>
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Second Session

| July 5 (T)                                                        | Reg  |      |
| July 7 (R)                                                        | Clas |      |
| July 11 (W)                                                       | Last |      |
| July 12 (T)                                                       | 4th  |      |
| Aug 4 (R)                                                         | Last |      |
| Aug 10 (W)                                                        | Fin  |      |
| Aug 10 (W)                                                        | Sems |      |

FALL SEMESTER, 1983

| Aug 17 (W)                                                        | Fac  |      |
| Aug 18, 19, 22                                                   | RFM  |      |
| Aug 23 (T)                                                        | Fac  |      |
| Aug 24 (W)                                                        | Clas |      |
| Aug 27 (S)                                                        | Sat  |      |
| Aug 31 (W)                                                        | Last |      |
| Sept 5 (M)                                                        | Lab  |      |
| Sept 7 (W)                                                        | 12th |      |
| Nov 24 (R)                                                       | Tha  |      |
| Nov 28 (M)                                                       | Clas |      |
| Dec 2 (F)                                                         | Last |      |
| Dec 15 (F)                                                        | Last |      |
| Dec 16, 16, 18 (WRFM)                                            | Exa |      |
| Dec 17 (S)                                                        | Fina |      |
| Dec 19 (M)                                                        | Sems |      |

SPRING SEMESTER, 1984

| Jan 9 (M)                                                        | Fac  |      |
| Jan 10, 12 (TWR)                                                | Reg  |      |
| Jan 13 (F)                                                        | Fac  |      |
| Jan 14 (S)                                                        | Sat  |      |
| Jan 18 (M)                                                        | Clas |      |
| Jan 23 (M)                                                        | Last |      |
| Jan 27 (F)                                                        | 12th |      |
| Feb 16 (R)                                                        | Dist |      |
| Feb 17 (F)                                                        | Fac  |      |
| Mar 19 (M)                                                        | Spr  |      |
| Mar 23 (M)                                                        | Clas |      |
| Apr 20 (F)                                                        | Easter|     |
| Apr 23 (M)                                                        | Clas |      |
| Apr 27 (F)                                                        | Last |      |
| May 9 (W)                                                        | Last |      |
| May 10-11, 14-15 (RFMT)                                         | Exam |      |
| May 12 (S)                                                        | Fin  |      |
| May 15 (T)                                                        | Grad |      |
| May 15 (T)                                                        | Sems |      |
DALLAS COUNTY COMMUNITY COLLEGE DISTRICT BOARD OF TRUSTEES

Top from left: Don Buchholz, Chairman; Bob Beard, Vice Chairman; Jerry Gilmore; Pattie T. Powell. Bottom from left: Trammell Crow; J.D. Hall; Bob Bettis; R. Jan LeCroy, Chancellor.

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT ADMINISTRATORS

Chancellor ...................................... R. Jan LeCroy
Vice Chancellor of Business Affairs ..................................... Ted B. Hughes
Vice Chancellor of Educational Affairs ..................................... Terry O'Banion
Assistant Chancellor of Planning and Development Affairs .................. Bill Tucker
Associate Vice Chancellor of Educational Affairs ...................... Ruth Shaw
Assistant to the Chancellor ......................................... Jackie Caswell
Director of Development ........................................... Carole Shipak
Legal Counsel ................................................................. Robert Young
Special Assistant to the Chancellor ....................................... Lehman Marks
Director of Business Services ........................................... Robb Dean
Director of Educational Resources ...................................... Rodger Pool
Director of Computer Services ........................................... Jim Hill
Director of Community & Student Programs ...................... Richard McCravy
Director of Facilities Management ..................................... Edward Bogard
Director of Personnel Services and Development .................... Barbara K. Barnes
Director of Planning, Research and Evaluation ....................... Colin Shaw
Director of Public Information .......................................... Claudia Robinson
Director of Purchasing ................................................. Mavis Williams
Director of Resource Development .................................... Bonny Franke
Director of Technical Services .......................................... Paul Dumont
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<tr>
<td>Allison, Joe F.</td>
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<td>Speech</td>
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**EASTFIELD COLLEGE FACULTY AND STAFF**
Fountaine, Oliver J. .................................................. Mathematics
Tillotson College, B.S.; Univ of Denver, M.A.

Gauntlett, Claire .................................................. Community Service
El Centro, A.A.; North Texas State, B.A.; Univ. of Arizona, M.A.

Gormly, Donna A. .................................................. English
Texas Woman's Univ., B.A., M.A.; Further study: Texas Christian Univ.

Graupman, Lee .................................................. Vice President of Student Services
LaCrosse State Univ., B.S.; Western State College of Colorado, M.A.; Further study: Fresno State College, San Francisco State College

Hamilton, Hance H. .................................................. Chemistry
Texas A&M Univ., B.S., Ph.D.

Hegar, E. Alyiene .................................................. Counselor, Psychology
Texas Tech Univ., B.A.; North Texas State Univ., M.Ed., Ed.D.

Helton, Charles E. .................................................. Director of Appraisal Center/CAI Lab
East Texas State Univ., B.S.; Further study: East Texas State Univ.

Henry, Robert M. .................................................. Physical Education
Southwestern Baptist Theological Seminary, B.A.; Univ. of Illinois, M.S.; Further study: Univ. of Texas, North Texas State University, East Texas State Univ., Texas Tech Univ., Texas A&M Univ.

Henson, Jerry C. .................................................. Vice President of Instruction
Hardin-Simmons Univ., B.A.; Southwestern Baptist Theological Seminary, B.D.; Baylor Univ., Ph.D.

Herd, Clarence W. .................................................. Automotive Technology
East Texas State Univ., B.A.; Further study: East Texas State Univ.

Hill, H. Rayburn .................................................. Government
Paris Junior College, A.A.; East Texas State Univ., B.S., M.S.; Further study, Univ. of Oklahoma, East Texas State University

Hinkle, John L. .................................................. English
Baylor Univ., B.A.; East Texas State Univ., M.A.; Further study: Baylor Univ., East Texas State Univ.

Holloway, Ralph .................................................. Director of Instructional Development
Amarillo College, A.A.; Hardin-Simmons Univ., B.A.; North Texas State Univ., M.L.S.; Further study: University of Texas at Austin, East Texas State Univ.

Holman, Morris H. .................................................. History
East Texas State Univ., B.A., M.A.; Dallas Theological Seminary, M.A.B.S.; Further study: North Texas State Univ.

Hughes, W. Tim Jr. .................................................. History, Government
Henderson State Teachers College, B.S.E.; George Peabody College for Teachers, M.A.; Further study: Baylor Univ., East Texas State Univ., Univ. of the Americas, Texas A&M Univ.

Hutchins, Michael E. .................................................. Drafting
East Texas State Univ., B.S., M.S., Ed.D.

Jeffus, Larry .................................................. Welding
Hixassee College, A.A.; Univ. of Tennessee, B.S.; Further study, Univ. of Tennessee

Jessen, Joel A. .................................................. Counselor
Univ. of Iowa, B.A., M.A.

John, Margaret .................................................. Counselor
Austin College, B.A.; East Texas State Univ., M.A.

Karnèr, Albert M. .................................................. Air Conditioning and Refrigeration
Study: Univ. of Oklahoma, Oklahoma State Univ., Univ. of Tulsa

Kennedy, Pat .................................................. Child Development
North Texas State Univ., B.A., M.S.

King, H. Gill .................................................. Anthropology, Biology
Southern Methodist Univ., B.A., M.A., Ph.D.

Kirkpatrick, James Michael .................................................. Drafting
Oklahoma City Univ., B.I.A.; North Texas State Univ., M.Ed., Ed.D.

Knight, Carl E. .................................................. Biology
Michigan State Univ., B.S., M.S., Ph.D.

Kloeppe, Larry G. .................................................. Counselor
North Texas State Univ., B.S., M.Ed.; Further study: North Texas State Univ.

Kozol, Gerald .................................................. Learning Resources - Classroom Resources
Eastfield College, A.A.S.; North Texas State Univ., B.A., East Texas State Univ., M.S., Further study: North Texas State Univ.

Kugler, Ellen .................................................. Assistant Director of Student Development
Colorado State Univ., B.A, M.Ed.

Latham, Jim .................................................. Auto Body Technology
East Texas State Univ., B.A.; Further study: East Texas State Univ., Texas A&M Univ.

Lemme, Karin .................................................. Division Chairman, Communications/Developmental Studies

Lopez, Frank .................................................. Mathematics
Southwest Texas State College, B.S.; Univ. of Texas at Austin, M.A.; Further study: Texas A&M Univ.

Lucky, Harrel C. .................................................. Music
Bethany Nazarene College, B.M.Ed.; Southwestern Baptist Seminary, M.C.M., D.M.E.; Further study: Academy of Music, Vienna, Austria

Lynch, Maurice .................................................. Director of Physical Plant
Madriguera, Enric F. .................................................. Music
Royal Conservatory of Music, Madrid, Spain; Oscar Espla Conservatory of Music, Alicante, Spain; East Carolina Univ.

Martin, M. Diane .................................................. English
North Texas State Univ., B.A.; California State College at Fullerton, M.A.; Further study: East Texas State Univ., Univ. of Texas at Austin

Massey, Aaron W. .................................................. Counselor
Southwest Texas State, B.S.; East Texas State Univ., M.S.; Further study: East Texas State Univ., North Texas State Univ., Abilene Christian Univ., Texas A&M Univ.

Mathus, Don L. .................................................. Physical Education
South Plains College, A.A.; Texas Tech Univ., B.S., M.S.; Further study: North Texas State Univ.
Otto, Eleanor ........................................ President
Rice Univ., B.A.; Southern Methodist Univ., M.A.

Palmer, Ursula J. ...................................... Training Paraprofessionals for the Deaf Program
Salve Regina College, B.A.; Univ. of Arizona, M.S.; Further study: Univ. of Arizona

Penney, Jane A. ....................................... Sociology/Human Services
East Texas State Univ., B.S., M.S.

Penny, Duane ......................................... Director of Co-op Ed/Training
Navarro Jr. College, North Texas State Univ., East Texas State
Univ., B.S., M.A., M.S.

Phillips, Jim G ......................................... Counselor
East Texas State Univ., B.A., M.A., Ph.D.; Further study: North Texas State Univ.

Pilot, Theo ............................................. Child Development
University of Maryland, B.S.; Texas Woman's Univ., M.S.

Pitt, J. Michael ........................................ Physics
Southern Methodist Univ., B.S.E.E.; Univ. of Texas at Austin, Ph.D.

Pleasant, P. Leon Jr .................................... Accounting
North Texas State Univ., B.B.A.; East Texas State Univ., M.B.A.; Further study: East Texas State Univ.

Preston, David E ...................................... Sociology
East Texas State Univ., B.S., M.S.; North Texas State Univ., Ed.D.

Priest, Andy J .......................................... Automotive Technology and Engineering
North Texas State Univ., B.S.; Southern Methodist Univ., M.L.A.; Further study: East Texas State Univ.

Privette, Pamela ..................................... Electronics
Univ. of Texas at Austin, B.S.E.E.

Purdy, Earlyne ...................................... Secretarial Science
North Texas State Univ., B.S.; East Texas State Univ., M.S.

Rawlins, John Clayton ............................. Electronics
Southern Methodist Univ., B.S.E.E.; East Texas State Univ., M.S.Ed.

Reeves, Ed R ......................................... Biology
West Texas Univ., B.S.; East Texas State Univ., M.S.; Further study: Texas Tech Univ.

Reynolds, Cheri ...................................... Director of Health Services
Texas Women's Univ., B.S.; Further study: Texas Women's Univ.

Rice, Nina D .......................................... Physical Education
Univ. of Central Arkansas, B.S.; George Peabody College, M.A.; Texas Woman's Univ., Ph.D.

Richardson, Douglas M ............................ Mid-Management
North Texas State Univ., B.B.A., M.B.A.; Further study: East Texas State Univ.

Rizzuto, Victor J ....................................... Division Chairman, Business
Southwest Texas State Univ., B.B.A., M.B.A.; North Texas State Univ., Ph.D. Candidate

Robinson, Yvonne .................................. Secretarial Science
D.C. Teacher's College, B.S.; North Texas State Univ., M.B.E.; East Texas State Univ., Ed.D.

Ruggiero, Edward .................................... Division Chairman, Science
Fordham Univ., B.S.; City Univ. of New York, M.S.; Further study: City Univ. of New York, Univ. of Texas at Dallas

St. Clair, Anita J .................................... Secretarial Science
Abilene Christian College, B.S.E.; North Texas State Univ., M.B.E.; Further study: Southern Methodist Univ., North Texas State Univ., East Texas State Univ.

Sanders, Marja-Tettu ................................ Spanish
El Centro College, A.A.; North Texas State Univ., B.A., M.A.; Further study: East Texas State Univ., Texas Tech Univ.

Schmitt, Allan B ..................................... Electronics
Univ. of Texas at Austin, B.S.E.E., M.S.E.E., Ph.D.E.

Schup, Sara J .......................................... Art
Art Institute of Chicago, B.F.A.; Univ. of Dallas, M.A., M.F.A.

Scott, Ray R .......................................... Physics
North Texas State Univ., B.A.; East Texas State Univ., M.S.; Purdue Univ., M.S.; Further study: East Texas State Univ.

McAden, Winston .................................. Air Conditioning and Refrigeration
Texas Tech Univ., B.S.; Further study: Southern Methodist Univ.

McClellen, Lu ........................................ Associate Dean, Technical/Occupational Programs
Baylor Univ., B.A.; East Texas State Univ., M.Ed., Ed.D.

McCoy, Jerry D ...................................... Photography
Southwestern Univ., Texas

McClung, Ray O .................................... Counselor, Psychology
Texas A&M Univ., B.S.; Univ. of Illinois, M.S.; North Texas State Univ., Ph.D.

McDougal, Pierre M ................................. Piano
Performer's Certificate, Ecole Normale de Musique, Southern Methodist Univ., M.M.

Negri, Beverly ........................................ Associate Dean, Learning Resources

Neil, Mary Lou ...................................... English
Texas Christian Univ., B.A.; University of Dallas, M.A.; Further study: Univ. of Dallas

Ort, Harry ............................................ Data Processing
Univ. of Texas at Austin, B.A., M.A.
Sharp, Robert G ................................. American History
Whitworth College B.A.; Purdue Univ., M.A.; Further study: Univ. of Denver, Univ of New Mexico

Sherrill, Theodore B. III ......................................... Biology
Lamar State Univ., B.S.; East Texas State Univ., M.S.; Further study: Southern Methodist Univ., North Texas State Univ., East Texas State Univ.

Shelmer, Robert W ........................................ English
North Texas State Univ., B.A., M.A.

Slovak, Pauline A .................................................. English, German
Univ. of Arkansas at Monticello, B.S.E.; East Texas State Univ., M.A.

Smith, Maryle Bea .................................................. Business
North Texas State Univ., B.B.A., M.B.A.; Further study: East Texas State Univ

Solganick, Harvey ............................................. English, German Philosophy
North Texas State Univ., B.A., M.Ed, Southern Methodist Univ., M.A.; Further study: Univ of Texas at Arlington, Univ. of Dallas, Univ. of Texas at Dallas, Univ. of California at Santa Barbara

Staring, Susanne .............................. American History
Baylor Univ., B.A.; North Texas State Univ., M.A.; Further study North Texas State Univ.

Stewart, John D. ........................................... Division Chairman, Humanities, Music
East Texas State Univ., B.M.Ed., M.Ed., Indiana Univ., Ph.D.

Stock, Carolyn ........................................... Associate Dean of Community Services
Ohio Univ., B.A.

Stover, Harryette B ........................................ English
Southern Methodist Univ., B.A., M.A.; Further study: North Texas State Univ., East Texas State Univ.

Streeter, C. Allen .................................................. Engineering
Louisiana State Univ., B.S., M.S.; Further Study: Southern Methodist Univ.; Professional Engineer Registration

Streng, Adolf C., Jr ................................. Psychology
Texas Lutheran College, B.A.; Wartburg Seminary, M.Div.; The Univ. of Chicago, M.A.; Roosevelt Univ., M.A.; Further study: Univ. of Maine, Iowa State Univ., Univ. of Colorado

Swinding, James A ........................................ Developmental Reading
Daytona Beach Community College, A.A.; Florida State Univ., B.A.; M.S.; Further study: Univ. of Nevada, East Texas State Univ.

Thorne, John M ........................................... Accounting
East Texas State Univ., B.B.A., M.B.A.; Further Study: Univ of Oklahoma

Thorton, Carolyn ............................................ Counseling
Univ. of Cincinnati, B.A.; East Texas State Univ., M.S.

Tinsley, Sammy J ................................................ Developmental Mathematics
Ouachita Baptist Univ., B.A.; Univ of Mississippi, M.S., Ph.D.

Trout, Bobbie .................................................. Registrar
Univ. of Texas at Austin, B.A.; Univ. of Texas at Dallas, M.A.

Weaver, Gayle M .............................................. Biology
East Texas State Univ., B.S., M.S.; Univ of Oklahoma, M.S.; East Texas State Univ., Ph.D.; Further study: Oak Ridge Institute of Nuclear Studies

Weeks, Roger D ............................................. Business
East Texas State Univ., B.B.A., M.B.A.; Further study: Univ of Missouri

Whisnant, Robert A., Jr ............................... Humanities
Univ. of South Florida, B.A., M.A.; Further study: East Texas State Univ.

Williams, Jerome .............................................. Biology
East Texas State Univ., B.S., M.S.; Further study: East Texas State Univ., North Texas State Univ.

Wilson, Mary C ................................................ English

Winn, Jerry M ................................................ Developmental Mathematics
Oklahoma Univ., B.S.E.; Southern Methodist Univ., M.S.

Wisdom, Hardy ............................................. Auto Body Technology
North Texas State Univ., B.S.
I. GENERAL INFORMATION

HISTORY OF THE DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

The Dallas County Community College District is comprised of seven colleges located strategically throughout Dallas County. Together the colleges enroll approximately 75,000 students and employ over 1,900 full-time faculty and staff members.

The growth of the District into an educational system with such impact was not by chance. In May, 1965, voters created the Dallas County Junior College District and approved a $41.5 million bond issue to finance it. The next year the District's first college, El Centro, began operation in downtown Dallas. Eastfield College and Mountain View College enrolled their first students in 1970, and the plans for a multi-campus district became a reality. Richland College became the District's fourth college in 1972.

The voters of Dallas County approved the sale of an additional $85 million in bonds in September, 1972. This step provided for expansion of the four existing colleges and the construction of three more colleges. A key part of the expansion program was the remodeling and enlarging of El Centro College, a project completed in 1979. Construction of new facilities resulted in the opening of Cedar Valley College and North Lake College in 1977. Brookhaven College, the final campus in the seven-college master plan, opened in 1978.

DISTRICT PHILOSOPHY AND GOALS

Since 1972, the District has been known as the Dallas County Community College District. The name shows that the District has outgrown the term "junior college." The name also reflects the District's philosophy. The colleges truly are community institutions, meeting the varied educational needs of the growing Dallas County region. The primary goal of the District and its colleges is to help students of all ages achieve effective living and responsible citizenship in a fast-changing region, state, nation, and world. Each college is therefore committed to providing a broad range of educational programs for the people it serves.

The needs, abilities, and goals of each student are considered important. The focus is on creating an educational program for the individual rather than squeezing or stretching the individual to fit an "educational mold." The District therefore has a place for different kinds of students. There is a place for the young person setting forth toward a degree in medicine, and a place for the adult delving into an interesting hobby to enrich leisure hours. There is a place for the person preparing to enter a trade or technical field with a year or two of studies, and a place for the employed individual wanting to improve occupational skills. There is a place for the very bright high school student ready to begin college work in advance of high school graduation, and a place for the high school dropout who now sees the need for education in today's complex society. In short, there is a place for everyone.

How do the colleges meet the educational needs of such a varied family? The answer is found in four categories of programs:

1. For the student working toward a bachelor's or higher degree, the colleges offer a wide range of first-year and second-year courses which transfer to senior colleges and universities.
2. For the student seeking a meaningful job, the colleges offer one-year and two-year programs in technical and occupational fields.
3. For the employed person wishing to improve job skills or to move into a new job, the colleges offer credit and non-credit adult educational courses.
4. For the person who simply wants to make life a little more interesting, the colleges offer community service programs on cultural, civic and other topics.

Additional programs are available for the high school student, dropout, and others with special needs. The colleges help each student design the educational program that best meets individual needs. Every student is offered intensive counseling to define goals and identify abilities. Continued guidance is available throughout the student's college career in case goals and plans change. This emphasis on counseling, rare for some institutions, is routine at all District colleges.

DISTRICT RESPONSIBILITIES

To carry out the District philosophy, the colleges obviously must offer a range of programs and courses, including guidance services. These programs and courses must help each individual attain a high level of technical competence and a high level of cultural, intellectual, and social development. In addition, high professional standards for the academic staff must be maintained.
within a framework prescribed by the Board of Trustees. At the same time, the program and organization of each college must make maximum use of faculty and facilities.

The colleges have a basic responsibility to provide educational and cultural leadership to the community. They must be sensitive to changing community needs and adapt readily to those needs. Individuals capable of continuing their educational development should be given the opportunity to improve their skills. Finally, to continue to meet its responsibilities in changing times, the college system must guard against stagnation. Creativity and flexibility are therefore fostered at the District level and on each campus.

**LEAGUE FOR INNOVATION**

The Dallas County Community College District is a member of the League for Innovation in the Community College. The League is composed of 17 outstanding community college districts throughout the nation. Its purpose is to encourage innovative experimentation and the continuing development of the community college movement in America. Membership commits the District to research, evaluation, and cooperation with other community college districts. The goal is to serve the community with the best educational program and the fullest use of resources.

**EQUAL EDUCATIONAL AND EMPLOYMENT OPPORTUNITY POLICY**

Dallas County Community College District is committed to providing equal educational and employment opportunity regardless of sex, marital or parental status, race, color, religion, age, national origin, or handicap. The District provides equal opportunity in accord with Federal and State laws. Equal educational opportunity includes admission, recruitment, extra-curricular programs and activities, access to course offerings, counseling and testing, financial aid, employment, health and insurance services, and athletics. Existing administrative procedures of the College are used to handle student grievances. When a student believes a condition of the College is unfair or discriminatory, the student can appeal to the administrator in charge of that area. Appeals to higher administrative authority are considered on the merits of the case.

**FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974**

In compliance with the Family Educational Rights and Privacy Act of 1974, the College may release information classified as “directory information” to the general public without the written consent of the student. Directory information includes: (1) student name, (2) student address, (3) telephone number, (4) dates of attendance, (5) educational institution most recently attended, and (6) other information, including major field of study and degrees and awards received.

A student may request that all or any part of the directory information be withheld from the public by giving written notice to the Registrar’s Office during the first twelve class days of a fall or spring semester or the first four class days of a summer session. If no request is filed, information is released upon inquiry. No telephone inquiries are acknowledged; all requests must be made in person. No transcript or academic record is released without written consent from the student stating the information to be given, except as specified by law.

**STUDENT CONSUMER INFORMATION SERVICES**

Pursuant to Public Law 178, the College provides all students with information about its academic programs and financial aid available to students.

**STANDARDS OF CONDUCT**

The college student is considered a responsible adult. The student’s enrollment indicates acceptance of the standards of conduct published in this catalog.

### II. ADMISSIONS AND REGISTRATION

**GENERAL ADMISSIONS POLICY**

The College has an “open door” admissions policy. It insures that all persons who can profit from post-secondary education have an opportunity to enroll. The College requires certain assessment procedures for use in course placement prior to admission to a certificate or degree program, but the assessment is not used to determine admissions.

**ADMISSION REQUIREMENTS**

**Beginning Freshmen**

Students enrolling in college for the first time who fit one of the following categories may apply for admission:

- a. Graduates from an accredited high school or those who have earned a General Education Diploma (G.E.D.), who are 18 years of age or older, and whose high school class has graduated.
- b. Graduates of an unaccredited high school who are 18 years of age or older.
- c. Persons who do not hold a high school diploma or G.E.D. (but who are 18 years of age or older and whose high school class has graduated) may be admitted by giving evidence of an ability to profit from college instruction. Such admission will be on a probationary basis.
- d. High school seniors recommended by their high school principal. The College admits a limited number of students in this category. The students are concurrently enrolled for a maximum of 6 hours of special study each semester. Students must continue to make normal progress toward high school graduation.

**Transfer Students**

Transfer applicants are considered for admission on the basis of their previous college record. Academic standing for transfer applicants is determined by the Registrar’s Office according to standards established by the College. Students on scholastic or disciplinary suspension from another institution must petition the Committee on Admissions and Academic Relations for special approval. Contact the Admissions Office for further information.

**Former Students**

Students formerly enrolled in the Dallas County Community College District must submit an application for readmission to any District college. Students with unsettled financial debts at any District college will not be readmitted.

**Non-Credit Students**

Students enrolling for non-credit courses apply through Community Services.

**International Students**

The College is authorized under federal law to enroll non-immigrant alien students. International students are not admitted, however, until all
Applications may be submitted any time prior to registration. Earlier application applicants should submit materials at least three weeks before registration to have a complete admissions file. Contact the Admissions Office for information.

APPLICATION AND ADMISSION PROCEDURES

Applications may be submitted any time prior to registration, but applicants should submit materials at least three weeks before registration to assure effective counseling and schedule planning. Earlier application is desirable because the student's place in registration is determined by the date an applicant's admission file is complete. A late place in registration may mean that the student cannot register for some courses because they are already filled.

Applicants must submit the following material to the Admissions Office to have a complete admissions file:

a. An official application, available from the Admissions Office.
b. An official transcript from the last school (high school or college) attended. Students seeking certificates or associate degrees must submit official transcripts of all previous college work. The College's accrediting agency requires transcripts, and the College uses them in program advisement.
c. Written proof from a medical office of (1) a negative tuberculin skin test or chest X-ray, (2) a polio immunization if the applicant is under 19 years of age, and (3) a diptheria tetanus injection within the last 10 years. This medical proof is required by state law (Tex. ED. Code 2.09). Once the above materials are submitted, the applicant is assigned a place in registration. All applicants may select only those classes available when they register. Students may enroll in certain courses at times other than regular semester registration. See Flexible Entry Courses in this catalog and contact the Registrar's Office for additional information.

TUITION

Tuition is charged on a sliding scale according to the number of credit hours for which a student is enrolled and the student's place of legal residence. Tuition is subject to change without notice by the Board of Trustees or the Texas Legislature.

ADDITIONAL FEES

Additional fees may be assessed as new programs are developed with special laboratory costs. These fees will always be kept to a practical minimum. A graduation fee is not assessed, but each student must pay for cap and gown rental.

DALIASS COUNTY COMMUNITY COLLEGE DISTRICT TUITION AND STUDENT SERVICES FEE

<table>
<thead>
<tr>
<th>Semester</th>
<th>Dallas County</th>
<th>Out-of-District</th>
<th>Out-of-State, or Out-of-Country</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cr. Hours</td>
<td>Tuition</td>
<td>Fee</td>
</tr>
<tr>
<td></td>
<td>$25</td>
<td>$1</td>
<td>$26</td>
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</tbody>
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The following definitions are brief guidelines only; please discuss any questions regarding proper tuition classification with Admissions Office personnel.

A Dallas County resident is one who (1) resides in Dallas County and (2) qualifies as an in-state resident. Texas law defines an in-state resident as an individual "who is employed full-time in Texas for the 12-month period preceding registration." The Dallas County Community College District Board of Trustees has waived the difference in tuition between the out-of-state or out-of-district rates and Dallas County rates for a person and his/her dependents who owns real estate, business or personal, within Dallas County. For information on documents necessary to prove such ownership or dependency, consult the Admissions Office. Classification as a state resident or qualification for a waiver of out-of-state fees applies only to U.S. citizens or permanent resident aliens.

A foreign national or any other than a permanent resident visa must pay out-of-country tuition and fees.

*The tuition schedule above is subject to change without notice by action of the District Board of Trustees or the State of Texas.
SPECIAL FEES AND CHARGES
Laboratory Fee: $2 to $8 a semester (per lab).
Physical Education Activity Fee: $5 a semester.
Bowling Class Fee: Student pays cost of lane rental.
Private Music Lesson Fee:*$45 for one hour per week (maximum) for one course, $25 for one half hour per week.
Audit Fee: The charge for auditing a course is the same as if the course were taken for credit, except that a student service fee is not charged. Credit by Examination: A fee will be charged for each examination.**

* Available only to music majors enrolled for 12 hours or more.
** This fee can change without prior notice.

REFUND POLICY
Student tuition and fees provide only a fraction of the cost of education. When students enroll in a class, they reserve places which cannot be made available to other students unless they officially drop the class during the first week of the semester. Therefore, a refund is made only under the following conditions:
a. No 100% refund is granted unless College error is involved.
b. An 80% refund of tuition and fees may be obtained through the date noted in the college calendar. An 80% refund may be given through the first two class days of a six-week summer session or fast track semester. Refunds for Flexible Entry Courses are considered through completion of the second day of class from the date of enrollment.
c. No refund is given for advanced placement or College Level Examination Program (CLEP) tests.
d. A physician's statement must be submitted along with petitions when medical reasons account for withdrawal. Requests for refunds must be submitted before the end of the semester for which the refund is requested.
e. No refund of less than $4 for tuition and fees is made.

Audit Petition Forms are available in the Counseling Center and the Office of the Vice President of Student Services. Students who believe their refund requests are due to extenuating circumstances beyond the limits of the refund policy should state explicitly their circumstances on the Refund Petition Form. All requests for refunds are referred to the Refund Petition Committee. The Committee's recommendations are made to the Vice President of Student Services who notifies the student of the action taken. Refund checks are normally mailed to the student ten days after approval for processing.

RETURNED CHECKS
Checks returned to the Business Office must be paid with cash or a cashier's check within the time limits prescribed by the notification letter. An additional fee is added for returned checks.

ADVISEMENT PROCEDURES
Individual assessment of skill levels is an important part of student success in college. Therefore, the District has provided an assessment process available through the counseling centers at each of the District colleges. Information gained from assessment is used to advise students in the selection of courses which can provide the best possible opportunity for academic success. All students are required to go through an assessment process and should schedule it prior to initial registration. Developmental studies are available for students who need skill development in reading, writing, or math. Test data, transcripts, previous work, and counseling may be used to determine placement in this program.

COURSE PREREQUISITES
Prerequisites are established for certain advanced courses to help assure that students have sufficient background in the subject area to maximize their probability of success in the course. The College recognizes that certain related life experiences may also provide necessary background for success in these courses. Therefore, the division chairperson is authorized to waive a course prerequisite.

CHANGE OF SCHEDULE
Students should be careful in registering to schedule courses only for the days and hours they can attend. Students requesting class changes should contact the Registrar's Office during the time specified in the class schedule. No change is complete until it has been processed by the Registrar's Office.

NON-CREDIT STUDENT (AUDIT)
A person who meets the admission requirements of the District may, with the consent of the division chairperson and instructor, enroll in a credit course as a non-credit student. A non-credit student may attend class, but may not receive a final grade or credit for a course. An instructor may give an examination if he determines the examination is an essential component of the learning process. The fee in a credit course is the same for a non-credit student as for a credit student.

TRANSFER OF CREDITS
Transfer of credit is generally given for all passing work completed at accredited colleges and universities. The Registrar's Office evaluates all transfer credit. Transfer students admitted with a grade point deficiency cannot graduate until the deficiency is cleared by earning additional grade points. Credits earned in military service schools or through the U.S. Armed Forces Institute are reviewed by the Registrar and credit granted if applicable.

DROPPING A COURSE OR WITHDRAWING FROM COLLEGE
To drop a class or withdraw from the College, students must obtain a drop or withdrawal form and follow the prescribed procedure. Should circumstances prevent a student from appearing in person to withdraw from the College, the student may withdraw by mail by writing to the Registrar. No drop or withdrawal requests are accepted by telephone. Students who drop a class or withdraw from the College before the semester deadline receive a "W" (Withdraw) in each class dropped. The deadline for receiving a "W" is indicated on the academic calendar. After that time students receive a performance grade in each course.

ADDRESS CHANGES AND SOCIAL SECURITY NUMBER
Each student has the responsibility to inform the Registrar's Office of changes in name or address. Each applicant for admission is asked to furnish a Social Security number. This number doubles as a student identification number and insures accuracy of student records. If a student does not have a Social Security number, another number is assigned for record keeping.
DEGREE REQUIREMENTS

The College confers the Associate in Arts and Sciences Degree upon students who have completed all general and specific requirements for graduation. Each degree candidate must earn the last 15 hours as a resident student in the District colleges or accrue 45 hours in residence.

The degree must be awarded by the college which offers the program in which the student majored. If two or more schools offer the program, the student is granted the degree where the majority of the hours were taken. Correspondence work must be approved by the Registrar for graduation credit. No more than one-fourth of the work required for any degree or certificate may be taken by correspondence.

ASSOCIATE IN ARTS AND SCIENCES DEGREE

Students must have a minimum of 60 credit hours and a grade point average of at least "C" (2.0) to receive the Associate in Arts and Sciences Degree. These 60 hours may be earned at any District college. They must include:

- English 101-102 plus an additional 6 hours of English for a total of 12 credit hours in English.
- 8 credit hours in Laboratory Science (Music majors will substitute Music 101-102 for this requirement.)
- 12 credit hours of History 101-102 and Government 201-202. No substitutions are allowed. Only 3 credit hours of history and 3 credit hours of government may be earned through credit by examination. CLEP credit may not be used to meet this requirement.
- 3 credit hours in Humanities, selected from Theater 101, Art 104, Music 104, Humanities 101 or Philosophy 102.
- A maximum of 4 physical education activity hours may be counted as credit toward requirements for graduation. Courses numbered 99 and below cannot be included to meet degree or certificate requirements. Music 199, Art 199, and Theater 199 may not be counted toward the 60 hour minimum.

All students planning to transfer to a four-year institution may complete their four semester requirements in physical education during their freshman and sophomore year. Students are urged to consult the catalogs of the institutions to which they may transfer for their special requirements. These catalogs should be used by students and advisors in planning programs.

ASSOCIATE IN APPLIED ARTS AND SCIENCES DEGREE AND CERTIFICATE CAREER PROGRAMS

Students must have a minimum of 60 credit hours and a grade point average of at least "C" (2.0) to receive the Associate in Applied Arts and Sciences Degree. For some programs, more than 60 credit hours are required. All prescribed requirements for the specific Technical/Occupational Program in which the student is enrolled must be completed. These programs may also have other criteria in addition to degree requirements.

See the Technical/Occupational Programs section of this catalog for a more detailed explanation. The requirements for certificates are detailed under specific programs listed in the Technical/Occupational Programs section of this catalog. A "C" (2.0) grade point average is required. A maximum of 4 physical education activity hours may be counted as credit toward graduation. Courses numbered 99 and below may not be included to meet degree or certificate requirements. Music 199, Art 199, and Theatre 199 may not be counted toward the 60-hour minimum.
PROCEDURE FOR FILING DEGREE AND CERTIFICATE PLANS AND FOR GRADUATION

Students should request a degree plan from the Registrar’s Office at the end of their freshman year. Official transcripts of all previous college work must be on file at the time of request for degree plans. Students following a one-year certificate program should request an official plan during the first semester of their enrollment. Application for the granting of the degree or certificate should be filed in the Registrar’s Office prior to the deadline announced by the Registrar.

An annual graduation ceremony is held at the conclusion of the spring semester. Participation is ceremonial only and confers on a student no rights to a degree. January and August graduates may participate in the next commencement if they desire, but they are not required to do so. The Registrar’s Office should be notified if the student wishes to participate. Instructions for graduation are mailed to all candidates thirty days prior to commencement.

Within five years of initial enrollment a student may graduate according to the catalog requirements in effect at the time of first enrollment or any subsequent catalog provided the requisite courses are still being offered.

If a student fails to complete within five years all requirements of the catalog in effect at the time of initial enrollment, then the student may be required to graduate under a later catalog at the discretion of the institution.

RECOMMENDED ACADEMIC LOAD

The maximum academic load is 18 credit hours of course work per semester or five classes plus physical education. Students must receive permission of the Registrar or the appropriate college official to carry a heavier load. Employed students carrying a full load (12 credit hours or more) should not work more than twenty hours per week. Students working more hours should reduce their academic load proportionately.

The recommended load limit for day or evening students who are employed full-time is 6 credit hours. The recommended load limit in a six-week summer session is 6 credit hours. A total of 14 credit hours is the maximum that may be earned in any twelve-week summer period.

CLASS ATTENDANCE

Students are expected to attend regularly all classes in which they are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs.

Instructors are responsible for describing attendance policy and procedures to all students enrolled in their classes. Students who do not attend class during the first twelve days of a long semester or the first four days of a summer session are dropped by the instructor. After this time, it is the responsibility of the student to withdraw from the course. A student, however, may be dropped from the class roll prior to the published withdrawal deadline notice for lack of attendance at the discretion of the instructor.

If an instructor drops a student, the student is notified by a letter from the Registrar’s Office sent to the student’s address of record. The effective drop date is stated in the letter. A student who desires to remain in class must contact the instructor within the time specified in the instructor’s letter. With the instructor’s approval, a student may be reinstated. Students dropped for excessive absences prior to the published withdrawal deadline receive a grade of “W.”

SCHOLASTIC STANDARDS: GRADES AND GRADE POINT AVERAGE

Final grades are reported for each student for every course according to the following grading system.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Grade Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4 points</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3 points</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2 points</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td>1 point</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0 points</td>
</tr>
<tr>
<td>WX</td>
<td>Progress; re-enrollment required</td>
<td>Not Computed</td>
</tr>
<tr>
<td>WX</td>
<td>Withdrawn</td>
<td>Not Computed</td>
</tr>
<tr>
<td>CR</td>
<td>Credit</td>
<td>Not Computed</td>
</tr>
</tbody>
</table>

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit hours the course carries. For example, a student who takes a three hour course and earns an “A” accumulates 12 grade points for that course. A student’s grade point average is computed by adding the total grade point values for all courses and dividing by the number of credit hours attempted during the same period. For example, a student who takes the following courses and earns the following grades has a grade point average 2.93:

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-hour course</td>
<td>A</td>
<td>8</td>
</tr>
<tr>
<td>3-hour course</td>
<td>B</td>
<td>9</td>
</tr>
<tr>
<td>4-hour course</td>
<td>B</td>
<td>12</td>
</tr>
<tr>
<td>3-hour course</td>
<td>C</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credit Hours: 12
Total Grade Points: 35
35 + 12 = 2.93

For repeated courses, only the latest grade earned is included in cumulative grade point averages.

Transcripts do, however, indicate all work completed in the District, even if the latest grade is lower than a preceding grade. When a student withdraws from a course being repeated, the cumulative grade point average is calculated by using the immediately preceding grade in the same course.

If a student believes an error has been made in determining a course grade, the instructor or appropriate division office should be contacted as soon as possible. Requests for grade changes will not be considered later than two years following the last day of the semester for which the grade was assigned.

An incomplete grade “I” may be given when an unforeseen emergency prevents a student from completing the work in a course. The “I” must be converted to a performance grade (one with a grade point value) within ninety days after the first day of classes in the subsequent regular semester. If the work is not completed after ninety days, the “I” is converted to a performance grade.

An Incomplete Contract is used to convert an incomplete grade to a performance grade and states the requirements for the satisfactory completion of the course. The Incomplete Contract must be agreed upon and signed by the instructor, the student and the division chairperson and submitted with the final grade report. When an Incomplete Contract must be submitted without the student’s signature, the instructor must include a statement indicating that the student is aware of and in agreement with the contract.

Students who do not complete course requirements may receive a “WX” grade when the instructor determines that reasonable progress has been made and when the student can re-enroll for course completion prior to the certification date in the next regular semester. If the student re-enrolls and completes the course requirements, the “WX” remains for the first enrollment; a performance grade is given for the second
IV. EDUCATIONAL AND SPECIAL OPPORTUNITIES

ACADEMIC TRANSFER STUDIES

Students who desire to earn a bachelor's degree may complete the first two years at this college before transferring to a four-year institution. The academic transfer curriculum is coordinated with senior colleges and universities to facilitate the transfer of credits to these schools.

TECHNICAL/OCCUPATIONAL PROGRAMS

Students who desire to enter a chosen field as a skilled employee after one or two years of college work may enroll in one of the many Technical/Occupational Courses offered by the College. Technical/occupational courses carry credits to these schools.

These programs are established only after studies verify that employment opportunities will exist at the time the student completes training. The College attempts to match the programs to the College offerings are coordinated with senior colleges and universities to facilitate the transfer of credits to these schools.

CREDIT BY EXAMINATION

Students who believe they already meet the requirements of a course by experience or previous training may request credit by examination. The Counseling Center has a list of courses available through this method. The examination may be a section of the College Level Examination Program (CLEP), Advanced Placement Exams (CEEB), or a teacher-made test, depending on the course.

The student pays an examination fee for each course examination. This fee must be paid prior to taking the examination and is not refundable. The colleges credit by examination program is coordinated with similar programs of four-year institutions. Final acceptance of credit by examination for specific degree purposes is determined by the degree-granting institution. Students planning to use credit by examination to meet degree requirements at other institutions should check the requirements of the receiving institution.

Students must be currently enrolled at this college to receive credit by examination. Students may not request credit by examination in courses for which they are currently enrolled. Students may earn as many credits through examination as their ability permits and needs require, but the last 15 credit hours required for graduation in any degree or certificate program may not be earned through credit by examination except as approved by the Vice President of Instruction.

Credit by examination may be attempted only one time in any given course, and a grade of "C" or better must be earned in order for credit to be recorded. A student may use credit by examination for only three (3) credit hours to apply toward the degree requirements in history and only three (3) credit hours to apply toward the degree requirements in government. (CLEP exam does not meet this requirement.)

NON-TRADITIONAL LEARNING

The College is committed to serve students and the community in the most effective manner possible while maintaining high standards of education. Students learn in a variety of ways and through a multitude of experiences; therefore, the College shall assess these learning activities and grant equivalent college credit according to the following guidelines:

1. A student must be currently enrolled in the College to receive equivalent credit for non-traditional learning.
2. Credit may be granted for non-traditional learning as it relates to specific courses offered by the college assessing the learning experiences. Credit will be awarded on a course by course basis only.
3. A student is required to complete at least 12 semester hours of course work with the District prior to awarding of equivalent credits for non-traditional activities. The "CR" grade is awarded for non-traditional course work accepted for credit.
4. Credit may be granted for occupational courses approved by the Texas Education Agency.
5. The number of equivalent credits awarded may not exceed the total number of credits required for the student's specific associate degree objective. No graduation, residency, degree or program requirements will be waived as a result of credits earned as provided by this policy.

Students desiring to take advantage of this opportunity should consult with the College Advocate For Non-Traditional Learning for additional information. Students making application for assessment of prior learning through life experiences are required to enroll in a Human Development Course to facilitate the process.

FLEXIBLE ENTRY COURSES

In keeping with its commitment to meet individual educational needs, the College makes available Flexible Entry Courses. These courses are often self paced, allowing students to work at their own speed. Students are cautioned to be aware of the time specified by the College as to when the course requirements need to be completed. Students may register for Flexible Entry Courses during the pre-semester registration periods or at regular times during the semester. Students should check with the Registrar to determine times for registration in these courses. Approval must be obtained for enrollment.

TELECOURSES

Students may take a variety of college credit courses via television. The schedule of telecourses varies each semester and may include courses in anthropology, astronomy, business, earth science, ecology, biology, English, economics, government, history, humanities, psychology, religion, and sociology. Content and credit for these courses
are the same as for similar courses taken on campus.

Telecourses include the viewing of television programs on KERA/Channel 13 and on cable, plus reading, study guide and writing assignments. Students come to the campus for an orientation session at the beginning of the semester, for one to four discussion meetings, for three or four tests, and for laboratory sessions in science courses having laboratories. These campus visits are normally scheduled for a time convenient to the students. Field trips are required in some courses. Telecourses may be taken in conjunction with on-campus courses or by persons who are not enrolled in any on-campus courses. Students may register for telecourses by mail or through the regular on-campus registration process.

COOPERATIVE WORK EXPERIENCE EDUCATION

Students may enrich their education in certain career programs by enrolling in Cooperative Work Experience Courses. These courses allow students to combine classroom study with on-the-job experience at training stations approved by the College. Students must have completed at least two courses in their occupational major to be eligible for Cooperative Work Experience.

A full-time student (carrying 12 credit hours or more) must take two courses which relate to the student's work experience, and a maximum of 4 credit hours may be in Cooperative Work Experience. Part-time students (carrying under 12 credit hours) may take a maximum of 4 credit hours of work experience. They must be concurrently enrolled in a course related to their work experience (or a support course to be applied toward their occupational degree or certificate).

To enroll in a Cooperative Work Experience Course, students must have the approval of their instructor/coordinator. Course credit is awarded at the rate of 1 credit hour for each 80 hours of approved work experience during the semester. The 80 hours is approximately 5 hours per week during a fall or spring semester.

Additional information regarding Cooperative Work Experience may be secured from the Cooperative Education Office. The Technical/Occupational Programs having work experiences are indicated in the Course Descriptions Section of this catalog.

INTERNATIONAL STUDIES

Selected programs combine learning experiences with foreign travel. This travel-study is under the direct supervision of the faculty. These courses support specific learning objectives, and college credit may be earned by students who successfully meet the objectives.

HUMAN DEVELOPMENT

In Human Development Courses students can explore the relationship between meaningful education and some of the dilemmas or questions commonly brought to college. "Why learn" and "how to learn" are put in a perspective of "who is to learn." These courses are taught by counselors and other qualified instructors. They offer academic credit which transfers to most surrounding four-year institutions. The courses in human development enhance the total curriculum and blend in with the total concept of the community college.

EVENING AND WEEKEND COLLEGE

In dynamic, growing communities such as those encompassing this college, people have continuing educational needs, yet many of them have work schedules and personal involvements which make it impossible for them to attend college during normal daytime hours. For this reason, evening and weekend college courses offer the same broad spectrum of programs available for full-time day students. Courses are offered both on campus and at selected community locations.

Evening and weekend courses offer high quality instruction, excellent facilities, and a variety of student services, including counseling, health, library, bookstore, food services, financial aid, and recreation. Instructors are selected from the College's own full-time staff, from outstanding Dallas area educators, and from other professionals interested in teaching. To enroll in the evening and weekend courses, contact the Director of Admissions. Information may also be obtained by contacting the Extended Day Administration Office.

SERVICEMEN'S OPPORTUNITY COLLEGE

In cooperation with other community colleges in the United States, colleges of the Dallas County Community College District participate in the Servicemen's Opportunity College. Through this program, students can plan an educational experience regardless of location requirements of the military. For further information, contact the Admissions Office.

COMMUNITY SERVICE PROGRAMS

Community Service Programs are an important element in the concept of the community college. They greatly expand the available opportunities for persons of all ages to participate in college programs and activities. And courses are offered throughout the year to meet a variety of community needs.

Community Service Programs are offered in the following categories:

- Continuing education opportunities for individuals who want to broaden their knowledge or learn new skills for different occupational fields.
- Cultural and community enrichment studies for groups and individuals seeking to enhance their quality of life.
- Personal entertainment and recreation for individuals wishing to explore new activities for personal growth and enjoyment.
- Resources for industry, government and professional
groups needing to supplement their own training and development programs. Community Service Programs offer short courses, seminars, workshops, and institutes. The type of course offering is determined by the nature of the material, instructional approach, and needs of the requesting individuals or organizations. Generally there are no entrance requirements or examinations. Some courses may have age restrictions or may require a certain amount of experience for enrollment. Admission is on a first-come, first-served basis. All one need do to register is fill out the form and pay the fee. Classes and activities are held on campus and in a variety of locations throughout the community. Most classes and activities are conducted on weekday evenings, but many are also held on weekdays and weekends.

Community Service Program instructors are professional men and women from the community who have proven experience in their fields. Their objective is to share their knowledge, insight, and experience, and to insure that students acquire a greater perspective of the subject and have a meaningful experience. Although most Community Service Courses do not require textbooks, the nature of some special offerings do require the purchase of books or supplies. Students are notified of the need for texts and other materials at the first meeting. Library privileges are available for Community Service students during the term they are registered. Contact the Community Service Office for further information.

CONTINUING EDUCATION UNITS (CEU'S)
Although no college credit is awarded for Community Service class participation, Continuing Education Units are transcripted for successful completion of most courses. The CEU, by nationwide definition, is "ten contact hours of participation in an organized continuing adult education or extension experience under responsible sponsorship, capable direction, and qualified instruction." The CEU is a means of recording and accounting for the various continuing education activities one accumulates over a period of years.

V. STUDENT SERVICES

The College is committed to providing opportunities for each individual student's total educational development. Specific student services are integrated with the instructional program of the College to address individual needs for educational, personal, social, cultural, and career development.

STUDENT DEVELOPMENT AND ACTIVITIES
The Student Development Office plans and presents programs and activities for the general campus population. Programs often are coordinated with the various instructional division to provide students with valuable educational experiences. Many programs and activities are offered to help the student develop life enriching skills. Other programs provide students with interesting and entertaining ways to spend leisure time on campus. The goal of all programs is to facilitate the development of cultured and well-rounded human beings. Student participation in the operation of programs is highly encouraged.

GUIDANCE AND COUNSELING SERVICES
Individuals may find the counseling services helpful as they make plans and decisions in various phases of their development. For example, counselors can assist students in selecting courses of study, determining transferability of courses, choosing or changing careers, gaining independence, and confronting problems of daily living. Confidential assistance is provided by the counseling staff in the following areas:

1. Career counseling to explore possible vocational directions, occupational information, and self-appraisals of interest, personality and abilities.
2. Academic advisement to examine appropriate choices of courses, educational plans, study skills, and transferability of courses.
3. Confidential personal counseling to make adjustment and life decisions about personal concerns.
4. Small group discussions led by counselors and focusing on such areas as interpersonal relationships, test anxiety, and assertiveness. Counselors will consider forming any type of group for which there is a demand.
5. Standardized testing to provide additional information about interests, personality and abilities needed in planning and making decisions.
6. Referral sources to provide indepth assistance for such matters as
legal concerns, financial aid, tutoring, job placement, medical problems, or psychological problems.

TUTORING SERVICES
For students needing special temporary assistance in course work, tutoring services are available. Students are encouraged to seek services through self referral as well as through instructor referral.

TESTING AND EVALUATION CENTER
The Testing Center administers various tests. Types of tests include:
1. Psychological tests of personality, vocational interests, and aptitudes.
2. Academic tests for college instructional programs. Many courses are individualized and self-paced, permitting students to be tested at appropriate times.
3. Assessment tests for appropriate class placement. These tests are very strongly recommended to insure student success.
4. Tests for selected national programs.

HEALTH CENTER
Health is the most fundamental human need, and a high standard of physical and mental health is a basic right of every human being. The Health Center helps maintain and promote the health of students, faculty, and staff. Services provided by the Health Center include education and counseling about physical and emotional health, emergency first aid treatment, referral services to community agencies and physicians, free tuberculin skin tests and other screening programs, and programs of interest to students and faculty. Students are encouraged to make an appointment with the nurse to discuss specific health problems. No information on a student's health is released without written permission from the student, except as required by law.

SERVICES FOR HANDICAPPED STUDENTS
The Services for Handicapped Students Office offers a variety of support services to enable handicapped students to participate in the full range of college experiences. Services are arranged to fit the individual needs of the student and include interpreters, notetakers, tutors, mobility assistants, loan of wheelchairs, readers for the blind, and tape recorders. Handicapped students should contact the office at least one month before registration. The office will provide students with an orientation session and registration information. For additional information, contact the Services for Handicapped Students Office or the Counseling Center.

STUDENT ORGANIZATIONS
Information about participation in any organization may be obtained through the Student Development Office. The development of student organizations is determined by student interest. Categories of organizations include:
- Co-curricular organizations pertinent to the educational goals and purposes of the College.
- Social organizations to provide an opportunity for friendships and promote a sense of community among students.
- Service organizations to promote student involvement in the community.
- Pre-professional and academic organizations to contribute to the development of students in their career fields.

INTERCOLLEGIATE ATHLETICS
Participation on athletic teams is voluntary on a non-scholarship basis for students who meet requirements established by the Metro Athletic Conference. For more information regarding eligibility, rules, standards, and sports offered, contact the Physical Education Office.

INTRAMURAL SPORTS
The College provides a campus intramural program for students and staff and encourages participation. For additional information contact the intramural director in the Physical Education Office or the Student Development Office.

HOUSING
The College does not operate dormitories of any kind or maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing.

CAMPUS SECURITY
Campus security is required by State law to “protect and police buildings and grounds of state institutions of higher learning.” Because all laws of the state are in full force within the campus community, specially trained and educated personnel are commissioned to protect College property, personal property, and individuals on campus. Security officers are certified peace officers. They have the power to enforce all Texas laws and rules, regulations, and policies of the College, including the Code of Student Conduct.
VI. FINANCIAL AID

Students who need financial aid to attend college can apply for grants, scholarships, loans, or job opportunities. These aid opportunities are provided in the belief that education should not be controlled by the financial resources of students.

Students needing financial assistance are encouraged to complete an application well in advance of registration for the semester they wish to attend. The Financial Aid Office prepares a realistic financial aid package.

Some of the grant, scholarship, loan, and job programs available to students are outlined in the following paragraphs. Contact the Financial Aid Office for detailed information about any program and deadlines for applying. Some of the colleges have established priority deadlines for state grants and scholarships.

PELL GRANT

The PELL Grant is a federally funded program designed to help undergraduate pre-baccalaureate students continue their education. The purpose of this program is to provide eligible students with a “foundation” of financial aid to assist with the costs of attending college.

All students applying for financial assistance through the College must apply for a PELL Grant. Other types of financial aid may be awarded if the student applies and qualifies. Eligibility for PELL Grant is based on financial need and satisfactory academic progress. Applications and additional information concerning the PELL Grant Program are available in the Financial Aid Office and in the counseling offices of most high schools. The application process takes approximately 4-6 weeks. In response to the PELL Grant application, a Student Aid Report (SAR) will be mailed directly to the student. The student should immediately review the SAR to make sure it is correct and bring it to the Financial Aid Office. The exact amount of the PELL Grant award will depend upon the aid index on the SAR and the number of hours for which the student enrolls. In order to be eligible, a student must enroll for at least 6 credit hours each semester. Students must apply each year.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)

The SEOG is a Federal program to help pre-baccalaureate students with eligibility based solely on need. The amount of a SEOG award depends on the individual student’s needs, the total number of applicants, and funds available. To be eligible, students must enroll for at least 6 credit hours, make satisfactory progress toward their educational goal and have financial need. Students must apply each year for the SEOG.

TEXAS PUBLIC EDUCATIONAL GRANT (TPEG)

The TPEG is a State program to assist students attending state-supported colleges. To be eligible, students must make satisfactory progress toward the educational goal and have financial need according to an approved needs analysis system. Grants are awarded by eligibility on a first-come, first-served basis for credit and some non-credit courses. Students must apply each year for the TPEG.

TEXAS PUBLIC EDUCATIONAL — STATE STUDENT INCENTIVE GRANT (TPE-SSIG)

The TPE-SSIG is a state program. To qualify, students must enroll for at least 6 credit hours per semester, make satisfactory progress toward their educational goal, be a Texas resident, have financial need. Grants are awarded by eligibility on a first-come, first-served basis. Students must apply each year for the TPE-SSIG.

HINSON-HAZLEWOOD COLLEGE STUDENT LOAN PROGRAM

The Hinson-Hazlewood College Student Loan Program is a State operated, federally insured student loan program. To qualify, students must enroll on at least a half-time basis (6 credit hours in the fall or spring semester), be a Texas resident, have financial need. Students must apply for all other types of aid before applying for this loan, and they must apply each year to renew the loan. New students must have applied for and been denied a Texas Guaranteed Student Loan before applying for this loan. Repayment begins nine to twelve months after the student ceases to be enrolled for at least one-half the normal course load.

Repayment may extend up to 10 years, but a minimum payment of $30 a month is required. The interest rate is 9% a year (adjusted).

STUDENT EMPLOYMENT

The College Work/Study Program is a Federal program to assist students through both on and off campus. To be eligible, students must demonstrate financial need, be enrolled in 6 or more credit hours, and make satisfactory progress toward their educational goal. Students will generally work 20 hours per week. The Student Employment Program provides some jobs on campus for students who do not meet the financial need requirement of the College Work/Study Program. Students must be enrolled in 6 or more credit hours and make satisfactory progress toward their educational goal.

SOCIAL SECURITY ADMINISTRATION

The Social Security Administration offers benefits to students who qualify. However, most students who are not currently receiving Social Security Educational Benefits will not be eligible in Fall, 1982, because of a phase out of this program as part of the Omnibus Budget Reconciliation Act. Students need to contact the regional Social Security Administration Office regarding eligibility. The Admissions Office on campus acts as liaison between students and the Social Security Administration after eligibility has been established.

BUREAU OF INDIAN AFFAIRS

The Bureau of Indian Affairs offers educational benefits to American Indian students. Students need to contact the regional Bureau of Indian Affairs Office regarding eligibility.

Bureau of Indian Affairs
1100 Commerce - Room 2C44
Dallas, Texas 75202

VOCATIONAL REHABILITATION

The Texas Rehabilitation Commission offers assistance for tuition and fees to students who are vocationally handicapped as a result of a
VETERANS' BENEFITS PROGRAM

The Veterans' Benefits Program is coordinated by the Veterans' Affairs Office of the College. Services of this office include counseling the veteran concerning benefits, Veterans Administration loans, Veterans Administration work study programs, financial problems, career counseling, and other areas related to the veteran's general welfare. When testing indicates that a veteran should enroll in developmental courses such as reading, writing, or math, the student may pursue these courses with no charge to his or her benefits. Tutoring services are also available to the veteran who is having learning difficulties in one or more subjects. The veteran student should be aware of some of the Veterans Administration guidelines. Violation of these guidelines causes complications in receiving monthly benefits or loss of those benefits.

1. Class attendance is mandatory. Failure to attend class results in suspension from class.
2. A veteran student who plans to enroll in developmental courses must be tested and show a need in basic skills before enrolling in these courses.
3. A veteran student enrolled in television courses must be pursuing more on-campus credit hours than hours taken by television.
4. A veteran student who has successfully completed credit hours at another college or university must submit a transcript from that college or university before applying for V.A. benefits. The transcript is evaluated and credit granted when applicable.
5. A veteran student must enroll in courses required for a degree program. Information on degree requirements may be obtained from the Registrar's Office.
6. A veteran student who withdraws or who is dropped from all courses attempted during a semester is considered as making unsatisfactory progress by the V.A. and may lose future benefits. A veteran student must also maintain a satisfactory grade point average as outlined in the catalog.

The above V.A. regulations are subject to change without notice.

Academic Compliance

Students should contact the Veterans' Affairs Office in order to be aware of current regulations and procedures.

HAZLEWOOD ACT

Under the Hazlewood Act certain veterans who have exhausted remaining educational benefits from the Veterans Administration can attend Texas state-supported institutions and have some fees waived. To be eligible, students must have been residents of Texas at the time they entered the service, have an honorable discharge and must now be residents of Texas. To apply, students must submit a Hazlewood Act application and a copy of their discharge papers to the Financial Aid Office.

ACADEMIC PROGRESS REQUIREMENT

Students who receive financial aid are required by government regulations to make measurable progress toward the completion of their course of study. For a detailed description of the requirements, contact the Financial Aid Office.

The 2.0 Grade Point average (GPA) Requirement

a. Students funded for full-time course loads must complete a full-time course load with a minimum GPA of 2.0 each semester an award is made.
b. Students funded for part-time course loads are expected to achieve a minimum GPA of 2.0 on all courses funded each semester. No drops or withdrawals are allowed.

Academic Compliance

a. If the 2.0 GPA requirement is not met once, a warning notice is mailed to the student. Transfer students entering the District on probation are considered to be in this category.
b. If the 2.0 GPA requirement is not met twice, no award is made for six months.
c. A third chance may be approved at the discretion of the Financial Aid Director after the six-month suspension period. The student must sign acknowledgement of conditional approval before the award is made. If the 2.0 GPA requirement is not met three times, no award is made for two years.
d. A fourth chance may be approved at the discretion of the Financial Aid Director after the two-year suspension period. If approved, the student must sign a warning notice before the award is made.

Students may appeal the Financial Aid Director's decisions to the Vice President of Student Service. The appeal must be in writing.

The Financial Aid Office reserves the right to review and cancel awards at any time because of (1) failure to maintain an acceptable academic record. (2) failure to meet the minimum course load requirements. (3) changes in the financial status of the student or the student's family, or (4) failure by the student to meet any regulations governing the program from which the student is receiving aid. It is understood that the student is aware of the conditions under which aid is offered and agrees to meet all requirements.

SHORT-TERM LOANS

The College offers students short-term loans. Normally, a loan would not exceed tuition, fees, and books, but check with the Financial Aid Office for further details. The loan must be repaid within sixty to ninety days or before the end of the semester in which the money is borrowed.

JOB PLACEMENT SERVICES

The Placement Office is available to assist any student in job placement, either on or off-campus. Job openings are listed in the Placement Office. The Placement Office also works directly with students and community employers to locate jobs and students qualified to fill them. Career placement assistance is available for students nearing the end of their course of study. In addition to listing full-time career opportunities, the Placement Office also assists students in developing resumes, preparing for interviews, and Career placement options.
enrollment. If the student does not re-enroll, the "WX" is converted to a performance grade.

**ACCEPTABLE SCHOLASTIC PERFORMANCE**

College work is measured in terms of credit hours. The number of credit hours offered for each course is given with the course description. Acceptable scholastic performance is the maintenance of a grade point average of 2.0 (on a 4.0 scale) or better. Students may not be graduated from any degree or certificate program unless they have a cumulative grade point average of 2.0 or better. Grade points and hours earned in courses numbered 99 and below are included in computing a student's scholastic standing, but they cannot be used to meet graduation requirements.

**HONORS**

Full-time students who complete at least 12 hours of credit and earn a grade point average of 3.00-3.49 are listed on the College’s Honor Roll. Full-time students who complete at least 12 hours of credit and average 3.50-4.00 are placed on the Vice President’s Honor List. Part-time students who take 6-11 credit hours and maintain a 3.5 or higher grade point average are placed on the Academic Recognition List.

**SCHOLASTIC PROBATION AND SCHOLASTIC SUSPENSION**

Full-time and part-time students who have completed a total of 12 credit hours are placed on probation if they fail to maintain a 2.0 cumulative grade point average. Students may be removed from probation when they earn a 2.0 cumulative grade point average. Students on scholastic probation who achieve either a cumulative grade point average of 1.5 or above or a previous semester grade point average of 2.0 or above are continued on scholastic probation. Students on probation who do not meet the requirements for continued probation are placed on scholastic suspension. Students on suspension for the first time may not register for the immediately following semester or summer session without special permission. Suspended students must file a petition for readmission. The conditions for readmission are established and administered by the Vice President of Student Services.

**GRADE REPORTS**

A grade report is issued to each student at the end of each semester and gives the grade earned in each course that semester. A transcript is the official record of college work and gives all grades earned throughout the college career. Transcripts are withheld from students who have not met financial or other obligations to the College. (See Student Codes and Expectations: “Financial Transactions with the College.”)

**WAIVING OF SCHOLASTIC DEFICIENCY**

Any student in an academic transfer program may transfer to a career program. In such a case, the student may choose to have any grades below "C" disregarded. However, the procedure for disregarding low grades may only be exercised while the student is in a career program. If the student changes to an academic transfer program, the original conditions of the academic transfer program must be followed, including the calculation of a cumulative grade point average of all college credits earned. The procedure for waiving scholastic deficiency applies both to students of this college and to students transferring from other institutions. The student who wishes to use the procedure for waiving scholastic deficiency must be state in writing to the Registrar prior to registration and should inform a counselor of such intentions during the pre-registration advisement session.

**TRANSCRIPTS OF CREDIT**

Upon the written request of a student, the Registrar’s Office will send an official transcript to the individual student or to any college or agency named. The transcript may be withheld, however, until the student has settled all obligations with the College.

**CLASSIFICATION OF STUDENTS**

**Freshman:**
A student who has completed fewer than 30 credit hours.

**Sophomore:**
A student who has completed 30 or more credit hours.

**Part-time:**
A student carrying fewer than 12 credit hours in a given semester.

**Full-time:**
A student carrying 12 or more credit hours in a given semester.

**LEARNING RESOURCES CENTER AND LIBRARY OBLIGATIONS**

The Learning Resources Center (LRC) supports classroom instruction. It is a place where students can find books and non-print materials to supplement classroom learning or where — if they choose — they can actually take a course. The LRC helps students to learn in their own ways and at their own speeds. It provides books, slides, tapes, and films. The College has a growing collection of books on a wide variety of general information areas to support Academic Transfer Programs and Technical/Occupational Programs. In addition, there are special collections of career materials and pamphlets. The library also subscribes to current popular and technical periodicals as well as to area and national newspapers.

Classroom Resource Services is a part of the LRC and supports the instructional program. It is responsible for all campus audio-visual equipment and non-print materials used in the classroom or by individual students and for the production of instructional materials.

Willful damage to library materials (or property) or actions disturbing users of the library may lead to the loss of library privileges. Damage cases are referred to the appropriate authorities for further action. All books and other library materials must be returned before the end of each semester. No transcript is issued until the student's library record is cleared.
VII. STUDENT RIGHTS AND RESPONSIBILITIES

SYNOPSIS:
   a. Preambles
   b. Definitions
2. Accountability with Policies, Rules, Regulations, and Procedures
   a. Basic Standard
   b. Enumerated Standards
      (1) Student Disciplinary
      (2) Use of District Facilities
      (3) Speech and Activity
      (4) Disruptive Activities
      (5) Alcoholic Beverages
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3. Other Offenses
4. Disciplinary Proceedings
   a. Administrative Disposition
      (1) Investigation
      (2) Summons
      (3) Disposition
   b. Hearing Committee
      (1) Composition
      (2) Notice
      (3) Preliminary Matters
      (4) Procedure
      (5) Evidence
      (6) Record
   c. Faculty/Student Board of Review
      (1) Right to Appeal
      (2) Board of Review
      (3) Consideration of Appeal
      (4) Petition for Administrative Review
5. Penalties
   a. Authorized Disciplinary Penalties
5. Parking and Traffic Regulations


a. Preamble

The primary goal of the District and its Colleges is to help students of all ages achieve effective living and responsible citizenship in a changing world. The District's primary concern is the student. Each college attempts to provide an environment which views students as a whole person encouraging and inviting them to learn and grow independently, stressing the process and the acquisition of skills. Such an environment presupposes both rights and responsibilities.

The responsibility to secure and to respect general conditions conducive to the freedom to learn and to grow is shared by all members of the college community. Dallas County Community College District has a duty to develop policies and procedures which provide and safeguard this liberty and this environment. The purpose of the statements which follow is to present the essential provisions for student freedom to learn and grow and the responsibilities which arise therefrom as established by the Dallas County Community College District Board of Trustees.

b. Scope

(1) This code applies to individual students and states the function of student, faculty, and administrative staff members of the college in disciplinary proceedings.

(2) The college has jurisdiction for disciplinary duties over a person who was a student at the time he or she violated a Board policy, college regulations, or administrative rule.

c. Definitions

In this code, unless the context requires a different meaning:

(1) "Class day" means a day on which classes before semester or summer session final examinations are regularly scheduled or on which a semester or summer session final examinations are given.

(2) "Classroom of Student Services" means the Vice President of Student Services, his delegate(s) or his representative(s).

(3) "Disciplinary Division Development" means the Director of Student Development, his delegate(s) or his representative(s).

(4) "Director of Campus Security" means the Director of Campus Security, his delegate(s) or his representative(s).

(5) "President" means the president of a college of the Dallas County Community College District.

(6) "Student" means a person eligible to enroll in a college of the Dallas County Community College District, or a person accepted for admission to the college.

(7) All vice presidents, deans, associate deans, assistant deans, directors, and division chairmen of the college for the purposes of this code shall be called associate vice presidents and chairmen.

(8) "Complaint" is a written summary of the essential facts constituting a violation of a Board policy, college regulations, or administrative rule.

(9) "Board" means the Board of Trustees, Dallas County Community College District.

(10) "Chancellor" shall mean the Chancellor of the Dallas County Community College District.

(11) "Major violation" means one which can result in an adverse effect on the college or division.

(12) "Minor violation" means one which can result in any disciplinary action other than suspension of expulsion from the college or division.

Acquaintance with Policies, Rules, Regulations

The Student Rights and Responsibilities statement is subject to change by action of the Board of Trustees. Each student is expected to know and be familiar with student codes, rules, and regulations of the college, copies of which shall be available to each student for review at the offices of the Vice President of Student Services.

The college will hold each student responsible for compliance with these policies, rules, and regulations. The student is responsible for obtaining published materials to update the items in this statement. Students are also expected to comply with all federal, state, and local laws.

The college may require a student to conduct an off-campus trip which is likely to have an adverse effect on the college or educational process.

3. Campus Regulations

a. Basic Standard: The basic standard of behavior requires a student to:

(1) Not to violate any municipal, state, or federal laws.

(2) Not to interfere with or disrupt the orderly educational process of any college of the Dallas County Community College District or any public community facility.

(3) Be responsible for obtaining published materials to update the items in this statement.

A student is not entitled to greater immunities or privileges before the law than those enjoyed by other citizens generally.

b. Free Inquiry and Expression: Free inquiry and expression are essential parts of this statement. Students of all ages achieve effective living and responsible citizenship in a changing world. The District functions as an educational institution which appears to be compatible with the law, to show respect for properly constituted authority, and to maintain, in the Student Development Office, the following cards distributed to all students.

(1) "Board" means the Board of Trustees.

(2) "Chancellor" means the Chancellor of the Dallas County Community College District.

(3) "Director of Campus Security" means the Director of Campus Security, his delegate(s) or his representative(s).

(4) "President" means the president of a college of the Dallas County Community College District.

(5) "Student" means a person accepted for admission to the college.

(6) "Teacher" means the faculty member who taught the course.

(7) "Class" means one which can result in an adverse effect on the college or division.

(8) "Minor violation" means one which can result in any disciplinary action other than suspension or expulsion from the college or division.

(9) "Major violation" means one which can result in an adverse effect on the college or division.

Disruptive Activities: Any activity which interrupts the schedule of activities or processes of education may be classified as disruptive, thus, anyone who initiates any way of gathering leading to disruptive action may be violating college regulations and/or state law.

The following conditions shall normally be sufficient to determine whether an action is disruptive:

(1) Blocking or in any other way interfering with access to any part of the college.

(2) Inciting others to interfere and/or participating in violent behavior, e.g., assault, threat of, or vulgar language such as, but not limited to, any form of behavior actuated out of the purpose of inciting and influencing others.

(3) Hampering, obstructing, or interfering with any other form of public gathering without prior approval of the college.

(4) Conducting any activity which causes college officials to be drawn on their duties to intervene, supervise or observe the activity in the interest of maintaining order at the college.

Furthermore, the Vice President of Student Services shall enforce any appropriate action in accordance with the Texas Education Code, Section 36 (following page).

Education Code Section 36

(1) No person or group of persons acting in concert may willfully engage in disruptive activity or disrupt a lawful assembly on the campus or property of any public institution of higher education or public or private school or college.

(2) For the purposes of this section, disruptive activity means:

(1) Obstructing or restraining the passage of persons in an exit, entrance, or hallway of any building without the authorization of the administration of the school.

(2) Interference or assistance of a building for the purpose of interfering with any building without the authorization of the administration of the school.

(3) Preventing or attempting to prevent by force or violence or the threat of force or violence any lawful assembly authorized by the school administration.

(4) Engaging in force or violence with a threat of force or violence a lawful assembly or exercise.

(5) Obstructing or restraining the passage of any person at an exit or entrance or in any other public place.

(6) Engaging in force or violence with a threat of force or violence by threats or acts or by the presence of any person or thing authorizes or7, or facilitates or is calculated to facilitate the administration of the school.

(7) For the purposes of this section, a lawful assembly is defined as any gathering in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to a reasonable fear that force or violence is likely to occur.

(8) A person who violates any provisions at sections guilty of a misdemeanor and upon conviction is punishable by a fine not to exceed $100 or by confinement in jail for not less than 10 days nor more than 90 days.

(9) Any person who commits the third time of violating the section shall not thereafter be eligible to attend any school, college, university, or any other institution of higher education in the State of Texas for a period of two years from such conviction.

(10) Nothing herein shall be construed to infringe upon any right of free speech or expression guaranteed by the Constitution of the United States or the State of Texas.

(11) Drinking of Alcoholic Beverages: Each college of the Dallas County Community College District specifically forbids the drinking or possession of alcoholic beverages on campus.

(12) Drugs: Each college of the Dallas County Community College District specifically forbids the possession, use, sale, production or manufacture of drugs, narcotics, or hallucinogens on or off campus.

(13) Gambling: State law expressly forbids gambling of any kind or form and it is a crime.
violation of state law, is opposed to and will endeavor to prevent hazing activities which involve any of the following factors singly or in conjunction:

(a) Any actions which seriously impair the physical well-being or mental, physical, or moral development of any student, and are, therefore, accordingly specifically prohibited;

(b) Acts of hazing by nature brutal, degradation, or morally offensive.

(c) Acts which have a tendency to encourage or force, by nature brutal, degradation, or morally offensive.

The Institutional policy is one discouraging all activities incompatible with the dignity of the college student and exercise disciplined connection over such activities from reasonable control, regulation, and discernment. From the institution's point of view, the reasonable for the control of hazing activities, it is engaged in by any organization, rests in the elected and responsible officials of the group, as individuals, and in the group as a whole, since it sets and approves the policy to be followed in these matters. It is accorded recommend that all groups be informed that both their officers and the group as a whole, will be held singularly and collectively responsible for any actions considered to be "untrue," immoral, and responsible with the policy limits detailed above. Individual activity falling in this category shall be handled on an individual basis and with discretion by the college.

(iii) Preparing a complaint based on the allegation of an act which is classified as an institutional offense under either state or federal law.

4. Disciplinary Proceedings

(a) Academic Dishonesty

(i) The Vice President of Student Services may initiate disciplinary proceedings against a student accused of academic dishonesty.

(ii) "Academic dishonesty" means either but is not limited to, cheating on a test, plagiarism, and collusional cramming.

(iii) All cases of cheating on a test includes:

(a) Copying from another student's test paper;

(b) Using, during a test, materials not authorized by the person in charge;

(c) Collaborating with another student during a test without authority.

(iv) By public, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an unadministered test.

(b) Substitute the name of another student or permitting another student to substitute for another student.

(c) Bribery of another person to obtain an unadministered test or information about an unadministered test.

(d) "Plagiarism" means the appropriation of another's written and the unauthorized incorporation of that work on one's written work offered for credit.

(ii) "Collusion" means the unauthorized collaboration with another person in preparing written work offered for credit.

(ii) Final Termination of the College

(a) No student may refuse to pay or fail to pay debt he owes to the college.

(b) No student may refuse to college a check, bill, or order with intent to defraud the college.

(c) A student's failure to pay the college the amount due on any debt, order, or bill before the 10th class after the day the business office sends written notice, unless the student has sufficiently reduced the balance on the check, draft, or order, is prima facie evidence that the student intended to defraud the college.

(d) The Vice President of Student Services may initiate disciplinary proceedings against a student who has allegedly violated the provisions of this section.

(iii) Other Offenses

(a) The Vice President of Student Services may initiate disciplinary proceedings against a student who

(i) Conducts himself in a manner that significantly interferes with college teaching, research, or administrative functions, or disciplinary proceedings or other college activities, including its public service functions, or with other activities on college premises;

(ii) Destroys or hazing college property or property of a member of the college community or campus visitor;

(iii) Knowingly makes false or misleading statements in response to requests from the college;

(iv) Engages in hazing, as defined by state law and college regulations;

(v) Falsely alters, alters, misuses college documents, records, or I.D. cards.

(b) Violations of regulations concerning parking, registration, student organizations, use of college facilities, or the time, place, manner and public expression;

(c) Fails to comply with directions of college officials acting in the performance of their duties;

(d) Conducts himself in a manner which adversely affects his suitability as a member of the student body and which endangers his own safety or the safety of others;

(e) Illegally possesses, uses, sells, or seizes drugs, narcotics, hallucinogens, or alcoholic beverages on or off campus;

(f) Commits an act which is classified as an institutional offense under either state or federal law.

5. Administrative Disposition

(a) Investigation, Conference and Complaint

(i) When the Vice President or a subordinate delegated by him shall determine that a student has allegedly violated the provisions of Board policy, college regulations, or the student's code of conduct unless the individual case is the only basis of the violation and, on refusal, the person giving the test

(a) Charges arising out of a single transaction or occurrence, or against one or more students, may be heard together or, either at the option of the Committee or under the direction of the committee, separate hearings may be held.

(b) At least three (3) days before the hearing date, the student concerned shall furnish the Committee Chairman with:

(i) The name of each witness he wants summoned and a description of all documentary and other evidence possessed by the college.

(ii) The hearing is to be held at a time and place set by the Committee Chairman, but a majority of the committee members shall review the Chairman's ruling, and will endeavor to decide the hearing in a timely manner.

(iii) The Student Discipline Committee may hold a hearing at any time if the student has actual notice of the date, time, and place of the hearing, and consents in writing thereto, and the President, or his designee representative in his absence, states in writing to the committee that, because of extraordinary circumstances the requirements are inappropriate.

(iv) In extraordinary circumstances the charge or charges are not considered minor violations or major violations, the student shall be given an opportunity to appear before the committee on the date and at the time and place specified, and shall advise the student of the following rights:

(a) To have his or her legal counsel present at the hearing.

(b) To appear alone or with legal counsel if charges have been elevated as a major violation or if the college is represented by legal counsel.

(c) To have his or her legal counsel present at the hearing.

(d) To present an witness who will testify against him;

(e) To present the student's witnesses, requiring the presentation of documentary and other evidence possessed by the college, and to offer other evidence and argue his behalf;

(f) To cross-examine each witness who testifies against him;

(g) To have a stenographic present at the hearing to make a stenographic transcript of the hearing, at the student's expense, but the student is not permitted to record the hearing by electronic means.

(h) To appeal to the appropriate Student Board of Review, subject to the limitations established by the Faculty-Student Board of Review section.

(i) The Vice President of Student Services may suspend a student who is in good standing who is required to comply with a letter sent under this section, or, at his discretion, the Vice President of Student Services may proceed with the hearing in the student's absence.

(j) Preliminary Matters

(1) Charges arising out of a single transaction or occurrence, or against one or more students, may be heard together or, either at the option of the Committee or under the direction of the committee, separate hearings may be held.

(ii) The student concerned shall furnish the Committee Chairman with:

(i) The name of each witness he wants summoned and a description of all documentary and other evidence possessed by the college.
(i) An objection that, it sustained, the Chairman of the Student Discipline Committee shall dismiss the hearing.
(ii) The name of legal counsel, if any, who appear with him;
(iii) The date, time and place of the hearing.
(iv) When the hearing is set under notice of or for other purposes, by the Student Discipline Committee, the student is entitled to furnish the information described in subparagraphs (i) through (iii) of this paragraph at any time before the hearing begins.

(a) The hearing shall be informal and the Chairman shall provide reasonable opportunities for witnesses to be heard. The college may be represented by such staff members of the President or Student Services' office, legal counsel, and other persons designated by the President. The hearing shall be open to the public as long as space is available, but may include the following persons on the invitation of the student:

(i) Representatives of the College's legal counsel;
(ii) A staff member of the College's legal counsel;
(iii) Member-conducting, or the finding and penalty shall be in writing. The student may include in the statement the reasons for the finding and penalty.

(i) Legal rules of evidence shall not apply to hearings before the Student Discipline Committee, and the Committee may admit and hear oral evidence that is relevant and pertinent to the issue at hand. The Committee shall exclude irrelevant, immaterial, or repetitious evidence.

(ii) The Committee shall recognize as privileged communications between a student and a member of the professional staff of the Health Center, Counseling and Guidance Center, or the Office of the Vice President of Student Services, when such communications were made in the course of performance of official duties and when the communications were understood by the staff member and the student to be confidential. Committee members may freely question any witness.

(iii) The Committee shall presume a student innocent of the alleged violation until it is proven by clear and convincing evidence that the student violated a Board policy, college regulation or administrative rule.

(iv) All evidence shall be offered to the Committee during the hearing and made a part of the hearing record. Documentary evidence may be admitted in the form of copies of excerpts, or by incorporation by reference. Real evidence may be photographed or described.

(v) A student defendant may not be compelled to testify against himself.

(a) The hearing record shall include: a copy of the notice of hearing, all documentary and other evidence admitted in evidence, written motions, pleadings, and any other materials considered by the Committee; and the Committee's decision.

(b) If notice of appeal is timely given as hereinafter provided, the Vice President of Student Services, at the direction of the Committee Chairman, shall send the record to the Board of Review, with a copy to the student appellant on or before the tenth class day after the notice of appeal is given.

3. Faculty-Student Board of Review

(a) Right to Appeal

(i) In those cases in which the disciplinary penalty imposed was as prescribed in the section on Penalties in the Student Discipline Code, the student may appeal the decision of the Student Discipline Committee, or the decision of the President, to the Faculty-Student Board of Review. Disciplinary actions taken under the section on Penalties, (i) Automatic suspension and Bar regulations, cannot be appealed beyond the Student Discipline Committee. A student appeals by giving written notice to the President or Vice President of Student Services on or before the third class day after the day the decision or action is announced. This written notice shall state: the name of the student, the date of the decision or action, the name of his legal counsel, if any, and a simple statement of the issues or questions the student desires to resolve.

(ii) Notice of appeal timely given suspends the imposition of penalty until the appeal is finally decided. Disciplinary action may be taken as authorized under the section on Disciplinary Disposition which authorizes the President to take immediate action in disciplinary action.

(b) Board Composition

(i) The President shall appoint Boards of Review to hear appeals under the rules. Each Board of Review shall have three faculty representatives and two student representatives, appointed by the President in alphabetical rotation from available members on the Review Panel.

(ii) The Review Panel shall have twenty-five (25) members, selected as follows:

(a) Fifteen (15) representatives from the faculty, recommended by the Faculty and appointed by the President of the Faculty Association and by the President of the College for three-year staggered terms.

(b) Ten (10) students shall be appointed by the President of the college for one-year terms. Student representatives shall be elected by the Student Government and must be a 2.0 average on all college work attempted at the time of the nomination and must not have a discipline record.

(c) The President shall instruct the Board of Review members on student disciplinary rules, policies and hearing procedures as soon as practicable upon their appointment.

(c) Consideration of Appeal

(i) Appeal to Board of Review. The Board of Review shall consider each appeal on the record of the Student Discipline Committee and, for good cause shown, original evidence not discovered or discovery evidence may be presented.

(ii) Upon timely appeal, the President shall select a Board of Review and shall notify the student appellant and the Vice President of Student Services of its decision, in writing, to the student as soon as practicable after the members are appointed.

(iii) Consideration of Appeal

(a) The Board of Review shall consider each appeal on the record of the Student Discipline Committee and for good cause shown, original evidence not discovered or discovery evidence may be presented.

(b) Upon timely appeal, the President shall select a Board of Review and shall notify the student appellant and the Vice President of Student Services of its decision, in writing, to the student as soon as practicable after the members are appointed.

(c) Final decision of the Board of Review shall be in writing. The student may include in the statement the reasons for the final decision.

(d) The Board of Review shall meet only at the time of its determination.

(e) The Board of Review shall receive written briefs from the student appellant and the Board of Review shall be represented by the student's legal counsel, if any, or representatives of the Board of Review.

(f) The Board of Review shall meet only at the time of its determination.

(g) The Board of Review shall be comprised of two members,

(i) In violation of a federal or state law, Board policy, college regulations, or administrative rule, the student shall be removed from the college and barred from its property, giving false information in response to requests from the college; instigating a disturbance or not complying with college policy, or disturbing the property; and failing to pay fines imposed for disciplinary reasons.

(ii) Bar against readmission is imposed on a student who fails to pay a debt owed the college or who has a disciplinary case pending final disposition. The President may order payment of the debt or final disposition of the case.

(iii) Bar against readmission is imposed on a student who fails to pay a debt owed the college or who has a disciplinary case pending final disposition. The President may order payment of the debt or final disposition of the case.

(iv) Restitution for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or compensate for damages. The Board of Review makes a final determination of the amount of reimbursement.

(v) "Disciplinary suspension" may be practiced by disciplinary action may be imposed for any length of time up to one calendar year and the student shall be automatically removed from the college and barred from its property, giving false information in response to requests from the college; instigating a disturbance or not complying with college policy, or disturbing the property; and failing to pay fines imposed for disciplinary reasons.

(vi) Restitution for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or compensate for damages. The Board of Review makes a final determination of the amount of reimbursement.

(vii) "Disciplinary suspension" may be any or both of the following:

(a) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(b) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(c) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(d) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(e) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(f) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(g) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(h) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(i) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(j) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

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(u) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(v) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(w) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(x) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(y) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.

(z) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions on the student.
6. Parking and Traffic
(a) Reserved Parking Areas
These reserved areas are designated by signs; all other parking areas are open and are non-reserved.
(1) Handicapped persons, College visitors
(2) Motorcycles
(b) Tow Away Areas
(1) Handicapped persons area
(2) Fire Lanes
(3) Parking or driving on campus in areas other than those designated for vehicular traffic.
(c) Parking in "No Parking" zone
(1) Parking on courtyards
(2) Annex parking lots
(3) Campus Speed Limits* 

6. Parting and Law 0 Texas, the student law shall
(a) Speeding (the campus speed limit is 20 M.P.H.
(b) Reckless driving
(c) Driving wrong way in one-way lane
(d) Parking in "No Parking" lane
(f) Improper parking (parts of car outside the limits of a parking space)
(g) Parking in wrong area for example, handicapped or "No Parking" areas)
(h) Parking trailers or boats on campus
(i) Parking or driving on campus in areas other than those designated for vehicular traffic.
(j) Violations of all state statutes regulating vehicular traffic.
(k) Failure to display parking permit
(l) Collision with another vehicle or any sign or immovable object
(m) Parking or driving on campus in areas other than those designated for vehicular traffic.
(3) A citation is notice that a student's parking permit has been suspended. The service charge to reinstate the parking and driving permit must be paid at the Business Office. Failure to pay the service charge will result in the impoundment of the vehicle that is parked on campus and whose decal has been suspended.
(4) A person who receives a campus citation shall have the right within ten days to appeal in writing to the Vice President of Business, accompanied by whatever reason the person feels that the citation should not have been issued.
(5) If it becomes necessary to remove an improperly parked vehicle, an independent wrecker operator may be called. The owner of the vehicle will be charged the wrecker fee in addition to the service charge for reinstatement of the parking permit.
(6) Visitors to campus are also required to follow College regulations.
(7) The service charge for reinstatement of the parking and driving permit will be $5.00 per citation.
(8) Four citations per car during an academic year will result in permanent suspension of parking and driving permit for the balance of that academic year. A new term commences on August 1 of each year.
(9) The College is not responsible for the theft of vehicles on campus or of their contents.
Course Descriptions
The following terms are used throughout the catalog and particularly in this section of Course Descriptions. A brief explanation follows each term.

1. **Concurrent Enrollment**
   (a) Enrollment by the same student in two different colleges of the District at the same time, or (b) enrollment by a high school senior in a high school and one of the District colleges at the same time, or (c) enrollment by a student in two related courses in the same semester.

2. **Contact Hours** - The number of clock hours a student spends in a given course during the semester.

3. **Credit Hours (Cr.)** - College work is measured in units called credit hours. A credit hour value is assigned to each course and is normally equal to the number of hours the course meets each week. Credit hours are sometimes referred to as semester hours.

4. **Elective** - A course chosen by the student that is not required for a certificate or degree.

5. **Flexible Entry Course** - A course that permits beginning or ending dates other than the beginning or ending of the semester. Consult the class schedule for further information.

6. **Laboratory Hours (Lab.)** - The number of clock hours in the fall or spring semester the student spends each week in the laboratory or other learning environment.

7. **Lecture Hours (Lec.)** - The number of clock hours in the fall or spring semester the student spends each week in the classroom.

8. **Major** - The student's main emphasis of study (for example, Automotive Technology, Psychology, etc.)

9. **Performance Grades** - Grades assigned point values, including A, B, C, D, and F.

10. **Prerequisite** - A course that must be successfully completed or a requirement such as related life experiences that must be met before enrolling in another course.

In the following course descriptions, the number of credit hours for each course is indicated in parenthesis opposite the course number and title. Courses numbered 100 (except Music 199, Art 199 and Theater 199) or above may be applied to requirements for associate degrees. Courses numbered below 100 are developmental in nature and may not be applied to degree requirements. Students are urged to consult their counselors or specific college catalogs for information about transferability of courses to four-year institutions. Course prerequisites may only be waived by the appropriate division chairperson.

**ACCOUNTING (ACC) 131** (3)
**BOOKKEEPING** (3 LEC.)
The fundamental principles of double-entry bookkeeping are presented and applied to practical business situations. Emphasis is on financial statements, trial balances, work sheets, special journals, and adjusting and closing entries. A practice set covering the entire business cycle is completed.

**ACCOUNTING (ACC) 132** (3)
**BOOKKEEPING II** (3 LEC.)
Prerequisite: Accounting 131. This course covers accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations is introduced.

**ACCOUNTING (ACC) 201** (3)
**PRINCIPLES OF ACCOUNTING** (3 LEC.)
This course covers the theory and practice of measuring and interpreting financial data for business units. Topics include depreciation, inventory valuation, credit losses, the operating cycle, and the preparation of financial statements. (This course is offered on campus and may be offered via television.)

**ACCOUNTING (ACC) 202** (3)
**PRINCIPLES OF ACCOUNTING II** (3 LEC.)
Prerequisite: Accounting 201. Accounting procedures and practices for partnerships and corporations are studied. Topics include cost data and budget controls. Financial reports are analyzed for use by creditors, investors, and management.

**ACCOUNTING (ACC) 203** (3)
**INTERMEDIATE ACCOUNTING I** (3 LEC.)
Prerequisite: Accounting 202. This course is an intensive study of the concepts, principles, and practice of modern financial accounting. Included are the purposes and procedures underlying financial statements.

**ACCOUNTING (ACC) 204** (3)
**MANAGERIAL ACCOUNTING** (3 LEC.)
Prerequisite: Accounting 202. This course is a study of accounting practices and procedures used to provide information for business management. Emphasis is on the preparation and internal use of financial statements and budgets. Systems, information, and procedures used in management planning and control are also covered.

**ACCOUNTING (ACC) 238** (3)
**COST ACCOUNTING** (3 LEC.)
Prerequisite: Accounting 202. The theory and practice of accounting for a manufacturing concern are presented.

**ACCOUNTING (ACC) 239** (3)
**INCOME TAX ACCOUNTING** (3 LEC.)
Prerequisite: Accounting 202 or the consent of the instructor. This course examines basic income tax laws which apply to individuals and sole proprietorships. Topics include personal exemptions, gross income, business expenses, non-business deductions, capital gains, and losses. Emphasis is on common problems.

**ACCOUNTING (ACC) 702** (2)
(See Cooperative Work Experience)

**ACCOUNTING (ACC) 713, 803, 813** (3)
(See Cooperative Work Experience)

**AIR CONDITIONING AND REFRIGERATION (ACR) 111** (3)
**PRINCIPLES OF REFRIGERATION** (2 LEC., 2 LAB.)
This course introduces the principles of refrigeration. Topics include terminology, heat and energy concepts, basic system components and operating characteristics, and installation procedures. Laboratory fee.

**AIR CONDITIONING AND REFRIGERATION (ACR) 112** (3)
**PROPERTIES OF AIR** (2 LEC., 2 LAB.)
Prerequisites: Air Conditioning and Refrigeration 111 and Mathematics 195. The thermodynamic properties of air are studied. Theories are applied to evaporative cooling, ventilation, humidity control, environmental conditions affecting human comfort, and health and industrial processes. Laboratory fee.**
Starting with basic wiring, wiring diagrams and symbols, this course includes electrical concepts of electron flow, resistance, voltage, current, power, and the construction and use of meters. The relation of electrical components to diagrams and applications to control circuits are emphasized. Laboratory fee.

**Course: Air Conditioning and Refrigeration (ACR)**

**114 (3)**

**Heat Load Analysis (2 LEC., 2 LAB.)**

Prerequisites: Air Conditioning and Refrigeration 111 and Mathematics 195. This course covers the methods and procedures of heating and cooling surveys for residences and small commercial systems. Included are ways to reduce equipment load for energy conservation and operating cost efficiency. Laboratory fee.

**115 (3)**

**Unit Air Conditioning Systems (2 LEC., 3 LAB.)**

Prerequisites: Completion or enrollment in Air Conditioning and Refrigeration 111 and 113. The servicing of domestic unit air conditioning systems is presented. Refrigerant charging and evacuation procedures, electric motors and controls, and functional operations of major components are studied. Laboratory fee.

**116 (3)**

**Summer Air Conditioning Systems (2 LEC., 3 LAB.)**

Prerequisites: Credit or enrollment in Air Conditioning and Refrigeration 112, 114, and 115. Central residential and small commercial systems are studied. Topics include equipment, electric power distribution, and controls. Installation, operation, and troubleshooting are emphasized. Laboratory fee.

**117 (3)**

**Domestic Refrigeration (2 LEC., 2 LAB.)**

Prerequisites: Credit or enrollment in Air Conditioning and Refrigeration 111 and 113. This course presents the mechanical and electrical elements of refrigeration. Theories are applied to domestic refrigerators, freezers, and automatic ice cube makers. Emphasis is on operation, troubleshooting, and repair. Laboratory fee.

**118 (3)**

**Winter Air Conditioning Systems (2 LEC., 3 LAB.)**

Prerequisites: Credit or enrollment in Air Conditioning and Refrigeration 113, 114, and 115. Direct gas fired and electric warm air heating systems are studied. Topics include humidification devices, specific equipment, wiring, and controls. Installation and service are emphasized. Laboratory fee.

**119 (3)**

**Refrigeration Loads (2 LEC., 2 LAB.)**

Prerequisites: Air Conditioning and Refrigeration 116. This course focuses on the analysis and estimation of refrigeration loads for medium and low temperature systems. Product storage data and procedures for calculating loads with a variety of products and refrigeration equipment are included. Laboratory fee.

**120 (3)**

**Advanced Systems (2 LEC., 3 LAB.)**

Prerequisites: Air Conditioning and Refrigeration 116. Large commercial and industrial air conditioning systems are introduced. Basic system designs, equipment and control systems are the main topics. Instruction on air handling units, air volume boxes, centrifugal chillers, absorption systems, cooling towers, water treatment, and chilled water systems is included. Laboratory fee.

**121 (3)**

**System Testing and Balancing (2 LEC., 2 LAB.)**

Prerequisites: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for medium temperature equipment as found in food stores, warehouses, distribution centers, and processing plants are presented. Particular attention is given to electrical and mechanical features and to defrost subsystems. Laboratory fee.

**122 (3)**

**Medium Temperature Refrigeration Systems (2 LEC., 3 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Concepts and procedures for determining the effectiveness and efficiency of an air conditioning system are studied. System balance, capacity, load requirements and energy consumption are considered. Also included are the performance data and the use of test instruments for measurements of air flow, water flow, energy consumption, and recording of temperature. Laboratory fee.

**123 (3)**

**Low Temperature Refrigeration Systems (2 LEC., 3 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for low temperature equipment as found in food stores, warehouses, distribution centers, and industrial plants are presented. Particular attention is given to electrical and mechanical characteristics and to defrost system requirements. Laboratory fee.

**124 (3)**

**Energy Conservation (2 LEC., 2 LAB.)**

Prerequisite: Air Conditioning and Refrigeration 116. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee.

**125 (3)**

**Selection (2 LEC., 3 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221 or 222. Methods of equipment selection are covered for air conditioning load requirements. Consideration is given to component compatibility, system continuity control, balancing, and efficiency. Laboratory fee.

**126 (3)**

**Energy Conservation (2 LEC., 2 LAB.)**

Prerequisite: Air Conditioning and Refrigeration 116. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee.

**127 (3)**

**System Testing and Balancing (2 LEC., 2 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Concepts and procedures for determining the effectiveness and efficiency of an air conditioning system are studied. System balance, capacity, load requirements and energy consumption are considered. Also included are the performance data and the use of test instruments for measurements of air flow, water flow, energy consumption, and recording of temperature. Laboratory fee.

**128 (3)**

**Refrigeration Equipment Selection (2 LEC., 2 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221 or 222. Methods of equipment selection are covered for air conditioning load requirements. Consideration is given to component compatibility, system continuity control, balancing, and efficiency. Laboratory fee.

**129 (3)**

**Energy Conservation (2 LEC., 2 LAB.)**

Prerequisite: Air Conditioning and Refrigeration 116. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee.

**130 (3)**

**Energy Conservation (2 LEC., 2 LAB.)**

Prerequisite: Air Conditioning and Refrigeration 116. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee.

**131 (3)**

**Selection (2 LEC., 3 LAB.)**

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221 or 222. Methods of equipment selection are covered for air conditioning load requirements. Consideration is given to component compatibility, system continuity control, balancing, and efficiency. Laboratory fee.
emphasize given to those of North America. Included are the concepts of culture, social and political organization, language, religion and magic, and elementary anthropological theory. (This course is offered on campus and may be offered via television.)

ANTHROPOLOGY (ANT 104) (3)
AMERICAN INDIAN CULTURE (3 LEC.)
Native Americans are studied from three perspectives: Native American history and prehistory; traditional Indian cultures; and native Americans today. The latter theme stresses current topics such as discrimination, poverty, employment, reservations, The Bureau of Indian Affairs, self-determination, health care, etc.

ANTHROPOLOGY (ANT 110) (3)
THE HERITAGE OF MEXICO (3 LEC.)
This course (cross-listed as History 110) is taught in two parts each semester. The first part of the course deals with the archaeology of Mexico beginning with the first humans to enter the North American continent and culminating with the arrival of the Spanish in 1519 A.D. Emphasis is on archeological sites, the Maya, the Toltecs, and Aztec empires. The second part of the course deals with Mexican history and modern relations between the United States and Mexico. The student may register for either History 110 or Anthropology 110 but may receive credit for only one of the two.

ANTHROPOLOGY (ANT 208) (3)
MULTICULTURAL STUDIES (3 LEC.)
Prerequisite: Anthropology 101 or consent of instructor. This course is a multicultural approach to the study of modern Texas.Emphasis is on African, Anglo and Hispanic cultures. Field experiences and interviews are interspersed with lecture to provide opportunities for personal contact with various cultural behaviors.

ANTHROPOLOGY (ANT 210) (3)
LANGUAGE, CULTURE AND PERSONALITY (3 LEC.)
Prerequisite: Anthropology 101 or consent of instructor. Interrelated aspects of language, culture and personality are presented. Special consideration is given to intellectual, social and behavioral problems characteristic of multilingual, multicultural societies.

ANTHROPOLOGY (ANT 231) (3)
INTRODUCTION TO ARCHEOLOGY (3 LEC.)
This course is an anthropological approach to archeology. Topics include an introduction to the study of humanity's past. How archeologists retrieve, process, analyze and interpret surviving prehistoric materials is covered, as well as a survey of world prehistory through neolithic times.

ART (ART 104) (3)
ART APPRECIATION (3 LEC.)
Films, lectures, slides and discussions focus on the theoretical, cultural and historical aspects of the visual arts. Emphasis is on the development of visual and aesthetic awareness.

ART (ART 105) (3)
SURVEY OF ART HISTORY (3 LEC.)
This course covers the history of art from prehistoric time through the Renaissance. It explores the cultural, geophysical and personal influences on art styles.

ART (ART 106) (3)
SURVEY OF ART HISTORY (3 LEC.)
This course covers the history of art from the Baroque period through the present. It explores the cultural, geophysical and personal influences on art styles.

ART (ART 110) (3)
DESIGN I (2 LEC., 4 LAB.)
Basic concepts of design with two-dimensional materials are explored. The use of line, color, illusion of space or mass, texture, value, shape and size in composition is considered.

ART (ART 111) (3)
DESIGN II (2 LEC., 4 LAB.)
Basic concepts of design with three-dimensional materials are explored. The use of mass, space, movement and texture is considered. Laboratory fee.

ART (ART 112) (3)
CREATIVE PHOTOGRAPHY FOR THE ARTIST I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 114, or the consent of the instructor. Creative use of the camera is studied. Photosensitive materials are examined as a means of making expressive graphic images. Emphasis is black and white processing and printing techniques. Laboratory fee.

ART (ART 113) (3)
CREATIVE PHOTOGRAPHY FOR THE ARTIST II (2 LEC., 4 LAB.)
Prerequisites: Art 110, or the consent of the instructor. This course is a continuation of Art 112. Emphasis is on individual expression. Laboratory fee.

ART (ART 117) (3)
INTRODUCTION TO JEWELRY II (2 LEC., 4 LAB.)
Prerequisite: Art 116. This course continues Art 116. Advanced fabrication and casting techniques are presented. Emphasis is on original design. Laboratory fee.

ART (ART 118) (3)
INTRODUCTION TO JEWELRY III (2 LEC., 4 LAB.)
Prerequisite: Art 116. This course continues Art 117. Advanced techniques of fabrication and casting are covered. Emphasis is on original design. Laboratory fee.

ART (ART 201) (3)
DRAWING III (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111, Art 115, Sophomore standing and/or permission of the division chair. This course covers the analytic and expressive drawing of the human figure. Movement and volume are stressed. Laboratory fee.

ART (ART 202) (3)
DRAWING IV (2 LEC., 4 LAB.)
Prerequisites: Art 201, Sophomore standing and/or permission of the division chair. This course continues Art 201. Emphasis is on individual expression. Laboratory fee.

ART (ART 203) (3)
ART HISTORY (3 LEC.)
Prerequisites: Art 105 and Art 106. The development of the art of western culture during the Renaissance Period is presented. Emphasis is on the development of Renaissance art in Northern and Southern Europe.

ART (ART 204) (3)
ART HISTORY (3 LEC.)
Prerequisites: Art 105 and Art 106. The development of the art of western culture from the late 19th century through today is presented. Emphasis is on the development of modern art in Europe and America.
ART (ART) 205 (3)
PAINTING I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. This studio course stresses fundamental concepts of painting with acrylics and oils. Emphasis is on painting from still life, models and the imagination.

ART (ART) 206 (3)
PAINTING II (2 LEC., 4 LAB.)
Prerequisite: Art 205. This course continues Art 205. Emphasis is on individual expression.

ART (ART) 208 (3)
SCULPTURE I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. Various sculptural approaches are explored. Different media and techniques are used. Laboratory fee.

ART (ART) 209 (3)
SCULPTURE II (2 LEC., 4 LAB.)
Prerequisite: Art 208. This course continues Art 208. Emphasis is on individual expression. Laboratory fee.

ART (ART) 215 (3)
CERAMICS I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. This course focuses on the building of pottery forms by coil, slab and use of the wheel. Glazing and firing are also included. Laboratory fee.

ART (ART) 216 (3)
CERAMICS II (2 LEC., 4 LAB.)
Prerequisite: Art 215 or the consent of the instructor. Glaze technology is studied. Advanced problems in the creation of artistic and practical ceramic ware. Laboratory fee.

ART (ART) 217 (3)
WATERCOLOR I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111 and Art 115 or the consent of the instructor. Art 217 is a studio course exploring techniques in water base media. Emphasis is placed on exploration of a variety of modes and techniques as a means to original expression.

ART (ART) 220 (3)
PRINTMAKING I (2 LEC., 4 LAB.)
Prerequisites: Art 110, Art 111, Art 115, or the consent of the instructor. Basic printmaking processes are introduced. Included are planographic, intaglio, stencil and relief processes. Laboratory fee.

ART (ART) 222 (3)
PRINTMAKING II (2 LEC., 4 LAB.)
Prerequisite: Art 220. This course is a continuation of Printmaking I. Laboratory fee.

ART (ART) 228 (3)
THREE-DIMENSIONAL DESIGN (2 LEC., 4 LAB.)
Prerequisite: Art majors: Art 110, 111, 114. Drafting Technology majors: Drafting 183, Engineering 186. Development of three-dimensional projects in metal, plastic, and wood through the stages of design: idea, sketches, research, working drawing, model and finished product. Emphasis is on function, material and esthetic form. Laboratory fee.

ASTRONOMY (AST) 101 (3)
DESCRIPTIVE ASTRONOMY (3 LEC.)
This course surveys the fundamentals of astronomy. Emphasis is on the solar system. Included is the study of the celestial sphere, the earth's motions, the moon, planets, asteroids, comets, meteors and meteorites. (This course is offered on campus and may be offered via television.)

ASTRONOMY (AST) 102 (3)
GENERAL ASTRONOMY (3 LEC.)
Stellar astronomy is emphasized. Topics include a study of the sun, the properties of stars, star clusters, nebulas, interstellar gas and dust, the Milky Way Galaxy and external galaxies.

ASTRONOMY (AST) 103 (1)
ASTRONOMY LABORATORY I (3 LAB.)
Prerequisite: Credit or concurrent enrollment in Astronomy 101. The student uses simple equipment to make elementary astronomical observations of the motions of celestial objects. Also covered are elementary navigational techniques, graphical techniques of calculating the position of a planet or comet, and construction and observation of equipment. This course includes night observations. Laboratory fee.

ASTRONOMY (AST) 104 (1)
ASTRONOMY LABORATORY II (3 LAB.)
Prerequisite: Credit or concurrent enrollment in Astronomy 102. The student makes and uses elementary astronomical observations. Topics include timekeeping, the various uses of spectra, and the motions of stars and galaxies. This laboratory includes night observations. Laboratory fee.

AUTO BODY (AB) 111 (3)
MINOR METAL REPAIR (90 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 114. Body construction and sheet metal alignment are studied. Emphasis is on the various techniques of applying plastic to minor damages. Laboratory fee.

AUTO BODY (AB) 112 (2)
APPLIED BASIC METAL PRINCIPLES (60 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 113. This course emphasizes the hands-on techniques used in sheet metal alignment and damage correction. Procedures and tools covered in Auto Body 115 will be covered. Laboratory fee.

AUTO BODY (AB) 113 (3)
BASIC PAINT PRINCIPLES (90 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 122. This course presents the use of Sanders and other equipment. Sanding and applying primer and paint are stressed. The use and operation of the spray gun are covered. Laboratory fee.

AUTO BODY (AB) 114 (2)
APPLIED BLENDING AND SPOT REPAIR TECHNIQUES (60 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 121. This course will cover hands-on techniques in the use of power and hand sanding as well as use of the spray gun. The techniques covered in Auto Body 121 will be covered. Laboratory fee.

AUTO BODY (AB) 121 (3)
PAINT BLENDING AND SPOT REPAIR TECHNIQUES (90 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 124. The use of manufacturers' codes, mass and tint tone methods, and color selection are examined. Initial color matching, correction, and color tinting are covered. Spray gun maintenance, operation, patterns and corrective adjustments receive particular attention. Polishing, touch-up, and detailing procedures are studied. Topics include the use of rubbing compounds, polishes, and buffing techniques. Minor surface repairs are also included. Laboratory fee.

AUTO BODY (AB) 122 (2)
APPLIED BLENDING AND SPOT REPAIR TECHNIQUES (60 CONTACT HOURS)
Prerequisite: Concurrent enrollment in Auto Body 123. This course examines potential problems that occur in the application of the finish on today's automobile. Recognition, prevention, and correction of problems are stressed. Laboratory fee.

AUTO BODY (AB) 123 (3)
BODY SHOP OPERATIONS (48 CONTACT HOURS)
The basic business principles of...
managing an automobile service shop are studied. Emphasis is on management functions, financial analysis, and governmental regulations.

**AUTO BODY (AB) 211 (3)**  
MAJOR PANEL REPLACEMENT (90 CONTACT HOURS)  
Prerequisite: Concurrent enrollment in Auto Body 212. The use of power tools and cutting tools is presented. Emphasis is on the repair and replacement of panels. Laboratory fee.

**AUTO BODY (AB) 212 (2)**  
APPLIED MAJOR PANEL REPLACEMENT (60 CONTACT HOURS)  
Prerequisite: Concurrent enrollment in Auto Body 211. This course emphasizes repair and replacement of panels on in-service automobiles. The adjustment, repair and replacement of equipment and minor electrical apparatus are also covered. Laboratory fee.

**AUTO BODY (AB) 213 (3)**  
MAJOR COLLISION AND FRAME REPAIR (90 CONTACT HOURS)  
Students learn to use power frame alignment equipment through lecture, demonstration, and actual job repairs. Laboratory fee.

**AUTO BODY (AB) 221 (3)**  
ADVANCED PAINT TECHNIQUES (90 CONTACT HOURS)  
Prerequisite: Concurrent enrollment in Auto Body 222. This course focuses on the development of painting skills. Emphasis is on mixing colors, matching colors, and texture. Special decorative effects are also covered, such as simulated wood and vinyl application. Transfer repair, renewal, removal, film application, painting and taping techniques are included. Laboratory fee.

**AUTO BODY (AB) 222 (2)**  
APPLIED ADVANCED PAINT TECHNIQUES (60 CONTACT HOURS)  
Prerequisite: Concurrent enrollment in Auto Body 221. This course further develops painting skills with hands-on training, emphasizing mixing colors and matching color and texture of paint on in-service automobiles. Laboratory fee.

**AUTO BODY (AB) 235 (3)**  
ESTIMATING (3 LEC)  
The procedures of estimating damage on automobiles are presented.

**AUTO BODY (AB) 803 (3)**  
(See Cooperative Work Experience)

**AUTO BODY (AB) 804 (4)**  
(See Cooperative Work Experience)
AUTOMOTIVE TECHNOLOGY
(AT) 803, 813 (3)
(See Cooperative Work Experience)

AUTOMOTIVE TECHNOLOGY
(See Cooperative Work Experience)
704, 804 (4) BHC
713, 813 (3) BHC, CVC
714, 814 (4) BHC, CVC
803, 813 (3) BHC, EFC

BIOLOGY (BIO) 101 (4)
GENERAL BIOLOGY (3 LEC., 3 LAB.)
This course is a prerequisite for all higher level biology courses and should be taken in sequence. Topics include the cell, tissue, and structure and function of plants and animals. Laboratory fee.

BIOLOGY (BIO) 102 (4)
GENERAL BIOLOGY (3 LEC., 3 LAB.)
This course is a continuation of Biology 101. Topics include Mendelian and molecular genetics, evolutionary mechanisms, and plant and animal development. The energetics and regulation of ecological communities are also studied. Laboratory fee.

BIOLOGY (BIO) 110 (4)
INTRODUCTORY BOTANY (3 LEC., 3 LAB.)
This course introduces plant form and function. Topics ranging from the cell through organs are included. Emphasis is on the vascular plants, including the taxonomy and life cycles of major plant divisions. Laboratory fee.

BIOLOGY (BIO) 115 (4)
Biological Science (3 LEC., 3 LAB.)
Selected topics in biological science are presented for the non-science major. Topics include the cell concept and basic chemistry as it relates to biology. An introduction to genetics, evolution, cellular processes, such as mitosis, meiosis, respiration, and photosynthesis, and plant and animal reproduction is also covered. Laboratory fee. (This course is offered on campus and may be offered via television.)

BIOLOGY (BIO) 116 (4)
Biological Science (3 LEC., 3 LAB.)
Selected topics in biological science are presented for the non-science major. Topics include the systems of the human body, disease, drug abuse, aging, evolution, ecology, and people in relation to their environment. Laboratory fee.

BIOLOGY (BIO) 120 (4)
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)
Prerequisite: Prior enrollment in Biology 115 is recommended for those with no previous high school biology. Major topics include cell structure and function, tissues, organization of the human body, and the following organ systems: skeletal, muscular, nervous, and endocrine. This course is a foundation course for specialization in Associate Degree Nursing and Allied health disciplines. Other students interested in the study of structure and function of the human body should consult a counselor. Emphasis is on homeostasis. Laboratory fee.

BIOLOGY (BIO) 121 (4)
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)
Prerequisite: Biology 120. This course is a continuation of Biology 120. Major topics include the following organ systems: digestive, circulatory, respiratory, urinary, and reproductive. Emphasis is on homeostasis. Laboratory fee.

BIOLOGY (BIO) 123 (4)
APPLIED ANATOMY AND PHYSIOLOGY (3 LEC., 2 LAB.)
This course surveys human anatomy and physiology. The various body systems are studied and examined. This course is suggested for students of the health occupations in accordance with their program requirements. It is open to other students. This course will apply toward meeting the science requirement for non-science majors. No previous science background is presumed. Laboratory fee.

BIOLOGY (BIO) 211 (4)
INVERTEBRATE ZOOLOGY (3 LEC., 3 LAB.)
Prerequisite: 8 hours of biological science. This course surveys the major groups of animals below the level of chordates. Consideration is given to phylogeny, taxonomy, morphology, physiology, and biology of the various groups. Relationships and importance to humans are stressed. Laboratory fee.

BIOLOGY (BIO) 216 (4)
GENERAL MICROBIOLOGY (3 LEC., 4 LAB.)
Prerequisites: Biology 102 or Biology 121 or the consent of the instructor. Microbes are studied. Topics include growth, reproduction, nutrition, genetics and ecology of micro-organisms. Laboratory activities constitute a major part of the course. Laboratory fee.

BIOLOGY (BIO) 217 (4)
FIELD BIOLOGY (3 LEC., 4 LAB.)
Prerequisite: Eight hours of biological science or the consent of the division chairperson. Local plant and animal life are surveyed in relationship to the environment. Aquatic and terrestrial communities are studied with reference to basic ecological principles and techniques. Emphasis is upon classification, identification, and collection of specimens in the field. This course may be repeated for credit.

BIOLOGY (BIO) 221 (4)
ANATOMY AND PHYSIOLOGY I (3 LEC., 3 LAB.)
Prerequisite: Biology 102 or the consent of the instructor. This course examines cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems. Laboratory fee.

BIOLOGY (BIO) 222 (4)
ANATOMY AND PHYSIOLOGY II (3 LEC., 3 LAB.)
Prerequisite: Biology 221 or the consent of the instructor. Second course of a two course sequence. Structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems. Emphasis is placed on the interrelationships of these systems. Laboratory fee.

BIOLOGY (BIO) 224 (4)
ENVIRONMENTAL BIOLOGY (3 LEC., 3 LAB.)
Prerequisite: 6 hours of biology. The principles of aquatic and terrestrial communities are presented. Emphasis is on the relationship of these principles to the problems facing people in a modern technological society. Laboratory fee.

BIOLOGY (BIO) 235 (4)
COMPARATIVE ANATOMY OF THE VERTEBRATES (3 LEC., 4 LAB.)
Prerequisites: Biology 101 and 102. For science majors and pre-medical and pre-dental students. Major groups of vertebrate class is studied. Emphasis is on morphology and evolutionary relationships. Laboratory fee.

BUSINESS (BUS) 105 (3)
INTRODUCTION TO BUSINESS (3 LEC.)
This course provides an overall picture of business operations. Specialized fields within business organizations are analyzed. The role of business in modern society is identified. (This course is offered on campus and may be offered via television.)

BUSINESS (BUS) 143 (3)
PERSONAL FINANCE (3 LEC.)
Personal financial issues are explored. Topics include financial planning, insurance, budgeting, credit use, home ownership, savings, investment, and tax problems.

BUSINESS (BUS) 234 (3)
BUSINESS LAW (3 LEC.)
This course presents the historical and ethical background of the law and
current legal principles. Emphasis is on contracts, property, and torts.

BUSINESS (BUS) 237  (3)  ORGANIZATIONAL BEHAVIOR (3 LEC.)
The persisting human problems of administration in modern organizations are covered. The theory and methods of behavioral science as they relate to organizations are included.

CHEMISTRY (CHM) 101  (4)  GENERAL CHEMISTRY (3 LEC., 3 LAB.)
Prerequisites: Developmental Mathematics 093 or equivalent and any one of the following: high school chemistry, Chemistry 115, or equivalent. This course is for science and science-related majors. It covers the laws and theories of matter. The laws and theories are used to understand the properties of matter, chemical bonding, chemical reactions, the physical states of matter, and changes of state. The fundamental principles are applied to the solution of quantitative problems relating to chemistry. Laboratory fee.

CHEMISTRY (CHM) 102  (4)  GENERAL CHEMISTRY (3 LEC., 3 LAB.)
Prerequisite: Chemistry 101. This course is for science and science-related majors. It is a continuation of Chemistry 101. Previously learned and new concepts are applied. Topics include solutions and colloids, chemical kinetics and equilibrium, electrochemistry, and nuclear chemistry. Qualitative inorganic analysis is also included. Laboratory fee.

CHEMISTRY (CHM) 115  (4)  CHEMICAL SCIENCES (3 LEC., 3 LAB.)
Prerequisite: Developmental Mathematics 091 or the equivalent. This course is for non-science majors. It traces the development of theoretical concepts. These concepts are used to explain various observations and laws relating to chemical bonding reactions, states of matter, solutions, electrochemistry, and nuclear chemistry. Also included is the descriptive chemistry of some common elements and inorganic compounds. Laboratory fee.

CHEMISTRY (CHM) 116  (4)  CHEMICAL SCIENCES (3 LEC., 3 LAB.)
Prerequisite: Chemistry 115 or the consent of the instructor. This course is for non-science majors. It covers organic chemistry and biochemistry. The important classes of organic compounds are surveyed. The concept of structure is the central theme. Biochemistry topics include carbohydrates, proteins, lipids, chemistry of heredity, disease and therapy, and plant biochemistry. Laboratory fee.

CHEMISTRY (CHM) 201  (4)  ORGANIC CHEMISTRY I (3 LEC., 4 LAB.)
Prerequisite: Chemistry 102. This course is for science and science-related majors. It introduces organic chemistry. The fundamental types of organic compounds are presented. Their nomenclature, classification, reactions, and applications are included. The reactions of aliphatic and aromatic compounds are discussed in terms of modern electronic theory. Emphasis is on reaction mechanisms, stereochemistry, transition state theory, and organic synthesis. Laboratory fee.

CHEMISTRY (CHM) 202  (4)  ORGANIC CHEMISTRY II (3 LEC., 4 LAB.)
Prerequisite: Chemistry 201. This course is for science and science-related majors. It is a continuation of Chemistry 201. Topics include aliphatic and aromatic systems, polyfunctional compounds, amino acids, proteins, carbohydrates, sugars, and heterocyclic and related compounds. Instrumental techniques are used to identify compounds. Laboratory fee.

CHILD DEVELOPMENT (CD) 127  (3)  EARLY CHILDHOOD DEVELOPMENT, 5-12 YEARS (3 LEC.)
This course covers the principles of normal child growth and development from five through twelve years of age. Emphasis is on physical, intellectual, emotional, and social growth. Special attention is given to before and after school care.

CHILD DEVELOPMENT (CD) 135  (4)  INTRODUCTION TO EARLY CHILDHOOD PROGRAMS AND SERVICES (3 LEC., 2 LAB)
This course is a study of historical and current early childhood development programs and services, as well as individuals influencing these programs. Laws and standards regulating these child-care facilities are covered. The laboratory experience includes observation and participation with pre-schools and child-care centers in the community.

CHILD DEVELOPMENT (CD) 137  (4)  EARLY CHILDHOOD LEARNING ENVIRONMENTS, ACTIVITIES AND MATERIALS (3 LEC., 2 LAB.)
This course is a study of appropriate learning experiences for young children in child-care facilities. Emphasis is on quality environments, learning activities, materials and effective teaching techniques. The laboratory experience includes observation and participation in the Parent/Child Study Center and community child-care centers.

CHILD DEVELOPMENT (CD) 140  (3)  EARLY CHILDHOOD DEVELOPMENT, 0-3 YEARS (3 LEC.)
This course covers the principles of normal child growth and development from conception through three years. Emphasis is on physical, intellectual, emotional, and social growth.

CHILD DEVELOPMENT (CD) 141  (3)  EARLY CHILDHOOD DEVELOPMENT, 3-5 YEARS (3 LEC.)
This course covers the principles of normal child growth and development from three through five years of age. Emphasis is on physical, intellectual, emotional, and social growth.

CHILD DEVELOPMENT (CD) 200  (1)  APPLICATION OF LEARNING THEORIES (30 CONTACT HOURS)
This course provides application of child development learning theories with young children at the Parent/Child Study Centers and other appropriate child-care facilities. It is repeated four times concurrently with required Child Development core or elective courses.

CHILD DEVELOPMENT (CD) 203  (3)  PARENTS AND THE CHILD CAREGIVER/TEACHER (3 LEC.)
Relationships between caregivers, teacher and parents of young children are studied. Emphasis is on ways to develop parental involvement in child care facilities. The course includes observation and participation with teachers, parents, and young children in group settings.

CHILD DEVELOPMENT (CD) 209  (3)  EARLY CHILDHOOD DEVELOPMENT SPECIAL PROJECTS (3 LEC.)
Registration for this course must be preceded by an interview with a child development instructor. A particular dimension of child care is explored in depth by the student in an individual project. Participation in a designated child care center or facility directly related to the student's special project is included.

CHILD DEVELOPMENT (CD) 233  (4)  DIRECTED PARTICIPATION OF EARLY CHILDHOOD PROGRAMS (2 LEC., 5 LAB)
This course provides in-depth observation and participation experiences and activities with young children at the Parent/Child Study Center and other appropriate child-care facilities.

CHILD DEVELOPMENT (CD) 236  (3)  THE SPECIAL CHILD: GROWTH AND DEVELOPMENT (3 LEC.)
Children with special needs are studied with emphasis on physical, mental, and emotional/behavioral problems. This course provides a
CHILD DEVELOPMENT (CD) 238 (3)
INTRODUCTION TO ADMINISTRATION OF CHILD CARE PROGRAMS (3 LEC.)
The management of preschool/day care centers is studied. Topics include budgeting, record-keeping, food, health and referral services, and personnel practices.

CHILD DEVELOPMENT (CD) 239 (3)
STUDIES IN CHILD GUIDANCE (2 LEC., 2 LAB.)
This course is a study of appropriate ways of guiding and teaching young children. Emphasis is on guidance principles that develop a positive self-concept in early childhood while recognizing individual differences and varied family situations. The course includes observation of and participation with young children in child-care facilities and interpretation of anecdotal records and case studies of young children.

CHILD DEVELOPMENT (CD) 244 (4)
APPLICATION OF CHILD DEVELOPMENT LEARNING THEORIES (2 LEC., 5 LAB.)
This course provides application of child development learning theories with young children at the Parent/Child Study Center and other appropriate child care facilities.

CHILD DEVELOPMENT (CD) 246 (3)
ADVANCED ADMINISTRATIVE PRACTICES FOR CHILD CARE FACILITIES (3 LEC.)
Prerequisite: Child Development 238. This course is a study of advanced administrative procedures for child care programs. Topics include planning, financial management, personnel policies, evaluation, leadership styles, and facility design.

CHILD DEVELOPMENT (CD) 250 (3)
SUPPORTIVE SERVICES FOR EXCEPTIONAL CHILDREN (3 LEC.)
The focus of this course is on identifying local, state, and national resources for exceptional children and their families. Referral and resource information for special children is gathered through field studies, community involvement, and independent activities.

CHILD DEVELOPMENT (CD) 251 (4)
LEARNING PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS (2 LEC., 5 LAB.)
This course focuses on successful model programs for encouraging maximum learning from young children with special needs. Materials, activities, and methods of working with children are examined.

CHILD DEVELOPMENT (CD) 253 (3)
ABUSE WITHIN THE FAMILY (2 LEC., 2 LAB.)
The symptoms and causes of abusive behaviors within the family are the focus of this course. Emphasis is on developing skills and competencies in working with these families to help them lessen and alleviate abusive behaviors and experiences.

CHILD DEVELOPMENT (CD) 813 (3)
(College of Cooperative Work Experience)

COLLEGE LEARNING SKILLS (CLS) 100 (1)
COLLEGE LEARNING SKILLS (1 LEC.)

COMPUTING SCIENCE (CS) 174 (3)
INTRODUCTION TO FORTRAN PROGRAMMING (2 LEC., 2 LAB.)
Prerequisites: Computing Science 174 or Computing Science 175 and Math 101 or the consent of the instructor based on equivalent experience. This course is an introduction to computing techniques using the FORTRAN language. Emphasis is on applications used to solve numeric problems in engineering, physical science, and mathematics.

COMPUTING SCIENCE (CS) 175 (3)
INTRODUCTION TO BASIC PROGRAMMING (2 LEC., 2 LAB.)
Prerequisites: Computing Science 174 or Computing Science 175 or the consent of the instructor based on equivalent experience. An introduction to the BASIC programming language. Proficiency will be developed as the student codes and executes several BASIC programs using interactive computing equipment. Laboratory fee.

COMPUTING SCIENCE (CS) 180 (3)
INTRODUCTION TO PASCAL PROGRAMMING (2 LEC., 2 LAB.)
Prerequisites: Computing Science 174 or Computing Science 175 or the consent of the instructor based on equivalent experience. A study of PL1 language with numeric and non-numeric applications. Computing techniques will be developed in such areas as program design, basic aspects of string processing, recursion, internal search sort methods, and simple data structures. Laboratory fee.

COMPUTING SCIENCE (CS) 181 (3)
FUNDAMENTALS OF COMPUTING (3 LEC.)
Prerequisites: Computing Science 174 or Computing Science 175 or the consent of the instructor based on equivalent experience. An introduction to the COBOL programming language. Topics will include algorithmic processes, problem solving methods, programming style, flow charts, and various files processing techniques. Emphasis is on the language, its flexibility and power rather than on applications. Laboratory fee.

COMPUTING SCIENCE (CS) 185 (3)
INTRODUCTION TO PASCAL PROGRAMMING (2 LEC., 2 LAB.)
Prerequisites: Computing Science 174 or Computing Science 175 and Math 101 or the consent of the instructor based on equivalent experience. This course is an introduction to PASCAL. Topics will include problem solving and structured programming techniques introduced through
examples from applications such as text processing, numerical computing, and simulation, together with programming assignments. Laboratory fee.

**COMPUTING SCIENCE (CS) 186 (3)**
**INTRODUCTION TO ASSEMBLY LANGUAGE (2 LEC., 2 LAB.)**
Prerequisites: Computing Science 174 or Computing Science 175 and six semester hours of computer programming or the consent of the instructor based on equivalent experience. This course is an introduction to ASSEMBLY language programming. Topics will include machine representation-of data and instructions, logical input/output control systems, subroutine and addressing concepts, and presentation of selected macro instructions. Laboratory fee.

**COMPUTING SCIENCE (CS) 250 (3)**
**CONTEMPORARY TOPICS IN COMPUTER SCIENCE (3 LEC.)**
Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Recent developments and topics of current interest are studied. Topics may include introduction to microcomputer systems, programming languages, or other advanced data processing concepts such as CICS.

**COOPERATIVE WORK EXPERIENCE 701, 711, 801, 811 (1)**
702, 712, 802, 812 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)
725, 735, 742, 734 for CVC ONLY
723, 733, 823, 824, 834 for BHC ONLY
Prerequisite: Completion of two courses in the student's major or instructor or coordinator approval. These courses consist of seminars and on-the-job experience. Theory and instruction received in the courses of the students' major curricula are applied to the job. Students are placed in work-study positions in their technical occupational fields. Their skills and abilities to function successfully in their respective occupations are tested. These work internship courses are guided by learning objectives composed at the beginning of each semester by the students, their instructors or coordinators, and their supervisors at work. The instructors determine if the learning objectives are valid and give approval for credit.

**DATA PROCESSING (DP) 129 (4)**
**DATA ENTRY CONCEPTS (2 LEC., 5 LAB.)**
Prerequisite: Office Careers 172 or one year of typing in high school or equivalent. This course provides skills using buffered display equipment. Emphasis is on speed and accuracy. Topics include performing the basic functions record formatting with protected and variable fields, and using a variety of source documents. Program control, multiple programs, and program chaining are also covered. Laboratory fee.

**DATA PROCESSING (DP) 133 (4)**
**BEGINNING PROGRAMMING (3 LEC., 4 LAB.)**
Prerequisites: Computing Science 175 or the consent of the instructor. Concurrent enrollment in Data Processing 138 is advised. This course introduces programming skills using the COBOL language. Skills in problem analysis, flowcharting, coding, testing, and documentation are developed. Laboratory fee.

**DATA PROCESSING (DP) 136 (4)**
**INTERMEDIATE PROGRAMMING (3 LEC., 4 LAB.)**
Prerequisites: Data Processing 133 and Data Processing 138 or the consent of the instructor. Study of COBOL language continues. Included are levels of totals, group printing concepts, table build and search techniques, ISAM disk concepts, matching record, and file maintenance concepts using disk. Laboratory fee.

**DATA PROCESSING (DP) 137 (3)**
**DATA PROCESSING MATHEMATICS (3 LEC.)**
Prerequisites: One year of high school algebra or Developmental Math 091 or the consent of the instructor. This course introduces the principles of computer computation. Topics include the number system, fundamental processes, number bases, and the application of mathematics to typical business problems and procedures.

**DATA PROCESSING (DP) 138 (3)**
**SYSTEMS ANALYSIS AND DATA PROCESSING LOGIC (3 LEC.)**
Prerequisite: Computing Science 175 or the consent of the instructor. Concurrent enrollment in Data Processing 133 is advised. This course presents basic logic needed for problem solving with the computer. Topics include flowcharting, techniques for basic logic operations, table search and build techniques, types of report printing, conditional tests, multiple record types, and sequential file maintenance. System flowcharting is introduced.
DATA PROCESSING (DP) 233 (4)
OPERATING SYSTEMS AND COMMUNICATIONS (3 LEC., 4 LAB.)
Prerequisite: Data Processing 133 or the consent of the instructor. Concepts and technical knowledge of an operating system, JCL, and utilities are presented. The internal functions of an operating system are analyzed. Training is given in the use of JCL and utilities. The emphasis of the operating system depends on the computer system used Laboratory fee.

DATA PROCESSING (DP) 234 (4)
ADVANCED ASSEMBLY LANGUAGE CODING (3 LEC., 3 LAB.)
Prerequisite: Data Processing 231. The development of programming skills using the assembly language instruction set is covered. Topics include indexing, indexed sequential file organization, table search methods, data and bit manipulation techniques, code translation, advanced problem analysis, and debugging techniques. Floating point operations are introduced. Laboratory fee.

DATA PROCESSING (DP) 236 (4)
ADVANCED COBOL TECHNIQUES (3 LEC., 4 LAB.)
Prerequisite: Data Processing 133 and 136, or the consent of the instructor. Advanced problem solving techniques are studied using the COBOL programming language. Emphasis is placed on sequential and random processing techniques using disk. Additional ANSI COBOL conventions are covered. Set/search table lookup, sort verb, report writer, and modular programing techniques are included. Laboratory fee.

DATA PROCESSING (DP) 243 (3)
COMPUTER CENTER MANAGEMENT (3 LEC.)
Prerequisite: Computing Science 175, a minimum of one semester of high level language, or the consent of the instructor. The management of a computer center is examined. Topics include analyzing, planning, organizing and controlling installations. The organization, production orientation, control, and personnel of the data processing department are covered. The effects of these functions on information and real-time systems are explored. Methods for computer selection and evaluation are described.

DATA PROCESSING (DP) 244 (3)
BASIC PROGRAMMING (2 LEC., 2 LAB.)
Prerequisite: Computing Science 175 or the consent of the instructor. This course covers the fundamentals of the BASIC programming language. Students gain proficiency by writing and debugging programs using interactive microcomputers. Laboratory fee.

DATA PROCESSING (DP) 246 (4)
DATABASE BASE SYSTEMS (3 LEC., 4 LAB.)
Prerequisite: Data Processing 136 or the consent of the instructor. This course is an introduction to applications program development in database environment with emphasis on loading, modifying, and querying a database using a higher-level language. Discussion and application of database structures, indexed and direct file organizations, storage devices, data analysis, design, and implementation, and data administration are included. Laboratory fee.

DATA PROCESSING (DP) 701, 711, 801, 811 (1)
See Cooperative Work Experience.

DATA PROCESSING (DP) 702, 712, 802, 812 (2)
See Cooperative Work Experience.

DATA PROCESSING (DP) 703, 713, 803, 813 (3)
See Cooperative Work Experience.

DEVELOPMENTAL COMMUNICATIONS (DC) 095 (3)
COMMUNICATION SKILLS (3 LEC.)
This course focuses on strengthening language communications. Topics include grammar, paragraph structure, reading skills, and oral communication. Emphasis is on individual testing and needs.

DEVELOPMENTAL COMMUNICATIONS (DC) 120 (3)
COMMUNICATION SKILLS (2 LEC., 2 LAB.)
This course is for students with significant communication problems. It is organized around problem development, and students may enroll at any time. It is especially helpful in English 102 and 103.

DEVELOPMENTAL LEARNING (DL) 094 (1)
LEARNING SKILLS IMPROVEMENT (2 LAB.)
Learning skills are strengthened. Emphasis is on individual needs and personalized programs. This course may be repeated for a maximum of three credits.

DEVELOPMENTAL MATHEMATICS

DEVELOPMENTAL MATHEMATICS (DM) 064 (1)
NURSING (1 LEC.)
This course is designed to develop an understanding of the methodologies and terminology in medicine and nursing program.

DEVELOPMENTAL MATHEMATICS (DM) 090 (3)
PRE ALGEBRA MATHEMATICS (3 LEC.)
This course is designed to develop an understanding of addition, subtraction, multiplication, and division of whole numbers, fractions, decimals and percentages and to strengthen basic skills in mathematics. It is the most basic mathematics course and includes an introduction to algebra.

DEVELOPMENTAL MATHEMATICS (DM) 091 (3)
ELEMENTARY ALGEBRA (3 LEC.)
Prerequisite: Developmental Mathematics 090. This course is comparable to the first-year algebra course in high school. It includes special products and factoring, fractions, equations, graphs, functions, and an introduction to geometry.

DEVELOPMENTAL MATHEMATICS (DM) 093 (3)
INTERMEDIATE ALGEBRA (3 LEC.)
Prerequisite: One year of high school algebra or Developmental Mathematics 091. This course is comparable to the second-year algebra course in high school. It includes terminology of sets, properties of real numbers, fundamental operations of polynomials and fractions, products, factoring, radicals, and rational exponents. Also covered are solutions of linear, fractional, quadratic and systems of linear equations, and graphing.

DEVELOPMENTAL READING
Students can improve their performance in English courses by enrolling in Developmental Reading Courses. Developmental Reading 090 and 091 are valuable skill development courses for English 101. Reading 101 is especially helpful in English 102 and the sophomore-level literature courses. See the catalog descriptions in reading for full course content.

DEVELOPMENTAL READING (DR) 090 (3)
TECHNIQUES OF READING/LEARNING (3 LEC.)
Comprehension, vocabulary development, and study skills are the focus of this course. Emphasis is on learning how to learn. Included are reading and learning experiences to
This is a specialty course to prepare one to work in civil drafting. Various drawings are completed, such as relief maps, plan and profile drawings, roadways, pipelines, and petroleum and geophysical maps. Calculations are made from surveyor's notes to plot a traverse and contour lines and to determine area and volumes. A set of drawings is prepared for a residential subdivision, a shopping center, or some other type of land development.

DRAFTING (DFT) 160 (2)
MANUFACTURING FUNDAMENTALS (2 LEC.)
Manufacturing fundamentals and production methods are studied. Modern fabrication techniques and equipment used in industry are presented. The functions and role of drafting are described.

DRAFTING (DFT) 182 (2)
TECHNICIAN DRAFTING (1 LEC., 3 LAB.)
This course focuses on the reading and interpretation of engineering drawings. Topics include multiview drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams, and printed circuit boards. Laboratory fee.

DRAFTING (DFT) 183 (4)
BASIC DRAFTING (2 LEC., 6 LAB.)
This course is for students who have had little or no previous experience in drafting. Skill in orthographic, axonometric, and oblique sketching and drawing is developed. Topics include lettering, applied geometry, fasteners, sectioning, tolerancing, and auxiliaries. Experience is provided in using handbooks and other resource materials and in developing design skills. U.S.A.S.I., government, and industrial standards are used. Emphasis is on both mechanical skills and graphic theory. Laboratory fee.

DRAFTING (DFT) 184 (3)
INTERMEDIATE DRAFTING (2 LEC., 4 LAB.)
Prerequisite: Drafting 183 or the equivalent. Equivalent is based on high school drafting courses or on student's work experience. Sample of drawings and/or high school transcript must be presented. Drafting problems, design function, and specialized drafting areas are examined. Included are the detailing and assembling of machine parts, gears, cams, jigs, fixtures, metals, and metal forming processes. Drawing room standards and reproducing drawings are studied. Detail and assembly drawings are made. Laboratory fee.

DRAFTING (DFT) 185 (4)
ARCHITECTURAL DRAFTING (2 LEC., 6 LAB.)
This course begins with architectural lettering, and drafting of construction details. Emphasis is on the use of appropriate material symbols and conventions. Working drawings are prepared, including plans, elevations, sections, and details. Drawings for buildings using steel, concrete, and timber structural components are covered. Reference materials are used to provide skills in locating data and in using handbooks.

DRAFTING (DFT) 230 (3)
STRUCTURAL DRAFTING (2 LEC., 4 LAB.)
Prerequisites: Drafting 184 and Mathematics 196. Stresses and thermal and elastic qualities of various materials are studied. Beams, columns, and other materials are included. Structural plans, details, and shop drawings of components are developed for buildings using steel, reinforced concrete, and timber structures. Emphasis is on drafting appropriate drawings for fabrication and erection of structural components.

DRAFTING (DFT) 231 (3)
ELECTRONIC DRAFTING (2 LEC., 4 LAB.)
Prerequisite: Drafting 183. This course focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed circuit boards, integrated circuits, component packaging, chassis design and current practices.

DRAFTING (DFT) 232 (3)
TECHNICAL ILLUSTRATION (2 LEC., 4 LAB.)
Prerequisite: Drafting 183. The rendering of three-dimensional drawings is covered. Orthographic views and engineer's sketches are developed into isometric, dimetric, perspective, and diagramatic drawings of equipment and their environments. Technical sketching, and hand mechanical lettering, air brush retouching of photographs, handling of commercially prepared pressure sensitive materials, and layout of schematics, charts, and graphs are practiced. Laboratory fee.
DRAFTING (DFT) 235 (3)
BUILDING EQUIPMENT (MECHANICAL AND ELECTRICAL) (2 LEC., 4 LAB.)
Prerequisite: Drafting 183 or Drafting 185. Plans and details for mechanical equipment are drawn. Equipment includes air conditioning, plumbing, and electrical systems. Emphasis is on the use of appropriate symbols and conventions. Mechanical and electrical features are coordinated with structural and architectural components. Laboratory fee.

DRAFTING (DFT) 238 (3)
PIPE AND PRESSURE VESSEL DESIGN (2 LEC., 4 LAB.)
Prerequisites: Drafting 183 and Mathematics 195 or the equivalent. This course presents the methods of piping of fluids for refineries, petrochemical plants, and industrial facilities. ASME codes are applied to the design of pressure vessels, pipe fitting, welded and seamless piping, pumps, and heat exchanges. Drawing techniques are emphasized in orthographic and isometric projections. Laboratory fee.

DRAFTING (DFT) 240 (3)
PRINTED CIRCUIT DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting and Design Technology 231, concurrent enrollment in Drafting and Design Technology 231 or equivalent. This course develops skills in the design of double sided and multilayer printed circuit boards. Students design boards from schematics, parts lists, and manufacturing specifications. Some boards are designed for manual parts insertion and taped artworks. Others are designed for automatic parts insertion and digitized inputs for artworks. Laboratory fee.

DRAFTING (DFT) 241 (3)
INTEGRATED CIRCUIT DESIGN (2 LEC., 4 LAB.)
Prerequisites: Drafting and Design Technology 240, Electronics Technology 190, or equivalent. Must be taken concurrently with Electronics Technology 250. This course develops skills in the design of integrated circuits. Electronic theory and laboratory exercises in active devices are combined with drafting lectures and laboratory drafting to enable students to design simple integrated circuits from schematic diagram and given design rules. Laboratory fee.

DRAFTING (DFT) 242 (3)
ADVANCED INTEGRATED CIRCUIT DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting and Design Technology 241. This course develops skills in the design of complex integrated circuits. Students work from schematic diagrams and two sets of given rules. Work is done to meet industrial standards of current technologies. Laboratory fee.

DRAFTING (DFT) 243 (3)
ADVANCED PRINTED CIRCUIT DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting 240. This course includes the design of double-sided or multilayer boards containing several types of electronic components, requiring selection of integrated circuit chips and combination of gates. Industry standards are followed in design development. Laboratory fee.

DRAFTING (DFT) 245 (3)
COMPUTER AIDED DESIGN (2 LEC., 4 LAB.)
Prerequisites: Drafting 183 or Engineering 105. Capabilities and limitations of the electronic computer as an aid to the designer are studied. Drafting procedures using an interactive system with computer graphics are practiced. Forms and uses of computer aided products are viewed in perspective with the overall design process. Laboratory fee.

DRAFTING (DFT) 246 (3)
ADVANCED CAD - ELECTRONIC (2 LEC., 4 LAB.)
Prerequisite: Drafting 245. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to printed circuit board and integrated circuit design. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee.

DRAFTING (DFT) 247 (3)
APPLIED PRINTED CIRCUIT DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting 240. Special applications of printed circuit design techniques and principles in particular systems of design are studied. Specialization may be focused by classification of the electronic circuits, of resources for design, and of processes for manufacture of the printed circuits. Laboratory fee.

DRAFTING (DFT) 248 (3)
ADVANCED CAD - MECHANICAL (2 LEC., 4 LAB.)
Prerequisite: Drafting 245. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to three-dimensional design, specifically mechanical. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee.

DRAFTING (DFT) 250 (3)
SHEET METAL DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting 183. This course includes the preparation of drawings for sheet metal developments. Topics include bend allowance, relief, standard bends for specific applications, cost factors to consider in manufacturing, metal specifications, finishing, coating, fasteners, and weldments. Laboratory fee.

DRAFTING (DFT) 251 (3)
INDUSTRIAL DESIGN (2 LEC., 4 LAB.)
Prerequisite: Drafting 250. This course includes the design of metal and plastic packages for electronic, optical, and mechanical components. Topics include standard boxes, panels, mounts, brackets, fasteners, grommets, and other standard parts used in the design of packages. Standard catalogs and manuals are used to design packages for specific situations. Laboratory fee.

ECONOMICS (ECO) 201 (3)
PRINCIPLES OF ECONOMICS I (1/2 LEC.)
Sophomore standing is recommended. The principles of macroeconomics are presented. Topics include economic organization, national income determination, money and banking, monetary and fiscal policy, economic fluctuations, and growth. (This course is offered on campus and may be offered via television.)

ECONOMICS (ECO) 202 (3)
PRINCIPLES OF ECONOMICS II (1/2 LEC.)
Prerequisite: Economics 201 or the consent of the instructor. The principles of microeconomics are presented. Topics include the theory of demand, supply, and price of factors. Income distribution and theory of the firm are also included. Emphasis is on international economics and contemporary economic problems.

ELECTRONICS TECHNOLOGY (ET) 135 (6)
DC/AC THEORY AND CIRCUIT ANALYSIS (5 LEC., 3 LAB.)
Prerequisites: Credit or concurrent enrollment in Mathematics 195 or the equivalent. This is an accelerated course combining DC circuits (ET 190) and AC circuits (ET 191) in one semester for students with previous electronics experience or a good mathematics background. Topics include the analysis of resistive, capacitive, inductive, and combination circuits. Magnetism, resonance, schematic symbols, and sine wave analysis are also included. Series, parallel, and series-parallel circuits are covered. Laboratory fee.
ELECTRONICS TECHNOLOGY
(ET) 190 (4)
DC CIRCUITS AND
ELECTRICAL MEASUREMENTS (3 LEC., 3 LAB.)
Prerequisites: Mathematics 195 or the
equivalent recommended. The ma-
thematical theory of direct current circuits
is presented in combination with labora-
tory fundamentals. Emphasis is on
elementary principles of magnetism,
electric concepts and units, diagrams,
and resistance. Electromagnetism,
series and parallel circuits, simple
conductors, and current, and
measuring devices, and basic
electrical calculations are also
included. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 191 (4)
AC CIRCUITS (3 LEC., 3 LAB.)
Prerequisites: Electronics Technology
190 and credit or concurrent
enrollment in Mathematics 195 or the
equivalent. This course covers the
fundamental theories of alternating
current. The theories are applied in
various circuits. Included are
laboratory experiments on power
factor, sine wave analysis, resonant
circuits, capacitivity, inductance, Q of
coils, magnetism, and resistance.
Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 192 (3)
DIGITAL COMPUTER PRINCIPLES (2 LEC., 2 LAB.)
Prerequisite: Electronics Technology
190. This course is a study of number
systems and arithmetic in various
bases. Included are truth tables, relay
and diode logic analysis, logic
symbols, and basic functions including
NOT, AND, NAND, OR, NOR, and EX.
OR. Logic manipulations include basic
laws, minterm, maxterm, sum of
products, and sum of terms, and product of
sums expression forms. Venn diagrams,
Veitch and Karnaugh reduction
techniques, and circuit synthesis are
also covered using design examples.
Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 193 (4)
ACTIVE DEVICES (3 LEC., 3 LAB.)
Prerequisites: Electronics Technology
190 and credit or concurrent
enrollment in Electronics Technology
191. Semiconductor devices (active devices)
are the focus of this course. Topics
include composition, parameters,
linear and non-linear characteristics, in
circuit action, amplifiers, rectifiers,
and switching. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 194 (3)
INSTRUMENTATION (2 LEC., 3 LAB.)
Prerequisites: Electronics Technology
190 and credit or concurrent
enrollment in Electronics Technology
191 and 193. Electrical devices for
measurement and instrumentation are
studied and applied to work situations.

Included are basic AC and DC
measurement meters, impedance
bridges, oscilloscopes, signal
generators, signal-tracers, and tube
and transistor testers. The course
concludes with a study of audio
frequency test methods and equip-
ment. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 235 (4)
FUNDAMENTALS OF
ELECTRICITY (3 LEC., 3 LAB.)
This course is an introduction to
electricity for students in related
programs. Topics include basic AC and
DC theory, voltage, current, and
resistance, and electrical wiring
principles and schematics.

Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 238 (4)
LINEAR INTEGRATED
CIRCUITS (3 LEC., 3 LAB.)
Prerequisites: Electronics Technology
190, 191, and 193. Differential ampli-
fiers, operational amplifiers, and
integrated circuit timers are investi-
gated. Topics include comparators,
detectors, integrating and non-inverting
amplifiers, operational amplifiers,
differentiating and integrating amplifiers, and
instrumentation amplifiers. Digital to
analog converters, analog to digital
converters, special op amp applica-
tions, and integrated circuits timers
are also included. Limitations and
specifications of integrated circuits are
covered. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 239 (3)
MICROWAVE TECHNOLOGY (3 LEC.)
Prerequisites: Electronics Technology
194 and Electronics Technology 231.
Microwave concepts such as
propagation, transmission lines
including waveguides, standing
waves, impedance matching, basic
antennas and various basic
microwave measurements are
covered. Microwave measurement
techniques such as power and
frequency meter, measurements and
calibration, VSWR determinations,
kystron characteristics, and
waveguide tuning will be
demonstrated. A basic radar system
is discussed as time permits.

ELECTRONICS TECHNOLOGY
(ET) 250 (4)
PRINCIPLES OF ELECTRONIC
INTEGRATED CIRCUITS (3 LEC., 2 LAB.)
Prerequisites: Electronics Technology
190 and concurrent enrollment in
Drafting and Design Technology 241.
This is a survey course of solid state
devices and their associated circuitry.
This course is intended to teach the
student fundamentals of common
electronic circuits which contain
integrated circuits and to teach
elements of solid state devices from
the principle of the PN junction through
the function of integrated circuits.
Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 260 (4)
SINUSOIDAL CIRCUITS (3 LEC., 3 LAB.)
Prerequisites: Electronics Technology
191 and 193. Power supply circuits are
presented. Included are full wave
rectification, filtering, and regulation.
Amplifier circuits involving large and
small signal analysis, coupling, classes of
operation and feedback techniques
are also covered. Semiconductor
devices considered include the Zener
closer, SCR, TRIAC, MOSFET, JFET,
MOS, and unjuction. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 261 (4)
PULSE AND SWITCHING
CIRCUITS (3 LEC., 3 LAB.)
Prerequisites: Electronics Technology
191 and 193. Thevenin's theorem and
superposition are applied to AC and DC
sources. Waveform analysis is studied
including pulse characteristics and
pulsetrain measurements of harmonic
content. Other topics include RC and
RL circuit response to step inputs,
exponential forms, diode clipper and
delay circuits, and transistor action in
digital circuits involving saturation and
cutoff. Gate types of RTL, DTL, TTL,
ECL, and MOS technologies are also
included. The bistable, monostable,
and astable types of multivibrator
circuits are covered. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 263 (4)
DIGITAL COMPUTER THEORY (3 LEC., 3 LAB.)
Prerequisite: Electronics Technology
192. This course focuses on basic
circuit computer. Included are flip-
flops, shift registers, basic
(random and nonsequential),
combinational, and A to D
converters. Analysis of specific current
integrated circuits is also included.
Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 264 (4)
DIGITAL SYSTEMS (3 LEC., 3 LAB.)
Prerequisite: Electronics Technology
192. The three major component
systems of a digital computer are
studied. The arithmetic-logic section
deals with number
representation within a machine. The
memory studies center around the
operation of core and semiconductor
memory assemblies which include
addressing and data buffering. The
control section deals with state,
distributor, and ROM type of control
circuits. Laboratory fee.

ELECTRONICS TECHNOLOGY
(ET) 265 (3)
DIGITAL RESEARCH (1 LEC., 5 LAB.)
Prerequisites: Electronics Technology
192 and concurrent enrollment in Electronics Technology 263 and 264. The design, layout, construction, and calibrating of a major electronic project are covered. The project uses computer programming are also

**ENGINEERING (EGR) 105**  
**ENGINEERING DESIGN**  
GRAPHICS (2 LEC., 4 LAB.)

Graphic fundamentals are presented for engineering communications and engineering design. Topics include standard engineering graphical techniques, auxiliaries, sections, graphical analysis, and pictorial and working drawings. Laboratory fee.

**ENGINEERING (EGR) 106**  
**DESCRIPTIVE GEOMETRY** (2 LEC., 4 LAB.)

Prerequisite: Drafting 183 or Engineering 105. This course provides training in the visualization of three-dimensional structures. Emphasis is on accurately representing these structures in drawings by analyzing the true relationship between points, lines, and planes. Included are the generation and classification of lines, surfaces, intersections, developments, auxiliaries, and revolutions. Laboratory fee.

**ENGINEERING (EGR) 107**  
**ENGINEERING MECHANICS I** (3 LEC.)

Prerequisite: Credit or concurrent enrollment in mathematics 124. This course is a study of the statics of particles and rigid bodies with vector mathematics in three dimensional space. Topics include the equilibrium of forces and force systems, resultant, free body diagrams, friction, centroids and moments of inertia, virtual works, and potential energy. Distributed forces, centers of gravity, and analysis of structures, beams, and cables are also presented.

**ENGINEERING (EGR) 108**  
**COMPUTER METHODS IN ENGINEERING** (3 LEC.)

Prerequisite: Credit or concurrent enrollment in Mathematics 126. Fundamental methods of numerical analysis with applications by computer programming are presented. Topics include computer programming, recursion formulas, successive approximations, error analysis, non-linear equations, and systems of linear equations and matrix methods. Probabilistic models, interpolation, determination of parameters, numerical integration, and solution of ordinary differential equations are also covered.

**ENGINEERING (EGR) 188**  
**STATICS** (3 LEC.)

Prerequisite: Credit or concurrent enrollment in Mathematics 196. This course is a study of force and force systems, resultants, friction, centroids, conditions of equilibrium, analysis of trusses, and frame structures. Both numerical and graphical methods are used.

**ENGINEERING (EGR) 189**  
**CHARACTERISTICS AND STRENGTHS OF MATERIALS** (3 LEC.)

Prerequisite: Engineering 188. The characteristics and strengths of materials are examined. Emphasis is on loads, stresses, and deformations within the elastic range.

**ENGINEERING (EGR) 201**  
**ENGINEERING MECHANICS II** (3 LEC.)

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. This is a study of dynamics. Particles and rigid bodies are examined as they interact with applied forces. Both constrained and general motions are included. Space, time, mass, velocity, acceleration, work, energy, impulse, and momentum are covered.

**ENGINEERING (EGR) 202**  
**ENGINEERING MECHANICS OF MATERIALS** (3 LEC.)

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. Simple structural elements are studied. Emphasis is on forces, deformation, and material properties. The concepts of stress, strain, and elastic properties are presented. Analysis of thin walled vessels, members loaded in tension, torsion, bending and shear, combined loadings, and stability conditions are included. Behavioral phenomena such as fracture, fatigue, and creep are introduced.

**ENGINEERING (EGR) 203**  
**ENGINEERING PRODUCTION** (1 LEC., 5 LAB.)

Prerequisite: Engineering 105 or the consent of the instructor. The standard machining of metals is covered. Layout, turning, boring, shaping, drilling, threading, milling, and grinding are all included. The manufacturing of interchangeable parts, fixtures, and jigs with applications is studied. Laboratory fee.

**ENGINEERING (EGR) 204**  
**ELECTRICAL SYSTEMS ANALYSIS** (3 LEC.)

Prerequisite: Credit or concurrent enrollment in Mathematics 225. Electrical science is introduced. Included are fundamental electrical systems and signals. Basic concepts of electricity and magnetism with mathematical representation and computation are also covered.

**ENGINEERING (EGR) 205**  
**PLANE SURVEYING** (2 LEC., 4 LAB.)

Prerequisites: Mathematics 102 or 196 and Engineering 105 or Drafting 183. This course focuses on plane surveying. Topics include surveying instruments, basic measuring procedures, vertical and horizontal control,
The development of skills is the focus of this course. Skills in writing and in the critical analysis of prose are included. (This course is offered on campus and may be offered via television.)

ENGLISH (ENG) 102 (3)
COMPOSITION AND LITERATURE (3 LEC.)
Prerequisite: English 101. This course continues the development of skills in writing. Emphasis is on analysis of literary readings, expository writing, and investigative methods of research. (This course is offered on campus and may be offered via television.)

ENGLISH (ENG) 203 (3)
WORLD LITERATURE (3 LEC.)
Prerequisite: English 102. Significant works of continental Europe are studied. The Greek Classical Period through the Renaissance is covered.

ENGLISH (ENG) 204 (3)
WORLD LITERATURE (3 LEC.)
Prerequisite: English 102. Significant works of continental Europe, England, and America are studied. The time period since the Renaissance is covered.

ENGLISH (ENG) 205 (3)
AMERICAN LITERATURE (3 LEC.)
Prerequisite: English 102. Significant works of American writers before Walt Whitman are studied. Emphasis is on the context of the writers' times.

ENGLISH (ENG) 206 (3)
AMERICAN LITERATURE (3 LEC.)
Prerequisite: English 102. Significant works of American writers from Walt Whitman to the present are studied.

ENGLISH (ENG) 209 (3)
CREATIVE WRITING (3 LEC.)
Prerequisite: English 102. The writing of fiction is the focus of this course. Included are the short story, poetry, and short drama.

ENGLISH (ENG) 210 (3)
TECHNICAL WRITING (3 LEC.)
Prerequisite: English 101 and 102 or Communications 131 and 132. The technical style of writing is introduced. Emphasis is on the writing of technical papers, reports, proposals, progress reports, and descriptions.

ENGLISH (ENG) 215 (3)
STUDIES IN LITERATURE (3 LEC.)
Prerequisite: English 102. Selections in literature are read, analyzed, and discussed. Selections are organized by genre, period, or geographical region. Course titles and descriptions are available each semester prior to registration. This course may be repeated for credit.

ENGLISH (ENG) 216 (3)
STUDIES IN LITERATURE (3 LEC.)
Prerequisite: English 102. Selections in literature are read, analyzed, and discussed. Selections are organized by theme, interdisciplinary content, or major author. Course titles and descriptions are available each semester prior to registration. This course may be repeated for credit.

FRENCH (FR) 101 (4)
BEGINNING FRENCH (3 LEC., 2 LAB.)
Prerequisite: French 102 or the equivalent. This course is a continuation of French 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee.

FRENCH (FR) 102 (4)
BEGINNING FRENCH (3 LEC., 2 LAB.)
Prerequisite: French 101 or the equivalent. This course is a continuation of French 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee.

FRENCH (FR) 201 (3)
INTERMEDIATE FRENCH (3 LEC.)
Prerequisite: French 102 or the equivalent. Reading, composition, and intense oral practice are covered in this course. Grammar is reviewed.

FRENCH (FR) 202 (3)
INTERMEDIATE FRENCH (3 LEC.)
Prerequisite: French 201 or the equivalent. This course is a continuation of French 201. Contemporary literature and composition are studied.

GEOGRAPHY (GPY) 101 (3)
PHYSICAL GEOGRAPHY (3 LEC.)
The physical composition of the earth is surveyed. Topics include weather, climate, topography, plant and animal life, land, and the sea. Emphasis is on the earth in space, use of maps and charts, and place geography.

GEOGRAPHY (GPY) 102 (3)
ECONOMIC GEOGRAPHY (3 LEC.)
The relation of humans to their environment is studied. Included is the use of natural resources. Problems of production, manufacturing, and distributing goods are explored. Primitive subsistence and commercialism are considered.

GEOGRAPHY (GPY) 103 (3)
CULTURAL GEOGRAPHY (3 LEC.)
This course focuses on the development of regional variations of culture. Topics include the distribution of races, religions, and languages. Aspects of material culture are also included. Emphasis is on origins and diffusion.

GEOLOGY (GEO) 101 (4)
PHYSICAL GEOLOGY (3 LEC., 3 LAB.)
This course is for science and non-science majors. It is a study of earth materials and processes. Included is an introduction to geochemistry, geophysics, the earth's interior, and magnetism. The earth's setting in space, minerals, rocks, structures, and geologic processes are also included. Laboratory fee.

GEOLOGY (GEO) 102 (4)
HISTORICAL GEOLOGY (3 LEC., 3 LAB.)
This course is for science and non-science majors. It is a study of earth materials and processes within a developmental time perspective. Fossils,
geologic maps, and field studies are used to interpret geologic history. Laboratory fee.

GEOLGY (GEO) 201 (4)
INTRODUCTION TO ROCK AND MINERAL IDENTIFICATION (3 LEC., 3 LAB.)
Prerequisites: Geology 101 and Geology 102. This course introduces crystallography, geochemistry, descriptive mineralogy, petrology, and phase equilibria. Crystal models and hand specimens are studied as an aid to rock and mineral identification. Laboratory fee.

GEOLGY (GEO) 202 (4)
INTRODUCTION TO ROCK AND MINERAL IDENTIFICATION (3 LEC., 3 LAB.)
Prerequisites: Geology 101 and Geology 102. This course introduces crystallography, geochemistry, descriptive mineralogy, petrology, and phase equilibria. Crystal models and hand specimens are studied as an aid to rock and mineral identification. Laboratory fee.

GEOLGY (GEO) 205 (4)
FIELD GEOLOGY (3 LEC., 3 LAB.)
Prerequisites: Eight credit hours of geology or the consent of the instructor. Geological features, landforms, minerals, and fossils are surveyed. Map reading and interpretation are also included. Emphasis is on the identification, classification and collection of specimens in the field. This course may be repeated for credit.

GOVERNMENT (GVT) 201 (3)
AMERICAN GOVERNMENT (3 LEC.)
Prerequisite: Sophomore standing recommended. This course is an introduction to the study of political science. Topics include the origin and development of constitutional democracy (United States and Texas), federalism and intergovernmental relations, local government, parties, politics, and political behavior. The course satisfies requirements for Texas State Teacher’s Certification. (This course is offered on campus and may be offered via television.)

GOVERNMENT (GVT) 205 (3)
STUDIES IN GOVERNMENT (3 LEC.)
Prerequisite: Sophomore standing and 6 hours of history or government. Selected topics in government are presented. The course may be repeated once for credit when different topics are presented.

GRAPHIC ARTS (GA) 131 (3)
GRAPHIC PROCESSES (2 LEC., 4 LAB.)
This course focuses on industrial requirements of employees in graphic arts. Habits and abilities are included. An overview of equipment is provided and its use demonstrated. Laboratory fee.

GRAPHIC ARTS (GA) 134 (3)
BASIC CAMERA OPERATIONS (2 LEC., 4 LAB.)
Prerequisite: Graphic Arts 131. The operations and mechanics of the photo-lithographic camera are described. Included are fundamentals of halftone photography, lithographic negative stripping, and plate making. Laboratory fee.

GRAPHIC ARTS (GA) 138 (3)
COPY PREPARATION (2 LEC., 4 LAB.)
Prerequisite: Concurrent enrollment in Graphic Arts 131. The basic operations of the varityper and headliner are studied. Letters, memos, manuals, tables, graphs, charts, reports, and booklets are produced. The drafting table and modern drafting tools are used. Steps from setting bold heading to finishing rough copy and preparing for the photographic master are included. Laboratory fee.

GRAPHIC ARTS (GA) 140 (3)
OFFSET PRINTING I (2 LEC., 4 LAB.)
Prerequisite: Credit or concurrent enrollment in Graphic Arts 131. The principles of offset lithography are covered. Included is operation of the small offset lithographic press. Laboratory fee.

GRAPHIC ARTS (GA) 206 (3)
GRAPHIC PROJECTS (2 LEC., 4 LAB.)
Prerequisite: Concurrent enrollment or 18 hours of credit in Graphic Arts. This course provides problem analysis and project development. It gives the student the opportunity of producing a complete printed product. Laboratory fee.

GRAPHIC ARTS (GA) 240 (3)
OFFSET PRINTING II (2 LEC., 4 LAB.)
Prerequisite: Graphic Arts 140. Continuing development of the student in offset lithography is offered. Capabilities and limitations of presses are explored. Printed products are planned and produced. Emphasis is on standard production requirements and maintenance of equipment. Laboratory fee.

GRAPHIC ARTS (GA) 714, 814 (4)
(See Cooperative Work Experience)

HISTORY (HST) 101 (3)
HISTORY OF THE UNITED STATES (3 LEC.)
The history of the United States is presented, beginning with the European background and first discoveries. The pattern of exploration, settlement, and development of institutions is followed throughout the colonial period and the early national experience to 1877. (This course is offered on campus and may be offered via television.)

HISTORY (HST) 102 (3)
HISTORY OF THE UNITED STATES (3 LEC.)
The history of the United States is surveyed from the reconstruction era to the present day. The study includes social, economic, and political aspects of American life. The development of the United States as a world power is followed. (This course is offered on campus and may be offered via television.)

HISTORY (HST) 105 (3)
WESTERN CIVILIZATION (3 LEC.)
The civilization in the West from ancient time through the Enlightenment is surveyed. Topics include the Mediterranean world, including Greece and Rome, the Middle Ages, and the beginnings of modern history. Particular emphasis is on the Renaissance, Reformation, the rise of the national state, the development of parliamentary government, and the influences of European colonization.

HISTORY (HST) 106 (3)
WESTERN CIVILIZATION (3 LEC.)
This course is a continuation of History 105. It follows the development of civilization from the enlightenment to current times. Topics include the Age of Revolution, the beginning of industrialism, 19th century, and the social, economic, and political factors of recent world history.

HISTORY (HST) 110 (3)
THE HERITAGE OF MEXICO (3 LEC.)
This course (cross-listed as Anthropology 110) is taught in two parts each semester. The first part of the course deals with the archaeology of Mexico beginning with the first humans to enter the North American continent and culminating with the arrival of the Spanish in 1519 A.D. Emphasis is on archaic cultures, the Maya, the Toltec, and the Aztec empires. The second
part of the course deals with Mexican history and modern relations between the United States and Mexico. The student may register for either History 110 or Anthropology 110, but may receive credit for only one of the two.

**HISTORY (HST) 112 (3)**
LATIN AMERICAN HISTORY (3 LEC.)
This course presents developments and personalities which have influenced Latin American history. Topics include Indian cultures, the Conquistadors, Spanish administration, the wars of independence, and relations with the United States. A brief survey of contemporary problems concludes the course.

**HISTORY (HST) 204 (3)**
AMERICAN MINORITIES (3 LEC.)
Prerequisites: Sociology 101 or 6 hours of U.S. history recommended. Students may register for either History 204 or Sociology 204 but may receive credit for only one of the two. The principal minority groups in American society are the focus of this course. The sociological significance and historic contributions of the groups are presented. Emphasis is on current problems of intergroup relations, social movements, and related social changes.

**HISTORY (HST) 205 (3)**
STUDIES IN U.S. HISTORY (3 LEC.)
Prerequisite: Sophomore standing and 6 hours of American history. Selected topics in the history of the United States are presented. The course may be repeated once for credit when different topics are presented.

**HUMAN DEVELOPMENT (HD) 100 (1)**
EDUCATIONAL ALTERNATIVES (1 LEC.)
The learning environment is introduced. Career, personal study skills, educational planning, and skills for living are all included. Emphasis is on exploring career and educational alternatives and learning a systematic approach to decision-making. A wide range of learning alternatives is covered, and opportunity is provided to participate in personal skills seminars.

**HUMAN DEVELOPMENT (HD) 102 (1)**
SPECIAL TOPICS IN HUMAN DEVELOPMENT (1 LEC.)
This is a course intended to help the student succeed in college. Topics such as stress management, communications training for the handicapped, career exploration techniques, or educational concerns of adult students may be included. This course may be repeated for credit.

**HUMAN DEVELOPMENT (HD) 104 (3)**
EDUCATIONAL AND CAREER PLANNING (3 LEC.)
This course is designed to teach students the on-going process of decision making as it relates to career/life and educational planning. Students identify the unique aspects of themselves (interests, skills, values), They investigate possible work environments and develop a plan for professional satisfaction. Job search and survival skills are also considered.

**HUMAN DEVELOPMENT (HD) 105 (3)**
BASIC PROCESSES OF INTERPERSONAL RELATIONSHIPS (3 LEC.)
This course is designed to help the student increase self-awareness and to learn to relate more effectively to others. Students are made aware of their feelings, values, attitudes and behaviors. The course content focuses on developing communication skills such as assertiveness, verbal and nonverbal behavior, listening, and conflict resolution.

**HUMAN DEVELOPMENT (HD) 106 (3)**
PERSORAL AND SOCIAL GROWTH (3 LEC.)
This course focuses on the interaction between the individual and society. Societal influences, adjustment to social change, personal roles, and problem-solving are stressed. Components of a healthy personality, alternative behaviors, and lifestyles that demonstrate a responsibility to self and society are studied.

**HUMAN DEVELOPMENT (HD) 107 (3)**
DEVELOPING LEADERSHIP BEHAVIOR (3 LEC.)
The basic purpose of this course is to help the student develop leadership and human relation skills. Topics include individual and group productivity, value systems, communication skills, and positive attitudes in a group environment. The concepts of leadership are explored through both theory and practice. These leadership activities can be applied to the student's personal, business, and professional interactions.

**HUMAN DEVELOPMENT (HD) 110 (1)**
ASSESSMENT OF PRIOR LEARNING (1 LEC.)
Prerequisite: Limited to students in Technical/Occupational programs. The consent of the instructor is required. This course is designed to assist students in documenting prior learning for the purpose of applying for college credit. Students develop a portfolio which includes a statement of educational/career goals, related non-collegiate experiences which have contributed to college-level learning, and documentation of such experiences. This course may be repeated for credit.

**HUMAN DEVELOPMENT (HD) 108 (3)**
INTRODUCTION TO THE HUMANITIES (3 LEC.)
Related examples of humans' creative achievements are examined. Emphasis is on understanding the nature of humans and the values of human life. (This course is offered on campus and may be offered via television. Laboratory fee required for television course.)

**HUMANITIES (HUM) 101 (3)**
ADVANCED HUMANITIES (3 LEC.)
Prerequisite: Humanities 101 and/or the consent of the instructor. Human values are presented through the context of the humanities. Universal concerns are explored, such as a person's relationship to self and to others and the search for meaning. The human as a loving, believing and hating being is also studied. Emphasis is on the human as seen by artists, playwrights, filmmakers, musicians, dancers, philosophers, and theologians. The commonality of human experience across cultures and the premises for value choices are also stressed.

**HUMAN SERVICES (HS) 131 (3)**
ORIENTATION TO HUMAN SERVICES (3 LEC.)
This course introduces the field of human services. Students explore their interest and potential for working in a social service agency. Contacts with community social service agencies are made.

**HUMAN SERVICES (HS) 230 (3)**
COUNSELING FOR THE PARAPROFESSIONAL (3 LEC.)
Prerequisite: Permission of the coordinator of the Human Services Program. The principles and practices of interviewing and counseling are introduced. The effectiveness of these techniques is explored for counselors, group counselor aides, mental health or social worker
JOURNALISM (IN) 102 (3)
NEWS GATHERING AND WRITING (2 LEC., 3 LAB.)
Prerequisite: Journalism 102 or professional experience approved by the instructor. This course is a continuation of Journalism 102. Students study and practice writing more complex stories, such as features, profiles, follow-up stories, and sidebars. Students are required to write for the campus newspaper.

JOURNALISM (IN) 104 (1)
STUDENT PUBLICATIONS (3 LAB.)
Prerequisite: The consent of the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. Individual staff assignments are made for the student newspaper. Assignments may be made in writing, advertising, photography, cartooning, or editing. Students are required to work at prescribed periods under supervision and must attend staff meetings.

JOURNALISM (IN) 201 (3)
FEATURE WRITING (3 LEC.)
Prerequisite: Six hours of Journalism or the consent of the instructor. This course covers research, interviewing techniques, and the development of feature stories for use in newspapers and magazines.

JOURNALISM (IN) 204 (3)
NEWS EDITING AND COPY READING (3 LEC.)
Prerequisite: Journalism 102. This course focuses on editing news for newspaper, radio, and television. Emphasis is on writing headlines and laying out pages.

MANAGEMENT (MGT) 136 (3)
PRINCIPLES OF MANAGEMENT (3 LEC.)
The process of management is studied. The functions of planning, organizing, leading, and controlling are included. Particular emphasis is on policy formulation, decision-making processes, operating problems, communications theory, and motivation techniques.

MANAGEMENT (MGT) 137 (3)
PRINCIPLES OF RETAILING (3 LEC.)
The operation of the retail system of distribution is examined. Topics include consumer demand, requirements, computer use, store location and layout, and credit policies. Interrelationships are emphasized.

MANAGEMENT (MGT) 150 (4)
MANAGEMENT TRAINING (20 LAB.)
Prerequisite: Concurrent enrollment in Management 154 or the consent of the instructor. This course consists of supervised on-the-job training, giving practical experience to students of Business Management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge.

MANAGEMENT (MGT) 151 (4)
MANAGEMENT TRAINING (20 LAB.)
Prerequisite: Concurrent enrollment in Management 155 or the consent of the instructor. This course consists of supervised on-the-job training, giving practical experience to students of Business Management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge.

MANAGEMENT (MGT) 153 (3)
SMALL BUSINESS MANAGEMENT (3 LEC.)
The student will be studying the fundamental approaches to planning, establishing and operating a small business. The day-to-day operation of the business and reporting procedures will be studied as well as exploring the concepts of general management.

MANAGEMENT (MGT) 154 (2)
MANAGEMENT SEMINAR: ROLE OF SUPERVISION (2 LEC.)
Prerequisite: Concurrent enrollment in Management 150 or the consent of the instructor. This seminar is designed to explore the role of the supervisor from an applied approach. Emphasis is on improving leadership skills, motivational techniques, effective time management, goal-setting, planning and overcoming communication problems.

MANAGEMENT (MGT) 155 (2)
MANAGEMENT SEMINAR: PERSONNEL MANAGEMENT (2 LEC.)
Prerequisite: Concurrent enrollment in Management 151 or the consent of the instructor. This course is designed to explore the manager's role in attracting, selecting, and retaining qualified employees. Planning for and recruiting employees, selecting high performers, improving interviewing skills, conducting performance appraisals, training, EEO legislation, and labor relations are emphasized through an applied approach.

MANAGEMENT (MGT) 157 (3)
SMALL BUSINESS BOOKKEEPING AND ACCOUNTING PRACTICES (3 LEC.)
This course focuses on basic bookkeeping and accounting techniques for
the small business. The techniques are applied to the analysis and preparation of basic financial statements.

**MANAGEMENT (MGT) 160 (3)**
**PRINCIPLES OF PURCHASING (3 LEC.)**
An introduction to the purchasing function is provided. The course covers purchasing tasks and responsibilities, analytical techniques in buying, organizational interrelationships and coordination, measurement and control, and legal implications. Special emphasis is placed on the five tenets of buying: quality, quantity, time, price, and source.

**MANAGEMENT (MGT) 206 (3)**
**PRINCIPLES OF MARKETING (3 LEC.)**
The scope and structure of marketing are examined. Marketing functions, consumer behavior, market research, sales forecasting, and relevant state and federal laws are analyzed.

**MANAGEMENT (MGT) 210 (3)**
**SMALL BUSINESS CAPITALIZATION, ACQUISITION AND FINANCE (3 LEC.)**
The student studies alternative strategies of financial planning, capitalization, profits, acquisition, ratio analysis, and other related financial operations required of small business owners. The preparation and presentation of a loan proposal are included.

**MANAGEMENT (MGT) 211 (3)**
**SMALL BUSINESS OPERATIONS (3 LEC.)**
Problems of daily operations of small business are introduced. Topics include compliance with regulations, personnel administration, accounts receivable management, and business insurance.

**MANAGEMENT (MGT) 212 (1)**
**SPECIAL PROBLEMS IN BUSINESS (1 LEC.)**
Each student will participate in the definition and analysis of current business problems. Special emphasis will be placed upon relevant problems and pragmatic solutions that integrate total knowledge of the business process in American society. This course may be repeated for credit up to a maximum of three hours credit.

**MANAGEMENT (MGT) 220 (3)**
**MATERIALS MANAGEMENT (3 LEC.)**
A study of the materials management concept, which includes the separate functions of purchasing, transportation, production, inventory control, warehousing, and traffic is provided. Special emphasis is given to cost effectiveness, the materials cycle, contribution to organizational objectives, performance measurement, inventory cost trade-offs, and forecasting.

**MANAGEMENT (MGT) 222 (3)**
**QUALITY ASSURANCE (3 LEC.)**
A study of the techniques, concepts, and systems utilized in controlling quality is included. Special emphasis is placed on sampling techniques (methodology and results), acceptance/rejection procedures, procurement quality assurance, tooling inspection, and quality program planning and maintenance.

**MANAGEMENT (MGT) 230 (3)**
**SALESMANSHIP (3 LEC.)**
The selling of goods and ideas is the focus of this course. Buying motives, sales psychology, customer approach, and sales techniques are studied.

**MANAGEMENT (MGT) 233 (3)**
**ADVERTISING AND SALES PROMOTION (3 LEC.)**
This course introduces the principles, practices, and media of persuasive communication. Topics include buyer behavior, use of advertising media, and methods of promoting salespeople and retailers. The management of promotion programs is covered, including goals, strategies, evaluation, and control of promotional activities.

**MANAGEMENT (MGT) 242 (3)**
**PERSONNEL ADMINISTRATION (3 LEC.)**
This course presents the fundamentals, theories, principles, and practice of personnel management. Emphasis is on people and their employment. Topics include recruitment, selection, training, job development, interactions with others, labor management relations, and government regulations. The managerial functions of planning, organizing, staffing, directing, and controlling are also covered.

**MANAGEMENT (MGT) 250 (4)**
**MANAGEMENT TRAINING (20 LAB.)**
Prerequisite: Concurrent enrollment in Management 254 or the consent of the instructor. This course consists of supervised on-the-job training, giving practical experience to students of Business Management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge.

**MANAGEMENT (MGT) 251 (4)**
**MANAGEMENT SEMINAR: ORGANIZATIONAL MANAGEMENT TRAINING (20 LAB.)**
Prerequisite: Concurrent enrollment in Management 255 or the consent of the instructor. This course consists of supervised on-the-job training, giving practical experience to students of Business Management. The course is designed to develop the student's managerial skills through the completion of job-related projects which will enhance and complement classroom knowledge.

**MANAGEMENT (MGT) 254 (2)**
**MANAGEMENT SEMINAR: ORGANIZATIONAL DEVELOPMENT**
Prerequisite: Concurrent enrollment in Management 250 or the consent of the instructor. The role of managers in managing human resources, group interaction and team building, motivational dynamics, improving interpersonal communication skills, and dealing with company politics and conflict are explored in this course through an applied approach.

**MANAGEMENT (MGT) 255 (2)**
**MANAGEMENT SEMINAR: PLANNING, STRATEGY, AND THE DECISION PROCESS (2 LEC.)**
Prerequisite: Concurrent enrollment in Management 251 or the consent of the instructor. This course is designed to develop managerial skills in individual and group decision-making and cause analysis. Rational and creative problem-solving skills are developed. Personal and organizational strategy skills are enhanced.

**MANAGEMENT (MGT) 280 (3)**
**INDUSTRIAL MANAGEMENT (3 LEC.)**
Prerequisite: Mid-Management 136. This course is an overview of the relationship of industrial functions. The philosophy and practices of management are included. Topics cover plant location and layout.

**MATHEMATICS**
(See also Developmental Mathematics. Supplementary instruction in mathematics is available through the Learning Resources Center.)

**MATHEMATICS (MTH) 101 (3)**
**COLLEGE ALGEBRA (3 LEC.)**
Prerequisite: Two years of high school algebra or Developmental Mathematics 093. This course is a study of functions and relations, absolute values, variation, quadratic equations, complex numbers, functions of two variables, systems of equations and inequalities, elementary aspects of the theory of equations, progressions, the binomial theorem, and algebraic proof.

**MATHEMATICS (MTH) 102 (3)**
**PLANE TRIGONOMETRY (3 LEC.)**
Prerequisite: Mathematics 101 or equivalent. This course is a study of angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, logarithms, and complex numbers.

**MATHEMATICS (MTH) 104 (5)**
**ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY I (5 LEC.)**
Prerequisites: Two years of high school algebra or Developmental Mathematics 093. This course includes the concept of function, polynomials of one or more variables, arithmetic and geometric sequences, combinations and the binomial theorem, rational functions, exponential functions, logarithmic functions, trigonometric functions, complex numbers, vectors, functions of two variables and
analytical geometry which includes conics, transformation of coordinates, polar coordinates, parametric equations and three dimensional space.

**MATHEMATICS (MTH) 105**

**ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY II (5 LEC.)**

Prerequisite: Mathematics 104. This course is a continuing study of the topics of Mathematics 104.

**MATHEMATICS (MTH) 106**

**ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY III (5 LEC.)**

Prerequisites: Two years of high school algebra and one semester of trigonometry. This course is a study of the algebra of functions. It includes polynomial, rational, exponential, logarithmic and trigonometric functions, functions of two variables, complex numbers, vectors and analytic geometry which includes conics, transformation of coordinates, polar coordinates, and parametric equations.

**MATHEMATICS (MTH) 111**

**MATHEMATICS FOR BUSINESS AND ECONOMICS I (3 LEC.)**

Prerequisite: Two years of high school algebra or Developmental Mathematics 093. This course includes equations, inequalities, matrices, linear programming, and linear, quadratic, polynomial, rational, exponential, and logarithmic functions. Applications to business and economics problems are emphasized.

**MATHEMATICS (MTH) 112**

**MATHEMATICS FOR BUSINESS AND ECONOMICS II (3 LEC.)**

Prerequisite: Mathematics 111. This course includes sequences and limits, differential calculus, integral calculus, and appropriate applications.

**MATHEMATICS (MTH) 115**

**COLLEGE MATHEMATICS I (3 LEC.)**

Prerequisites: One year of high school algebra and one year of high school geometry or two years of high school algebra or Developmental Mathematics 093. Designed for liberal arts students, this course includes the study of logic, mathematical patterns, mathematical recreations, systems of numeration, mathematical systems, sets and statements and sets of numbers. Historical aspects of selected topics are emphasized.

**MATHEMATICS (MTH) 116**

**COLLEGE MATHEMATICS II (3 LEC.)**

Prerequisite: One year of high school algebra and one year of high school geometry or two years of high school algebra or Developmental Mathematics 093. Designed for liberal arts students, this course includes the study of algebra, linear programming, permutations, combinations, probability and geometry. Historical aspects of selected topics are emphasized.

**MATHEMATICS (MTH) 117**

**FUNDAMENTAL CONCEPTS OF MATHEMATICS FOR ELEMENTARY TEACHERS (3 LEC.)**

This course includes the structure of the real number system, geometry, and mathematical analysis. Emphasis is on the development of mathematical reasoning needed for elementary teachers.

**MATHEMATICS 121**

**ANALYTIC GEOMETRY (3 LEC.)**

Prerequisite: Mathematics 102 or equivalent. This course is a study of the real numbers, distance, the straight line, conics, transformation of coordinates, polar coordinates, parametric equations, and three-dimensional space.

**MATHEMATICS (MTH) 124**

**CALCULUS I (5 LEC.)**

Prerequisite: Mathematics 105 or 106 or 121 or the equivalent. This course is a study of limits, continuity, derivatives, and integrals of algebraic and transcendental functions, with applications.

**MATHEMATICS (MTH) 130**

**BUSINESS MATHEMATICS (3 LEC.)**

Prerequisite: One year of high school algebra or Developmental Mathematics 091 or the equivalent. This course is intended primarily for students in specialized occupational programs. It is a study of simple and compound interest, bank discount, payrolls, taxes, insurance, mark up and mark down, corporate securities, depreciation, and purchase discounts.

**MATHEMATICS (MTH) 139**

**APPLIED MATHEMATICS (3 LEC.)**

Prerequisite: One year of high school algebra or Developmental Mathematics 091 or the equivalent. This course is intended primarily for students in specialized occupational programs. It is a study of simple and compound interest, bank discount, payrolls, taxes, insurance, mark up and mark down, corporate securities, depreciation, and purchase discounts.

**MATHEMATICS (MTH) 196**

**TECHNICAL MATHEMATICS (3 LEC.)**

Prerequisite: Mathematics 195. This course is designed for technical students. It includes a study of topics in algebra, an introduction to logarithms, and an introduction to trigonometry, trigonometric functions and the solution of triangles.

**MATHEMATICS (MTH) 202**

**INTRODUCTORY STATISTICS (3 LEC.)**

Prerequisite: Mathematics 124 or equivalent. This course is a study of collection and tabulation of data, bar charts, graphs, sampling, measures of central tendency and variability, correlation, index numbers, statistical distributions, probability, and application to various fields.

**MATHEMATICS (MTH) 221**

**LINEAR ALGEBRA (3 LEC.)**

Prerequisite: Mathematics 124 or equivalent. This course is a study of matrices, linear equations, dot products, cross products, geometrical vectors, determinants, n-dimensional space, and linear transformation.

**MATHEMATICS (MTH) 225**

**CALCULUS II (4 LEC.)**

Prerequisite: Mathematics 124 or the equivalent. This course is a study of techniques of integration, polar coordinates, parametric equations, topics in vector calculus, sequences, series, indeterminate forms, and partial differentiation with applications.

**MATHEMATICS (MTH) 226**

**CALCULUS III (3 LEC.)**

Prerequisite: Mathematics 225 or the equivalent. This course is a study of topics in vector calculus, functions of several variables, and multiple integrals, with applications.

**MATHEMATICS (MTH) 230**

**DIFFERENTIAL EQUATIONS (3 LEC.)**

Prerequisite: Mathematics 225 or the consent of the instructor. This course is a study of ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, boundary value problems, and applications.

**MUSIC (MUS) 101**

**FRESHMAN THEORY (3 LEC., 3 LAB.)**

Musicianship skills are developed. Emphasis is on tonal and rhythmic perception and articulation. The essential elements of music are presented, and sight-singing, keyboard, and notation are introduced.
MUSIC (MUS) 102 (4)
FRESHMAN THEORY (3 LEC., 3 LAB.)
Prerequisite: Music 101 or the consent of the instructor. This course introduces part-writing and harmonization with triads and their inversions. Also included are the classification of chords, seventh chords, sight-singing, dictation, and keyboard harmony.

MUSIC (MUS) 103 (1)
GUITAR ENSEMBLE (3 LAB.)
Music composed and arranged for a guitar ensemble is performed. Works for a guitar and a different instrument or for guitar and a voice are also included. This course may be repeated for credit.

MUSIC (MUS) 104 (3)
MUSIC APPRECIATION (3 LEC.)
The basic elements of music are surveyed and examined in the music literature of western civilization, particularly from the Baroque Period to the present. Cultural influences on the music of each era are observed.

MUSIC (MUS) 105 (1)
ITALIAN DICTION (2 LAB.)
The phonetic sounds of the Italian language are studied. Included is selected vocabulary. This course is primarily for voice majors.

MUSIC (MUS) 106 (1)
FRENCH DICTION (2 LAB.)
The phonetic sounds of the French language are studied. Included is selected vocabulary. This course is primarily for voice majors.

MUSIC (MUS) 107 (1)
GERMAN DICTION (2 LAB.)
The phonetic sounds of the German language are studied. Included is selected vocabulary. This course is primarily for voice majors.

MUSIC (MUS) 108 (1)
ENGLISH DICTION (2 LAB.)
The phonetic sounds of the English language are studied. Included is selected vocabulary. This course is primarily for voice majors.

MUSIC (MUS) 110 (3)
MUSIC LITERATURE (3 LEC.)
The music of recognized composers in the major periods of music history is examined. Topics include the characteristics of sound, elements of music, performance media, and musical texture. Emphasis is on the music of the late Gothic, Renaissance and Baroque eras.

MUSIC (MUS) 111 (3)
MUSIC LITERATURE (3 LEC.)
Prerequisite: Music 110. This course is a continuation of Music 110. The compositional procedures and forms used by composers are studied. Emphasis is on the Classical, Romantic, and Modern periods.

MUSIC (MUS) 112 (3)
GUITAR LITERATURE AND MATERIALS (3 LEC.)
The body of music for the guitar is surveyed. Emphasis is on the repertoire of instruments in the guitar family, such as the lute. Transcription and arranging are studied as well as the selection of a program for public performance.

MUSIC (MUS) 113 (3)
FOUNDATIONS OF MUSIC (3 LEC.)
This course focuses on participation and skills for satisfactory performance in singing, playing an instrument, listening, and creating rhythmic responses. The ability to manage notation (music reading) is developed.

MUSIC (MUS) 114 (3)
FOUNDATIONS IN MUSIC II (3 LEC.)
Prerequisite: Music 113. This course prepares students with limited music training for Music 101 and increases their general music understanding. Emphasis is on rhythmic and melodic training, chord functions, melody, textures, and basic analysis of music.

MUSIC (MUS) 115 (2)
JAZZ IMPROVISATION (1 LEC., 2 LAB.)
The art of improvisation is introduced. Basic materials, aural training, analysis, and common styles are presented. This course may be repeated for credit.

MUSIC (MUS) 117 (1)
Piano Class I (2 LAB.)
This course is primarily for students with no knowledge of piano skills. It develops basic musicianship and piano skills. This course may be repeated for credit.

MUSIC (MUS) 118 (1)
Piano Class II (2 LAB.)
The study of piano is continued. Included are techniques, skills, harmonization, transposition, improvisation, accompanying, sight-reading, and performing various styles of repertoire. This course may be repeated for credit.

MUSIC (MUS) 119 (1)
Guitar Class I (2 LAB.)
This course is primarily for students with limited knowledge in reading music or playing the guitar. It develops basic guitar skills. This course may be repeated for credit.

MUSIC (MUS) 120 (1)
Guitar Class II (2 LAB.)
Prerequisite: Music 119 or the equivalent. This course is a continuation of Music 119. Emphasis is on classical guitar techniques and music reading skills. This course may be repeated for credit.

MUSIC (MUS) 121-143 (1)
APPLIED MUSIC-MINOR (1 LEC.)
This course is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the student's secondary area and consists of a one-half hour lesson a week. Fee required. Private music may be repeated for credit.

MUSIC (MUS) 151 (1)
VOICE CLASS I (2 LAB.)
This course is for non-voice majors. It presents the principles of breathing, voice production, tone control, and other aspects of vocal technique. Emphasis is on excellence of performance. Membership is open to any student by audition. This course may be repeated for credit.

MUSIC (MUS) 152 (1)
VOICE CLASS II (2 LAB.)
This course is for non-voice majors. However, it is open to all non-voice majors. Emphasis is on solo singing, appearance in studio recital, stage deportment, and personality development. Two group lessons are given a week. This course may be repeated for credit.

MUSIC (MUS) 155 (1)
VOCAL ENSEMBLE (3 LAB.)
A group of mixed voices concentrates on excellence of performance. Membership is open to any student by audition. The director selects those who possess special interest and skill in the performance of advanced choral literature. This course may be repeated for credit.

MUSIC (MUS) 160 (1)
BAND (3 LAB.)
Prerequisite: The consent of the instructor is required for non-wind instrument majors. The band studies and performs a wide variety of music in all areas of band literature. This course may be repeated for credit.
MUSIC (MUS) 170 (1) ORCHESTRA (3 LAB.)
Experience is provided in performing and reading orchestral literature and in participating in the college orchestra. This course may be repeated for credit.

MUSIC (MUS) 171 (1) WOODWIND ENSEMBLE (3 LAB.)
A group of woodwind instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 172 (1) BRASS ENSEMBLE (3 LAB.)
A group of brass instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 173 (1) PERCUSSION ENSEMBLE (3 LAB.)
A group of percussion instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 174 (1) KEYBOARD ENSEMBLE (3 LAB.)
A group of keyboard instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 175 (1) STRING ENSEMBLE (3 LAB.)
A group of string instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 176 (1) SYMPHONIC WIND ENSEMBLE (3 LAB.)
In the symphonic wind ensemble students study and perform stylistic literature of all periods. This course may be repeated for credit.

MUSIC (MUS) 177 (1) CHAMBER ENSEMBLE (3 LAB.)
A group of chamber instrumentalists or vocalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 181 (1) LAB BAND (3 LAB.)
Prerequisite: The consent of the instructor. In the Lab Band students study and perform all forms of commercial music, such as jazz, pop, avant-garde, and soul. Student arranging, composing, and conducting is encouraged. This course may be repeated for credit.

MUSIC (MUS) 185 (1) STAGE BAND (3 LAB.)
Prerequisite: The consent of the instructor. In the Stage Band students study and perform a wide variety of music. Emphasis is on the jazz-oriented, big-band styles of the 1960's. This may be repeated for credit.

MUSIC (MUS) 199 (1) RECITAL (2 LAB.)
Students of private lessons perform before an audience one period each week. Credit for this course does not apply to the Associate Degree. This course may be repeated for credit.

MUSIC (MUS) 201 (4) SOPHOMORE THEORY (3 LEC., 3 LAB.)
Prerequisite: Music 101 and 102 or the consent of the instructor. This course is a continuation of the study of theory. Topics include larger forms, thematic development, chromatic chords such as the Neapolitan sixth and augmented sixth chords, and diatonic seventh chords. Advanced sight-singing, keyboard harmony, and ear training are also included.

MUSIC (MUS) 202 (4) SOPHOMORE THEORY (3 LEC., 3 LAB.)
Prerequisite: Music 201 or the equivalent or the consent of the instructor. This course is a continuation of Music 201. Topics include the sonata-allegro form and the ninth, eleventh, and thirteenth chords. New key schemes, impressionism, melody, harmony, tonality and formal processes of 20th century music are also included. Sight-singing, keyboard harmony, and ear training are developed further.

MUSIC (MUS) 203 (3) COMPOSITION (3 LEC.)
Prerequisite: Music 101 and 102 or the consent of the instructor. This course covers composing in small forms for simple media in both traditional styles and styles of the student's choice. The course may be repeated for credit.

MUSIC (MUS) 204 (2) GUITAR PEDAGOGY (2 LEC.)
Guitar method books are surveyed. Emphasis is on the strengths and weaknesses of each method. Structuring lessons and optimizing each individual teacher-student relationship are also discussed.

MUSIC (MUS) 221-243 (2) APPLIED MUSIC-CONCENTRATION (1 LEC.)
This course is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the area of the student's concentration and consists of two half-hour lessons a week. Fee required. Private music may be repeated for credit.

MUSIC (MUS) 251-270 (3) APPLIED MUSIC-MAJOR (1 LEC.)
This course is primarily for music performance majors and is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the area of the student's major instrument, and consists of two half-hour lessons a week. Fee required.

OFFICE CAREERS (OFC) 143 (1) CONTEMPORARY TOPICS IN OFFICE CAREERS (1 LEC.)
Prerequisite: The consent of the instructor. This course emphasizes current topics of interest in office career fields. Realistic solutions to problems relevant to the needs of industry are presented. This course may be repeated for credit with different emphasis up to six hours.

OFFICE CAREERS (OFC) 159 (4) BEGINNING SHORTHAND (3 LEC., 2 LAB.)
Prerequisites: Credit or concurrent enrollment in Office Careers 172 or one year of typing in high school. The principles of Gregg Shorthand are introduced. Included is the development of the ability to read, write, and transcribe shorthand outlines. Knowledge of the mechanics of English is also developed. Laboratory fee.

OFFICE CAREERS (OFC) 160 (3) OFFICE CALCULATING MACHINES (3 LEC.)
This course focuses on the development of skills in using electronic calculators. Emphasis is on developing the touch system for both speed and accuracy. Business math and fundamentals are reviewed.

OFFICE CAREERS (OFC) 162 (3) OFFICE PROCEDURES (3 LEC.)
Prerequisite: Office Careers 172 or one year of typing in high school. The duties, responsibilities, and personal qualifications of the office worker are emphasized. Topics include filing, reprographics, mail, telephone, financial transactions, and job applications.

OFFICE CAREERS (OFC) 165 (3) INTRODUCTION TO WORD PROCESSING (3 LEC.)
Prerequisite: Office Careers 174 or concurrent enrollment in Office Careers 174. This course introduces word processing and describes its effect on traditional office operations.
OFFICE CAREERS (OFC) 166 (4) INTERMEDIATE SHORTHAND (3 LEC., 2 LAB.)
Prerequisites: Office Careers 159 or one year of shorthand in high school, Office Careers 172 or one year of typ ing in high school. The principles of Gregg Shorthand are studied. Emphasis is on increased speed dicta tion, accuracy in typing from shorthand notes, and beginning techniques of transcription skills. Also included are oral reading, speed building, and grammar. Laboratory fee.

OFFICE CAREERS (OFC) 172 (3) BEGINNING TYPEWRITING (2 LEC., 3 LAB.)
This course is for students with no previous training in typewriting. Fundamental techniques in typewriting are developed. The skills of typing manuscripts, business letters, and tabulations are introduced. Laboratory fee.

OFFICE CAREERS (OFC) 173 (3) INTERMEDIATE TYPING (2 LEC., 3 LAB.)
Prerequisites: Office Careers 172 or one year of typing in high school. Typing techniques are developed further. Emphasis is on problem solving. Increasing speed and accuracy in typing business forms, correspondence, and manuscripts are also covered. Laboratory fee.

OFFICE CAREERS (OFC) 231 (3) BUSINESS COMMUNICATIONS (3 LEC.)
Prerequisites: Credit in Office Careers 172 or one year of typing in high school; credit in Communications 131 or English 101. This practical course includes a study of letter forms, the mechanics of writing and the composition of various types of communications. A critical analysis of the appearance and content of representative business correspondence is made.

OFFICE CAREERS (OFC) 265 (3) WORD PROCESSING PRACTICES AND PROCEDURES (3 LEC.)
Prerequisite: Office Careers 165. This course concerns translating ideas into words, putting those words on paper, and turning that paper into communication. Emphasis is on training in composing and dictating business communications. Teamwork skills, priorities, scheduling, and procedures are included. Researching, storing and retrieving documents, and managing word processing systems are also covered. Transcribing and magnetic keyboarding skills are developed. Typing skills and English mechanics are reinforced.

OFFICE CAREERS (OFC) 266 (4) ADVANCED SHORTHAND (3 LEC., 2 LAB.)
Prerequisites: Office Careers 166 or two years of shorthand in high school, Office Careers 174 or two years of typing in high school. Emphasis is on building dictation speed. Producing maillsable, typed transcriptions under timed conditions is also stressed. Vocabulary and extensive production work capabilities are developed. Laboratory fee.

OFFICE CAREERS (OFC) 273 (2) ADVANCED TYPING APPLICATIONS (1 LEC., 2 LAB.)
Decision-making and production of all types of business materials under time conditions are emphasized. A continuation of skill development and a review of typing techniques are also stressed. Accuracy at advanced speeds is demanded. Laboratory fee.

PHILOSOPHY (PHI) 102 (3) INTRODUCTION TO PHILOSOPHY (3 LEC.)
The fundamental problems in philosophy are surveyed. Methods to deal with the problems are discussed. Ancient and modern views are examined as possible solutions.

PHILOSOPHY (PHI) 105 (3) LOGIC (3 LEC.)
The principles of logical thinking are analyzed. The methods and tools of logic are applied to real-life situations. Fallacies, definitions, analogies, syllogisms, Venn diagrams, and other topics are discussed.

PHILOSOPHY (PHI) 202 (3) INTRODUCTION TO SOCIAL AND POLITICAL PHILOSOPHY (3 LEC.)
The relationships of philosophical ideas to the community are presented.

PHILOSOPHY (PHI) 203 (3) ETHICS (3 LEC.)
The classical and modern theories of the moral nature of the human are surveyed. Alternative views of responsibilities to self and society are posed. Ethical issues and their meta-physical and epistemological bases are vivified. Emphasis is on applying ethical principles in life.

PHILOSOPHY (PHI) 207 (3) HISTORY OF MODERN PHILOSOPHY (3 LEC.)
The history of philosophy from pre-Socratic times to the Renaissance is examined. Connections are made between the pre-Socratics, Plato, and Aristotle. Stoicism, Epicureanism, and Scholasticism are considered.

PHILOSOPHY (PHI) 208 (3) STUDIES IN PHILOSOPHY (3 LEC.)
Prerequisite: 3 hours of philosophy and the consent of the instructor. A philosophical problem or movement, or special topic is studied. The course topic changes each semester. This course may be repeated for credit.

PHOTOGRAPHY (PHO) 110 (3) INTRODUCTION TO PHOTOGRAPHY AND PHOTO-JOURNALISM (2 LEC., 4 LAB.)
Photography and photo-journalism are introduced. Topics include the general mechanics of camera lenses and shutters and the general characteristics of photographic films, papers, and chemicals. Darkroom procedures are presented, including enlarging, processing, contact printing, and exposing film and paper. Artificial lighting is studied. Laboratory fee.

PHOTOGRAPHY (PHO) 111 (3) ADVANCED PHOTOGRAPHY AND PHOTO-JOURNALISM (2 LEC., 4 LAB.)
Techniques learned in Photography 110 are refined. Emphasis is on photographic communication. Laboratory fee.
PHOTOGRAPHY (PHO) 120 (4)
COMMERCIAL PHOTOGRAPHY I (3 LEC., 3 LAB.)
Commercial or contract photography is studied. Field, studio, and darkroom experience for various kinds of photography is discussed. Included are social photography, portrait and studio photography, fashion and theatrical portfolio, publicity photography, and convention photography. The use of natural, stationary, flash, and strobe artificial lights is covered. Laboratory fee.

PHOTOGRAPHY (PHO) 121 (4)
COMMERCIAL PHOTOGRAPHY II (3 LEC., 3 LAB.)
This course is a continuation of Photography 120. Publicity photography, architectural photography, interior photography, and advertising photography are included. The latest equipment, papers, films, and techniques are explored. Exchanges are made with sample clients, employers, studios, and agencies. Laboratory fee.

PHOTOGRAPHY (PHO) 207 (3)
PHOTOGRAPHY FOR PUBLICATIONS (2 LEC., 4 LAB.)
This course is designed for the student who is interested in journalistic editing, publications photography, and graphic arts procedures. It encourages skills in all three areas and prepares the student for a broad job market that includes photojournalism, printing, editing, composing, and general copy preparation. Students who enroll in this course should have a background in journalism, photography, and graphic arts and be of sophomore standing. Laboratory fee.

PHYSICAL EDUCATION ACTIVITY COURSES

The Physical Education Division provides opportunity for each student to become skilled in at least one physical activity for personal enjoyment of leisure time. Activity courses are open to both men and women. A laboratory fee is required. Students are urged to take advantage of the program by registering for a physical education activity course each semester.

PHYSICAL EDUCATION (PEH) 100 (1)
LIFETIME SPORTS ACTIVITIES (3 LAB.)
Various lifetime sports are offered. Courses offered may include archery, badminton, bowling, golf, handball, racquetball, softball, swimming, tennis, and other sports. Activities may be offered singularly or in combinations. Instruction is presented at the beginner and advanced-beginner levels. Both men and women participate. This course may be repeated for credit when students select different activities. Laboratory fee.

PHYSICAL EDUCATION (PEH) 101 (3)
FUNDAMENTALS OF HEALTH (3 LEC.)
This course is for students majoring or minoring in physical education or having other specific interest. Personal health and community health are studied. Emphasis is on the causes of mental and physical health and disease transmission and prevention.

PHYSICAL EDUCATION (PEH) 109 (3)
OUTDOOR RECREATION (3 LEC.)
Outdoor recreation and organized camping are studied. Both the development of these activities and present trends are covered.

PHYSICAL EDUCATION (PEH) 112 (1)
BEGINNING SOFTBALL AND SOCCER (3 LAB.)
Basic softball and soccer skills, rules and strategies are taught. Class tournaments are conducted. 24 class hours are devoted to each activity. Laboratory fee.

PHYSICAL EDUCATION (PEH) 113 (1)
BEGINNING HANDBALL AND RACQUETBALL (3 LAB.)
Basic handball and racquetball skills, rules and strategies are taught and class tournaments are conducted. 24 class hours are devoted to each activity. Laboratory fee.

PHYSICAL EDUCATION (PEH) 114 (1)
BEGINNING BADMINTON (3 LAB.)
The history, rules, and skills of badminton are taught. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 115 (1)
PHYSICAL FITNESS (3 LAB.)
The student's physical condition is assessed. A program of exercise for life is prescribed. Much of the course work is carried on in the physical performance laboratory. A uniform is required. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH) 116 (1)
INTRAMURAL ATHLETICS (3 LAB.)
Intramural competition in a variety of activities is offered for men and women. A uniform is required. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH) 117 (1)
BEGINNING ARCHERY (3 LAB.)
Basic skills, rules and strategies of archery are taught. Equipment is furnished. Laboratory fee.

PHYSICAL EDUCATION (PEH) 118 (1)
BEGINNING GOLF (3 LAB.)
Basic skills, rules and strategies of golf are taught. Equipment is furnished. Laboratory fee.

PHYSICAL EDUCATION (PEH) 119 (1)
BEGINNING TENNIS (3 LAB.)
This course is designed for the beginner. Tennis fundamentals are taught and played. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 120 (1)
BEGINNING BOWLING (3 LAB.)
Basic skills, rules and strategy of bowling are taught. All equipment is furnished at an off campus bowling lane. Laboratory fee.

PHYSICAL EDUCATION (PEH) 122 (1)
BEGINNING GYMNASTICS (3 LAB.)
Beginning gymnastics is offered. Emphasis is on basic skills in tumbling and in the various apparatus events. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 123 (1)
BEGINNING SWIMMING (2 LAB.)
This course teaches a non-swimmer to survive in the water. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 124 (1)
SOCIAL DANCE (3 LAB.)
This course is for students who have limited experience in dance. Ballroom and social dancing are offered. Included are fundamental steps and rhythms of the fox-trot, waltz, tango, and recent dances. "Country" dancing includes the reel, square dance, and other dances. Laboratory fee.

PHYSICAL EDUCATION (PEH) 126 (1)
AEROBIC DANCE (3 LAB.)
This is a dance class which rhythmically combines dance movement with walking, jogging, and jumping to cause sustained vigorous combination of steps, geared to raise the heart rate to a proper target zone for conditioning purposes. Each routine can be "danced" at different intensities, depending on the physical condition of each participant. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 127 (1)
BEGINNING BASKETBALL AND VOLLEYBALL (3 LAB.)
Basic basketball and volleyball rules, skills and strategies are taught and class tournaments are conducted. Sections using men's rules and women's rules may be offered separately. 24 class hours will be devoted to each sport. Laboratory fee.
PHYSICAL EDUCATION (PEH) 134 (1)
SOCIAL AND FOLK DANCE (3 LAB.)
Social and folk dance is introduced. Laboratory fee.

PHYSICAL EDUCATION (PEH) 129 (1)
MODERN DANCE (3 LAB.)
This beginning course is designed to emphasize basic dance technique, including body alignment and placement, floor work, locomotor patterns, and creative movements. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 130 (1)
BEGINNING TUMBLING AND TRAMPOLINE (3 LAB.)
Basic skills and techniques involved in tumbling and trampolining are taught. 24 class hours will be devoted to each activity. Laboratory fee.

PHYSICAL EDUCATION (PEH) 131 (1)
WEIGHT TRAINING AND CONDITIONING (3 LAB.)
Instruction and training in weight training and conditioning techniques are offered. A uniform is required. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH) 132 (1)
SELF-DEFENSE (3 LAB.)
Various forms of self-defense are introduced. The history and philosophy of the martial arts are explored. The student should progress from no previous experience in self-defense to an adequate skill level covering basic self-defense situations. Both mental and physical aspects of the arts are stressed.

PHYSICAL EDUCATION (PEH) 134 (1)
OUTDOOR EDUCATION (3 LAB.)
Knowledge and skills in outdoor education and camping are presented. Planned and incidental experiences take place, including a week-end camp-out. Laboratory fee.

PHYSICAL EDUCATION (PEH) 144 (3)
INTRODUCTION TO PHYSICAL EDUCATION (3 LEC.)
This course is for students majoring in physical education and is designed for professional orientation in physical education, health, and recreation. The history, philosophy, and modern trends of physical education are surveyed. Topics include teacher qualifications, vocational opportunities, expected competencies, and skill testing.

PHYSICAL EDUCATION (PEH) 147 (3)
SPORTS OFFICIATING I (2 LEC., 2 LAB.)
This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are football, basketball, and other sports as appropriate. Students are expected to officiate intramural games.

PHYSICAL EDUCATION (PEH) 148 (3)
SPORTS OFFICIATING II (2 LEC., 2 LAB.)
This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are softball, track and field, baseball, and other sports as appropriate. Students are expected to officiate intramural games.

PHYSICAL EDUCATION (PEH) 200 (1)
LIFETIME SPORTS ACTIVITIES II (3 LAB.)
This course is a continuation of Physical Education 100. Students participate in selected activities. Instruction is at the intermediate and intermediate/advanced levels. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH) 217 (1)
INTERMEDIATE ARCHERY (3 LAB.)
This course is for the student who has previous experience in archery. Target shooting and field archery are emphasized. The student must furnish equipment. Laboratory fee.

PHYSICAL EDUCATION (PEH) 218 (1)
INTERMEDIATE GOLF (2 LEC.)
Prerequisite: The consent of the instructor. Skills and techniques in golf are developed beyond the "beginner" stage. Green fee paid by student. Laboratory fee.

PHYSICAL EDUCATION (PEH) 219 (1)
INTERMEDIATE TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 222 (1)
INTERMEDIATE GYMNASTICS (3 LAB.)
Prerequisite: Physical Education 122. Skills and techniques in gymnastics are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 223 (1)
INTERMEDIATE SELF DEFENSE (3 LAB.)
Prerequisite: Physical Education 132 or the consent of the instructor. Students will be introduced to intermediate forms of defense and combination of self defense methods. Emphasis is on practical application of self defense movements. Laboratory fee.

PHYSICAL EDUCATION (PEH) 226 (1)
ADVANCED LIFE SAVING (2 LEC.)
Prerequisite: Physical Education 223 or deep water swim ability. This course qualifies students for the Red Cross Advanced Lifesaving Certificate. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 227 (1)
INTERMEDIATE SELF DEFENSE (3 LAB.)
Prerequisite: Physical Education 132 or the consent of the instructor. Students will be introduced to intermediate forms of defense and combination of self defense methods. Emphasis is on practical application of self defense movements. Laboratory fee.

PHYSICAL EDUCATION (PEH) 233 (1)
JOGGING FOR FITNESS (3 LAB.)
Development and improvement of physical fitness through jogging is emphasized. Fitness concepts and jogging skills will be introduced. Laboratory fee.

PHYSICAL EDUCATION (PEH) 234 (2)
WATER SAFETY INSTRUCTOR (1 LEC., 2 LAB.)
Prerequisite: Current Advanced Life Saving card. The principles and techniques for instructors in water safety and life saving classes are covered. Completion of the course qualifies the student to test for certification by the Red Cross as a water safety instructor. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 257 (3)
ADVANCED FIRST AID AND EMERGENCY CARE (3 LEC.)
The Advanced First Aid and Emergency Care course of the American Red Cross is taught, presenting both theory and practice. Various aspects of safety education also are included.

PHYSICAL SCIENCE (PSC) 118 (4)
PHYSICAL SCIENCE (3 LEC., 3 LAB.)
This course includes the use of equipment, safety, physiology, and open water diving. All equipment is supplied except mask, fins, and snorkel. The student may rent needed equipment at the time of registration. Students completing course requirements receive certification as basic scuba divers from the Professional Association of Diving Instructors (PADI). The National Association of Underwater Instructors (NAUI). Laboratory fee.

PHYSICAL EDUCATION (PEH) 226 (1)
ADVANCED LIFE SAVING (2 LEC.)
Prerequisite: Physical Education 223 or deep water swim ability. This course qualifies students for the Red Cross Advanced Lifesaving Certificate. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 227 (1)
INTERMEDIATE SELF DEFENSE (3 LAB.)
Prerequisite: Physical Education 132 or the consent of the instructor. Students will be introduced to intermediate forms of defense and combination of self defense methods. Emphasis is on practical application of self defense movements. Laboratory fee.

PHYSICAL EDUCATION (PEH) 228 (1)
INTERMEDIATE TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in golf are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 229 (1)
INTERMEDIATE STATIONERY TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 230 (1)
INTERMEDIATE TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 231 (1)
INTERMEDIATE TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 232 (1)
INTERMEDIATE TENNIS (3 LAB.)
Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 233 (1)
JOGGING FOR FITNESS (3 LAB.)
Development and improvement of physical fitness through jogging is emphasized. Fitness concepts and jogging skills will be introduced. Laboratory fee.

PHYSICAL EDUCATION (PEH) 234 (2)
WATER SAFETY INSTRUCTOR (1 LEC., 2 LAB.)
Prerequisite: Current Advanced Life Saving card. The principles and techniques for instructors in water safety and life saving classes are covered. Completion of the course qualifies the student to test for certification by the Red Cross as a water safety instructor. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 257 (3)
ADVANCED FIRST AID AND EMERGENCY CARE (3 LEC.)
The Advanced First Aid and Emergency Care course of the American Red Cross is taught, presenting both theory and practice. Various aspects of safety education also are included.
PHYSICS (PHY) 100 (4)
INTRODUCTORY PHOTOGRAPHIC SCIENCE (3 LEC., 3 LAB.)
Prerequisites: Photography 110, Art 113, or the consent of the instructor, and access to a camera with variable speed and aperture. This course introduces the physical and chemical principles which form the basis for photographic technology. Topics covered include the production of light, its measurement and control, principles of optics and the formation of images, the basic chemistry of black and white and color processes, film structure and characteristics, filter characteristics, lasers, and holography. Laboratory fee.

PHYSICS (PHY) 111 (4)
INTRODUCTORY GENERAL PHYSICS (3 LEC., 3 LAB.)
Prerequisite: Two years of high school algebra, including trigonometry, or the equivalent. This course is for pre-denial, biology, pre-medical, pre-pharmacy, and pre-architecture majors and other students who need a two-semester technical course in physics. Mechanics and heat are studied. Laboratory fee.

PHYSICS (PHY) 112 (4)
INTRODUCTORY GENERAL PHYSICS (3 LEC., 3 LAB.)
Prerequisite: Physics 111. This course is a continuation of Physics 111. Electricity, magnetism, light, and sound are studied. Laboratory fee.

PHYSICS (PHY) 117 (4)
CONCEPTS IN PHYSICS (3 LEC., 3 LAB.)
This course is for non-science majors. It introduces principles of physics and does not require a mathematical background. Emphasis is on classical mechanics and thermodynamics. Historical developments and their impact on daily life are included. The principle of energy conservation is stressed, and current problems of world-wide energy production are examined. Laboratory fee.

PHYSICS (PHY) 118 (4)
CONCEPTS IN PHYSICS (3 LEC., 3 LAB.)
This course is for non-science majors. It introduces principles of physics and does not require a mathematical background. Emphasis is on modern developments in physics. Topics include acoustics, electricity and magnetism, light and the electromagnetic spectrum, atomic physics, and relativity. Laboratory fee.

PHYSICS (PHY) 131 (4)
APPLIED PHYSICS (3 LEC., 3 LAB.)
Prerequisite: Mathematics 195 or concurrent enrollment in Mathematics 195. This course is primarily for students in technical programs. The properties of matter, mechanics, and heat are introduced. Emphasis is on uses and problem-solving. Laboratory fee.

PHYSICS (PHY) 201 (4)
GENERAL PHYSICS (3 LEC., 3 LAB.)
Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is designed primarily for students in the sciences, engineering, and technology. Emphasis is on the principles and applications of mechanics, wave motion, and sound. The laboratory includes a one-hour problem session. Laboratory fee.

PHYSICS (PHY) 202 (4)
GENERAL PHYSICS (3 LEC., 3 LAB.)
Prerequisites: Physics 201 and credit or concurrent enrollment in Mathematics 225. This course presents the principles and applications of heat, electricity, magnetism, and optics. Emphasis is on chemical concepts, problem solving, notation, and units. The laboratory includes a one-hour problem session. Laboratory fee.

PHYSICS (PHY) 203 (4)
INTRODUCTION TO MODERN PHYSICS (3 LEC.)
Prerequisite: Physics 202. The principles of relativity, atomic physics, and nuclear physics are covered. Emphasis is on basic concepts, problem solving, notation, and units. Laboratory fee.

PSYCHOLOGY (PSY) 105 (3)
INTRODUCTION TO PSYCHOLOGY (3 LEC.)
Prerequisites: Psychology 105 and psychology. "behavioral psychology," and "adult development." "behavioral research." Course may be repeated once for credit.

READING (RD) 101 (3)
EFFECTIVE COLLEGE READING (3 LEC.)
Comprehension techniques for reading fiction and non-fiction are presented. Critical reading skills are addressed. Analysis, critique, and evaluation of written material are included. Reading comprehension and flexibility of reading rate are stressed. Advanced learning techniques are developed in listening, note-taking, underlining, concentrating, and reading in specialized academic areas.

READING (RD) 102 (3)
SPEED READING AND LEARNING (3 LEC.)
Reading and learning skills are addressed. Speed reading techniques and comprehension are emphasized.

RELIGION (REL) 101 (3)
RELIGION IN AMERICAN CULTURE (3 LEC.)
This course examines the nature of religion in America. It covers important influences from the past and characteristics of current religious groups and movements. Emphasis is on understanding the role of religion in American life.

RELIGION (REL) 102 (3)
CONTEMPORARY RELIGIOUS PROBLEMS (3 LEC.)
Both classic and recent issues are explored. Such topics as the nature of...
religion, the existence of God, world
religions, mysticism, sexuality and
religion, and the interpretation of death
are included. This course may be
offered with emphasis on a specific
topic, such as death and dying.

RELIGION (REL) 201 (3)
MAJOR WORLD RELIGIONS (3 LEC.)
This course surveys the major world
religions. Hinduism, Buddhism,
Judaism, Islam, and Christianity are
included. The history of religions is
covered, but the major emphasis is on
current beliefs. Other topics may also
be included, such as the nature of
religion, tribal religion, and alternatives
to religion.

SOCIAL SCIENCE (SS) 131 (3)
AMERICAN CIVILIZATION (3 LEC.)
Theories and institutions of modern
society are introduced. Psychological,
historical, sociocultural, political,
and economic factors are considered.
The nature of the human being and the
relationships of the individual are
examined. Emphasis is on the national,
state, and local experiences which
affect daily life.

SOCIAL SCIENCES (SS) 132 (3)
AMERICAN CIVILIZATION (3 LEC.)
Prerequisite: Social Science 131.
Topical studies are made of the
theories and institutions of modern
society. Psychological, historical,
sociocultural, political, and economic
factors are all considered. Emphasis is
on analyzing and applying theory to life
experiences.

SOCIOLOGY (SOC) 101 (3)
INTRODUCTION TO SOCIOLOGY (3 LEC.)
This course is a study of the nature of
society and the foundations of group
life. Topics include institutions, social
change, processes, and problems.

SOCIOLOGY (SOC) 102 (3)
SOCIAL PROBLEMS (3 LEC.)
This course is a study of social prob-
lems which typically include: crime,
poverty, minorities, deviancy, popula-
tion, and health care. Specific topics
may vary from semester to semester
to address contemporary concerns.

SOCIOLOGY (SOC) 103 (3)
HUMAN SEXUALITY (3 LEC.)
Students may register for either
Psychology 103 or Sociology 103 but
receive credit for only one of the two.
Topics include physiological,
psychological, and sociological
aspects of human sexuality.

SOCIOLOGY (SOC) 203 (3)
MARRIAGE AND FAMILY (3 LEC.)
Prerequisite: Sociology 101 recom-
mended. Courtship patterns and
marriage are analyzed. Family forms,
relationships, and functions are
included. Sociocultural differences in
family behavior are also included.

SOCIOLOGY (SOC) 204 (3)
AMERICAN MINORITIES (3 LEC.)
Prerequisite: Sociology 101 or 6 hours
of U.S. history recommended.
Students may register for either
History 204 or Sociology 204 but may
receive credit for only one. The
principal minority groups in American
society are the focus of this course.
The sociological significance and
historic contributions of the groups are
presented. Emphasis is on current
problems, intergroup relations, social
movements, and related social
changes.

SOCIOLOGY (SOC) 205 (3)
INTRODUCTION TO SOCIAL RESEARCH (3 LEC.)
Prerequisite: Sociology 101.
Developmental Mathematics 091, or
the equivalent. Principles and
methods in social research are
presented. Topics include sources of
data, techniques of collection,
analysis, and statistical description.

SOCIOLOGY (SOC) 206 (3)
INTRODUCTION TO SOCIAL WORK (3 LEC.)
The development of the field of
social work is studied. Topics
include the techniques of social work
and the requirements for training in
social work.

SOCIOLOGY (SOC) 207 (3)
SOCIAL PSYCHOLOGY (3 LEC.)
Students may register for either
Psychology 207 or Sociology 207 but
may receive credit for one. Theories of
individual behavior in the social
environment are surveyed. Topics
include the socio-psychological
process, attitude formation and
change, interpersonal relations, and
group processes.

SOCIOLOGY (SOC) 209 (3)
SELECTED TOPICS (3 LEC.)
Prerequisite: Sociology 101 or the
consent of the instructor. This is an
elective course designed to deal with
specific topics in sociology. Examples
of topics might be: "urban sociology,"
"women in society," or "living with
divorce." As the topics change, this
course may be repeated once for
credit.

SOCIOLOGY (SOC) 210 (3)
FIELD STUDIES IN AMERICAN MINORITIES (3 LEC.)
Prerequisite: Sociology 101 or
Sociology 204. Experience is provided
in Indian, Black, and Mexican-
American community centers. Work is
under professional supervision in a
task-oriented setting.

SOCIOLOGY (SOC) 231 (3)
URBAN SOCIAL PROBLEMS (3 LEC.)
The sociology of social institutions is
studied. Topics include urbanization,
theories of formation, and the impact
of urbanization on the individual.

SPANISH (SPA) 101 (4)
BEGINNING SPANISH (3 LEC., 2 LAB.)
The essentials of grammar and easy
idiomatic prose are studied. Emphasis
is on pronunciation, comprehension,
and oral expression. Laboratory fee.

SPANISH (SPA) 102 (4)
BEGINNING SPANISH (3 LEC., 2 LAB.)
Prerequisite: Spanish 101 or the
equivalent. This course is a
continuation of Spanish 101. Emphasis
is on idiomatic language and
complicated syntax. Laboratory fee.

SPANISH (SPA) 201 (3)
INTERMEDIATE SPANISH (3 LEC.)
Prerequisite: Spanish 102 or the
equivalent. This course is a
continuation of Spanish 201.
Contemporary literature and
composition are studied.

SPEECH (SPE) 100 (1)
SPEECH LABORATORY (3 LAB.)
This course focuses on preparing
speeches, reading dialogue from
literature, and debating propositions.
Presentation are made throughout
the community. This course may be
repeated for credit each semester.

SPEECH (SPE) 105 (3)
FUNDAMENTALS OF PUBLIC SPEAKING (3 LEC.)
Public speaking is introduced. Topics
include the principles of reasoning,
audience analysis, collection of
materials, and outlining. Emphasis is
on giving well prepared speeches.

SPEECH (SPE) 109 (3)
VOICE AND ARTICULATION (3 LEC.)
Students may register for either
Speech 109 or Theatre 109 but may
receive credit for only one of the two.
The mechanics of speech are studied.
Emphasis is on improving voice and
pronunciation.

SPEECH (SPE) 208 (3)
ORAL INTERPRETATION (3 LEC.)
Techniques of analyzing various types
of literature are examined. Practice is
provided in preparing and presenting
selections orally. Emphasis is on
individual improvement.

THEATRE (THE) 100 (1)
REHEARSAL AND PERFORMANCE (4 LAB.)
Prerequisite: To enroll in this course, a
student must be accepted as a
member of the cast or crew of a major
production. Participation in the class
will include the rehearsal and pre-
formance of the current theatrical presentation of the division. This course may be repeated for credit.

THEATRE (THE) 101  (3)
INTRODUCTION TO THE THEATRE (3 LEC.)
The various aspects of theatre are surveyed. Topics include plays, playwrights, directing, acting, and technicians.

THEATRE (THE) 102  (3)
CONTEMPORARY THEATRE (3 LEC.)
This course is a study of the modern theatre and cinema as art forms. The historical background and traditions of each form are included. Emphasis is on understanding the social, cultural, and aesthetic significance of each form. A number of modern plays are read, and selected films are viewed.

THEATRE (THE) 103  (3)
STAGECRAFT I (2 LEC., 3 LAB.)
The technical aspects of play production are studied. Topics include set design and construction, stage lighting, make-up, costuming, and related areas.

THEATRE (THE) 104  (3)
STAGECRAFT II (2 LEC., 3 LAB.)
Prerequisite: Theatre 103 or the consent of the instructor. This course is a continuation of Theatre 103. Emphasis is on individual projects in set and lighting design and construction. The technical aspects of play production are explored further.

THEATRE (THE) 105  (3)
MAKE-UP FOR THE STAGE (2 LEC.)
The craft of make-up is explored. Both theory and practice are included. Laboratory fee.

THEATRE (THE) 106  (3)
ACTING I (2 LEC., 3 LAB.)
The theory of acting and various exercises are presented. Body control, voice, pantomime, interpretation, characterization, and stage movement are included. Both individual and group activities are used. Specific roles are analyzed and studied for stage presentation.

THEATRE (THE) 107  (3)
ACTING II (2 LEC., 3 LAB.)
Prerequisite: Theatre 106 or the consent of the instructor. This course is a continuation of Theatre 106. Emphasis is on complex characterization, ensemble acting, stylized acting, and acting in period plays.

THEATRE (THE) 108  (3)
MOVEMENT FOR THE STAGE (2 LEC., 3 LAB.)
Movement is studied as both a pure form and as a part of the theatre arts. It is also presented as a technique to control balance, rhythm, strength, and flexibility. Movement in all the theatrical forms and in the development of characterization is explored. This course may be repeated for credit.

THEATRE (THE) 109  (3)
VOICE AND ARTICULATION (3 LEC.)
Students may register for either Speech 109 or Theatre 109 but may receive credit for only one of the two. Emphasis is on improving voice and pronunciation.

THEATRE (THE) 110  (3)
HISTORY OF THEATRE I (3 LEC.)
This course surveys the development of the theatre of the 16th century. It is studied in each period as a part of the total culture of the period.

THEATRE (THE) 119  (1)
DEMONSTRATION LAB (1 LAB.)
This course provides practice before a live audience of theory learned in theatre classes. Scenes studied in various drama classes are used to show contrast and different perspectives. This course may be repeated for credit.

THEATRE (THE) 205  (3)
SCENE STUDY I (2 LEC., 3 LAB.)
Prerequisite: Theatre 106 and 107. This course is a continuation of Theatre 107. Emphasis is on developing dramatic action through detailed study of the script. Students deal with stylistic problems presented by the staging of period plays and the development of realism. Rehearsals are used to prepare for scene work.

THEATRE (THE) 207  (3)
SCENE STUDY II (2 LEC., 3 LAB.)
Prerequisite: Theatre 205. This course is a continuation of Theatre 205. Emphasis is on individual needs of the performer. Rehearsals are used to prepare for scene work.

THEATRE (THE) 208  (3)
INTRODUCTION TO TECHNICAL DRAWING (2 LEC., 3 LAB.)
Basic techniques of drafting are studied. Isometrics, orthographic projections, and other standard procedures are included. Emphasis is on theatrical drafting, including groundplans, vertical sections, construction elevations, and spider perspective.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 141  (4)
BEGINNING SIGN LANGUAGE (3 LEC., 2 LAB.)
Sign language and fingerspelling are introduced. Practice and experience in developing expressive and receptive skills are provided. Emphasis is on mastering expressive skills. Laboratory fee.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 142  (3)
COMMUNICATION THEORY (3 LEC.)
Basic communication methods used by the deaf are explored. Emphasis is on the interrelationship of all language methods and the concept of total communication, including theories, ideas, methods of language, communication, and English. (This course is not a sign language course.)

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 143  (4)
INTERMEDIATE SIGN LANGUAGE (3 LEC., 2 LAB.)
Prerequisite: Training Paraprofessionals for the Deaf 141. Receptive and expressive fingerspelling skills are increased. Basic vocabulary is expanded, and idioms are introduced. Emphasis is on mastering receptive skills. Laboratory fee.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 144  (3)
PSYCHOSOCIAL ASPECTS OF DEAFNESS (3 LEC.)
This course focuses on exploration of the psychosocial aspects of deafness. Vocational problems are also explored and studied.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 147  (3)
LANGUAGE DEVELOPMENT OF THE DEAF (3 LEC.)
The language development of deaf persons is studied. The period from infancy to adulthood is included. The importance of family, community, and school relationships is stressed. Various methods and materials used in developing language are presented. An overview of learning theory and normal language acquisition is also included.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 148  (1)
RECEPTIVE FINGERSPELLING (2 LAB.)
Prerequisites: Training Paraprofessionals for the Deaf 141 or concurrent enrollment in Training Paraprofessionals for the Deaf 141. This course increases the student's ability to read fingerspelling. Video tapes are used to demonstrate fingerspelling — starting with two-letter words and progress-
ing to words of several syllables. These words are presented individually as well as in sentences.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 149 (4)**  
**MANAGEMENT SKILLS FOR THE INTERPRETER/AIDE (3 LEC., 3 LAB.)**

This course will emphasize management of the classroom through techniques of behavior modifications and training in interpersonal relationships. It will include defining the role of the teacher aide and the teacher interpreter. An overview of all types of media will be presented with emphasis on specialized classroom use of media for the deaf. The course will also cover the uses of auditory equipment with the deaf and training in techniques of using hearing aids and materials to enable the deaf to respond meaningfully to their environments.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 230 (4)**  
**INTERPRETING: ETHICS AND SPECIFICS (3 LEC., 2 LAB.)**

Prerequisite: Training Paraprofessionals for the Deaf 143 or the consent of the instructor. This course focuses on interpreter protocol, i.e., manner of dress, code of ethics, language level. The student will learn about the preparation and training to become an interpreter for the deaf in different settings. Examples of these settings are legal, religious, vocational, medical, educational, counseling and rehabilitation.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 240 (4)**  
**ADVANCED SIGN LANGUAGE (3 LEC., 2 LAB.)**

Prerequisite: Training Paraprofessionals for the Deaf 143. Students will study linguistic aspects of American Sign Language and will apply this knowledge by translating written English selections into ASL. Students will receive practice in the expressive and receptive modes of both sign language and fingerspelling. Emphasis will be on mastery of ASL. Laboratory fee.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 248 (3)**  
**REHABILITATION OF THE MULTIPLE HANDICAPPED DEAF (3 LEC., 1 LAB.)**

Other handicapping conditions accompanying deafness are studied. The emphasis is on problems of development and education and on severity of vocational problems when deafness is one of the handicaps. Techniques of management and instruction are included. Instructional personnel will include guest professionals from areas of all handicaps.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 249 (3)**  
**INTERPRETING: SIGN TO VOICE (3 LEC.)**

Prerequisite: Training Paraprofessionals for the Deaf 240. This course is designed for the advanced sign language student. Reverse skills are developed and practiced through the use of video tapes (ranging from manual English to American Sign Language and live subjects).

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 250 (3)**  
**EDUCATIONAL SPECIALIZED SIGNS (3 LEC., 2 LAB.)**

Prerequisites: Training Paraprofessionals for the Deaf 141, 142, 143 and 240. This course provides students with knowledge of specialized signs, particularly educational signs. Other contents covered are medical, sexual, legal, drug related and religious. Additional content areas are explored as needed. Laboratory fee.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 251 (3)**  
**INTERPRETING: VOICE TO SIGN (3 LEC., 2 LAB.)**

Prerequisite: Training Paraprofessionals for the Deaf 240. Students will acquire theoretical information pertaining to the expressive aspects of interpreting. Students will interpret in class by using audio tapes and live speakers. Each student's vocabulary/sign choice and performance will be analyzed and recommendations made of improvement of delivery. Laboratory fee.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 801 (3)**  
**SPECIAL PROBLEMS IN DEAFNESS (3 LEC.)**

Prerequisite: The consent of the instructor. Various topics are studied as demand warrants. Examples include residential care, introduction to rehabilitation, and the deaf/blind. This course may be repeated for credit when topics vary.

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 802 (2)**  
**COOPERATIVE WORK EXPERIENCE**

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 803, 813 (3)**  
**COOPERATIVE WORK EXPERIENCE**

**TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 804 (4)**  
**COOPERATIVE WORK EXPERIENCE**

**TRANSPORTATION TECHNOLOGY (TRT) 144 (3)**  
**INTRODUCTION TO TRANSPORTATION (3 LEC.)**

This course is an overview of specialized fields within the transportation industry. The role of transportation in modern society is identified. Other topics include community needs, the philosophy of transportation, and the future of transportation.

**TRANSPORTATION TECHNOLOGY (TRT) 145 (3)**  
**INTRODUCTION TO RATES AND TARIFFS (3 LEC.)**

Special emphasis is placed on present-day transportation modes, carrier pricing systems documentation, and federal and state regulation policies.

**TRANSPORTATION TECHNOLOGY (TRT) 146 (3)**  
**TRANSPORTATION AND TRAFFIC MANAGEMENT (3 LEC.)**

This course is for students majoring in transportation technology. It emphasizes current transportation methods. Included are carrier services, carrier pricing systems, documentation, carrier liability, claims import and export procedures, and governmental regulations. The course is designed to prepare students to take the certification examinations of the American Society of Traffic and Transportation.

**TRANSPORTATION TECHNOLOGY (TRT) 147 (3)**  
**ECONOMICS OF TRANSPORTATION (3 LEC.)**

Prerequisite: Transportation Technology 146. The economic significance of transportation is studied. Topics include the rationale of pricing, the economics of regulation, subsidies and coordination, and interagency control. This course is designed to prepare students to take the certification examinations of the American Society of Traffic and Transportation.

**TRANSPORTATION TECHNOLOGY (TRT) 148 (3)**  
**GOVERNMENT POLICIES IN TRANSPORTATION (3 LEC.)**

Federal, state, and local government roles and policies in transportation are explored. Included are policy making, subsidy, taxation, and controls.

**TRANSPORTATION TECHNOLOGY (TRT) 240 (3)**  
**INTERSTATE COMMERCE LAW (3 LEC.)**

Prerequisite: Transportation Technology 147. Principles of transportation regulation are studied. Topics include the framework of regulation, regulatory acts, and administrative agencies. The regulatory policies of the Interstate...
physical distribution and the market are studied. Topics include market environment, distribution channels and systems, cost planning and analysis, financial control, and system design.

TRANSPORTATION TECHNOLOGY (TRT) 241 (3)

INTERSTATE COMMERCE LAW I (3 LEC.)

Prerequisite: Transportation Technology 240. Rules and regulations covering the practice and procedure of federal agencies are studied. The agencies include the Interstate Commerce Commission, the Civil Aeronautics Board, and the Federal Maritime Administration. Pleadings, rules of evidence, rules of ethics, and judicial review are covered. This course is designed to prepare students to take the certifying examinations of the American Society of Traffic and Transportation and the Interstate Commerce Commission.

TRANSPORTATION TECHNOLOGY (TRT) 249 (3)

APPLIED RATES AND TARIFFS (3 LEC.)

Prerequisite: Transportation Technology 145. This course is an analytical study of transportation pricing structures. Special emphasis is given to the methodology for construction of carrier tariffs, the development of freight rates, and special services provided by carriers. This course is designed to develop skills leading to certification examinations of The American Society of Traffic and Transportation.

TRANSPORTATION TECHNOLOGY (TRT) 258 (3)

STUDIES IN TRANSPORTATION TECHNOLOGY (1 LEC.)

This course provides the student an opportunity to explore selected topics in the field of transportation. The course may be repeated with a different emphasis for a maximum of nine hours of credit.

TRANSPORTATION TECHNOLOGY (TRT) 273 (3)

PHYSICAL DISTRIBUTION MANAGEMENT I (3 LEC.)

The management and organization of physical distribution are studied. Emphasis is on decision-making in inventory control, warehousing, packaging, and material handling. The analysis of location and international distribution and transport systems are also covered.

TRANSPORTATION TECHNOLOGY (TRT) 288 (3)

PHYSICAL DISTRIBUTION MANAGEMENT II (3 LEC.)

Relationships in the management of

VOCATIONAL NURSING (VN) 153 (8)

MATERNAL CHILD HEALTH (7 LEC., 3 LAB.)

Prerequisite: Completion of Vocational Nursing 144, 145, 146 and all support courses with grade of "C" or better. This course focuses on the theory, principles and nursing skills related to meeting the basic needs of maternity, newborn, and pediatric patients. Laboratory fee.

VOCATIONAL NURSING (VN) 154 (7)

MATERNAL CHILD HEALTH CLINICAL (28 LAB.)

Prerequisites: Completion of Vocational Nursing 144, 145, 146 and all support courses with grade of "C" or better. Must be concurrently enrolled in Vocational Nursing 147. This course provides clinical experiences focusing on normal prenatal, labor and delivery, post partum, and newborn nursing care situations. Students also have the opportunity to apply the nursing process to the care of pediatric patients with acute and chronic problems. Laboratory fee.

VOCATIONAL NURSING (VN) 155 (10)

NURSING PROCESS II (8 LEC., 4 LAB.)

Prerequisites: Completion of Vocational Nursing 147, 148 with grade of "C" or better. This course focuses on the nursing care of patients with various medical, surgical or emotional problems. Drug and diet therapy and clinical skills used in caring for acutely or chronically ill patients are included. The topic of professional and vocational adjustment to the employee role is included. Laboratory fee.

WELDING (WE) 101 (3)

BASIC WELDING AND CUTTING PRACTICES (1 LEC., 5 LAB.)

This course is for students who need welding on the job, such as in auto body, auto mechanics, or air conditioning. Emphasis is on setting up and using oxyfuel equipment. Cutting up to and including 3/8" mild steel, welding up to and including 5/8" mild steel, and brazing up to and including 16 ga. mild steel are all included. Setting up and using arc welding equipment are also included. Welding 1/4" through 5/8" mild steel in the flat and vertical position using E60's series electrodes is covered. Laboratory fee.

WELDING (WE) 111 (2)

OXYFUEL (80 CONTACT HOURS)

This course gives both theory and practice in basic tools, equipment and processes used in welding and brazing gauge materials. Lab work
includes preparation and performance of welded and brazed joints. Laboratory fee.

WELDING (WE) 112  (2)  OXYFUEL II (60 CONTACT HOURS)
Prerequisite: Welding 111. This course gives both theory and practice in the basic tools, equipment and procedures used in layout, cutting, shaping, forming and the heat treating of metals. Lab work includes the selection and use of fuel gases for heat treating and the set-up and usage of semi-automatic and manual cutting equipment. Laboratory fee.

WELDING (WE) 113  (2)  SHIELDED METAL ARC WELDING I (60 CONTACT HOURS)
This course gives both theory and practice in the identification and usage of shielded metal arc welding electrodes. Laboratory work includes the use of E60 and E70 series including low hydrogen electrodes primarily in the flat and horizontal position. Laboratory fee.

WELDING (WE) 114  (2)  SHIELDED METAL ARC WELDING II (60 CONTACT HOURS)
Prerequisite: Welding 113. This course includes both theory and laboratory work, emphasizing the production and properties of mild steel alloys. Arc welding equipment set-up and operation are also included. Laboratory work will include the use of E60 and E70 series electrodes primarily in the vertical and overhead position. Laboratory fee.

WELDING (WE) 115  (4)  SHIELDED METAL ARC WELDING III (120 CONTACT HOURS)
Prerequisite: Welding 114. This course gives both the theory and practice in code quality welding. Laboratory work includes passing standard test according to the American Welding Society and American Society of Mechanical Engineers for certifying procedures for 316” - 34” thickness range material in all positions. Laboratory fee.

WELDING (WE) 116  (4)  SHIELDED METAL ARC WELDING IV (120 CONTACT HOURS)
Prerequisite: Welding 115. This course is designed to introduce the basis of shielded metal arc welding of pipe. Lab work includes welding 3” through 10” schedule 40 mild steel pipe. The vertical, horizontal rolled and fixed using E60 and E70 series electrodes are included. Laboratory fee.

WELDING (WE) 117  (3)  GENERAL METAL LAYOUT (90 CONTACT HOURS)
Prerequisite: Drafting 182 or equivalent. This course gives both theory and practice in blueprint reading, welding symbols, layout work and fabrication techniques of metal weldments. Lab work consists of developing shop drawings and fabrication of designed structures. Laboratory fee.

WELDING (WE) 118  (4)  WELDING INSPECTION AND QUALITY CONTROL (120 CONTACT HOURS)
Prerequisites: Welding 117 and six credit hours of welding lab courses or equivalent. This course is both a theory and practical application of welding codes, processes, testing procedures, testing equipment and weld discontinuities. Lab work emphasis is on inspection and qualification of welds and welding procedures.

WELDING (WE) 211  (2)  GAS TUNGSTEN ARC WELDING I (60 CONTACT HOURS)
This course gives both theory and practice in the set-up and use of gas-tungsten arc welding of plate. Laboratory work will include setting up and using 16 gauge through 38” thick mild steel, stainless and aluminum. Welds will be made primarily in the flat and horizontal positions. Laboratory fee.

WELDING (WE) 212  (2)  GAS TUNGSTEN ARC WELDING II (60 CONTACT HOURS)
Prerequisite: Welding 211 or equivalent. This course gives both theory and practice in the set-up and use of gas tungsten arc welding of pipe. Lab work includes the welding of thin wall tubing and schedule 40 pipe. Welding is primarily in the vertical, horizontal rolled and horizontal fixed positions. Laboratory fee.

WELDING (WE) 213  (4)  GAS TUNGSTEN ARC WELDING III (120 CONTACT HOURS)
Prerequisite: Welding 212 or equivalent. This is an advanced theory and skills course in the use of gas tungsten arc welding of plate and pipe. Lab work will include passing the standard qualification test in a variety of metals in all positions. Laboratory fee.

WELDING (WE) 214  (2)  GAS METAL ARC WELDING I (50 CONTACT HOURS)
This course gives both theory and practice in the set-up and use of gas metal arc welding processes of plate. Lab work will be on setting up and using gas metal arc welding equipment in welding 18 guage 38” thick mild steel, stainless and aluminum, primarily in the flat and horizontal position. Laboratory fee.

WELDING (WE) 215  (2)  GAS METAL ARC WELDING II (60 CONTACT HOURS)
Prerequisite: Welding 214. This course gives both theory and practice in the set-up and use of gas metal arc welding processes of pipe. Lab work includes the welding of schedule 40 mild steel pipe in the vertical, horizontal rolled and fixed positions. Laboratory fee.

WELDING (WE) 216  (4)  GAS METAL ARC WELDING III (120 CONTACT HOURS)
Prerequisite: Welding 215. This is an advanced theory and skills course in the use of gas metal arc welding of plate and pipe. Lab work will be on passing the standard qualification test in plate and pipe on plate and pipe in a variety of metals and thickness ranges in all positions. Laboratory fee.

WELDING (WE) 217  (3)  BASIC WELDING METALLURGY (90 CONTACT HOURS)
This is a theory type course designed to assist those students in welding and related industries to refresh and extend their knowledge of the behavior of the various fabricating metals during welding. The effects of the joining processes and procedures on the fabrication and service performance of weldments are also considered. Laboratory fee.

WELDING (WE) 218  (3)  APPLIED WELDING METALLURGY (90 CONTACT HOURS)
Prerequisite: Welding 217 and six credit hours of welding lab courses. This course is designed to assist the student in improving communication skills with welding engineers and metallurgists. The course includes a study of welding processes and their relationship to and effect upon metals and why they can or cannot be used for certain applications; the theory of heat treating and its many uses; the value of preheat, interpass temperature, and post-heat in welding procedures. This course should increase the students knowledge of what metals are made of and why they are used for specific industrial applications; to strengthen the knowledge and understanding of the grain structure of metals and the effect that welding processes have on them. Laboratory fee.
WELDING (WE) 219 (3)
WELDING DESIGN (60 CONTACT HOURS)
Prerequisites: Welding 117, and six credit hours of welding lab courses or equivalent. Concepts in designing products for welding, joint design and selection, weld size determination, welding costs, codes and applications in welding. A design project is chosen and carried to completion using the design team concept. Laboratory fee.

WELDING (WE) 220 (2)
SPECIAL WELDING APPLICATION I (60 CONTACT HOURS)
This is an advanced skills development course designed to allow the student to program his own specialization area course objectives under instructional supervision. This will allow a student to upgrade his present skills development level in order to meet employment reclassification requirements of a selected potential employer. This course is open only to those students in advanced standing or who are presently employed and in need of additional skill development. This course may be repeated for credit. Laboratory fee.

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**RECIPROCAL TUITION AGREEMENT**

**DCCCD PROGRAMS**
The following programs offered by Dallas County Community College District may be taken by Tarrant County residents at in-county tuition rates:

<table>
<thead>
<tr>
<th>Program</th>
<th>Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Art</td>
<td>BHC</td>
</tr>
<tr>
<td>Animal Medical Technology</td>
<td>CVC</td>
</tr>
<tr>
<td>Apparel Design</td>
<td>ECC</td>
</tr>
<tr>
<td>Aviation Technology</td>
<td>MVC</td>
</tr>
<tr>
<td>Air Cargo</td>
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<tr>
<td>Air Traffic Control</td>
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<tr>
<td>Aircraft Dispatcher</td>
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<tr>
<td>Airline Marketing</td>
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<tr>
<td>Career Pilot</td>
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<td>Fixed Base Operations</td>
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</tr>
<tr>
<td>Avionics</td>
<td>MVC</td>
</tr>
<tr>
<td>Automotive Parts</td>
<td>BHC</td>
</tr>
<tr>
<td>Automotive Machinist</td>
<td>BHC</td>
</tr>
<tr>
<td>Building Trades</td>
<td>NLC</td>
</tr>
<tr>
<td>Carpentry</td>
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</tr>
<tr>
<td>Electrical</td>
<td></td>
</tr>
<tr>
<td>Commercial Design &amp; Advertising</td>
<td>CVC</td>
</tr>
<tr>
<td>Commercial Music</td>
<td>CVC</td>
</tr>
<tr>
<td>Construction Management</td>
<td>RLC</td>
</tr>
<tr>
<td>Diesel Mechanics</td>
<td>NLC</td>
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<tr>
<td>Distribution Technology</td>
<td>NLC</td>
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<tr>
<td>Engineering Technology</td>
<td>RLC</td>
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<tr>
<td>Food Service Operations</td>
<td>ECC</td>
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<tr>
<td>Graphic Communications</td>
<td>EFC</td>
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<tr>
<td>Horology</td>
<td>MVC</td>
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<tr>
<td>Hotel/Motel Operations</td>
<td>ECC</td>
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<tr>
<td>Human Services</td>
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<td>Interior Design</td>
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<td>Motorcycle Mechanics</td>
<td>CVC</td>
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<tr>
<td>Optical Technology</td>
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<tr>
<td>Outboard Marine</td>
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<tr>
<td>Engine Mechanics</td>
<td>CVC</td>
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<tr>
<td>Pattern Design</td>
<td>ECC</td>
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<tr>
<td>Purchasing Management</td>
<td>EFC, NLC</td>
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<tr>
<td>Retail Management</td>
<td>BHC, CVC</td>
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<tr>
<td>Solar Energy Technology</td>
<td>NLC</td>
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<tr>
<td>Vocational Nursing</td>
<td>ECC</td>
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</table>

**TCJC PROGRAMS**
The following programs offered by Tarrant County Junior College may be taken by Dallas County residents at in-county tuition rates:

<table>
<thead>
<tr>
<th>Program</th>
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<tbody>
<tr>
<td>Agribusiness</td>
<td>NW</td>
</tr>
<tr>
<td>Cast Metals Technology</td>
<td>NE</td>
</tr>
<tr>
<td>Civil/Construction Technology</td>
<td>NE</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>NE</td>
</tr>
<tr>
<td>Emergency Medical Technology</td>
<td>NE</td>
</tr>
<tr>
<td>Industrial Supervision</td>
<td>S</td>
</tr>
<tr>
<td>Long Term</td>
<td></td>
</tr>
<tr>
<td>Health Care Administration</td>
<td>NE</td>
</tr>
<tr>
<td>Media Technology</td>
<td>NE</td>
</tr>
<tr>
<td>Medical Records Technology</td>
<td>NE</td>
</tr>
<tr>
<td>Nondestructive</td>
<td></td>
</tr>
<tr>
<td>Evaluation Technology</td>
<td>S</td>
</tr>
<tr>
<td>Physical Therapist Assistant</td>
<td>NE</td>
</tr>
<tr>
<td>Property Tax Appraisal</td>
<td>NE</td>
</tr>
<tr>
<td>Radio-TV Repair</td>
<td>S</td>
</tr>
</tbody>
</table>

*NE — Northeast Campus, NW — Northwest Campus, S — South Campus.*
Technical/Occupational Programs
ACCOUNTING ASSOCIATE

(Associate Degree)

The Accounting Associate two-year program is designed to prepare a student for a career as a junior accountant in business, industry and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles.

The Associate in Applied Arts and Sciences Degree is awarded for successful completion of at least 63 credit hours as outlined below. Students desiring a less comprehensive program that emphasizes bookkeeping procedures and practices should consider the General Office Certificate with elective emphasis on accounting careers. The General Office Certificate is available in the Office Careers Program.

<table>
<thead>
<tr>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>SEMESTER I</td>
</tr>
<tr>
<td>ACC 201 Principles of Accounting I</td>
</tr>
<tr>
<td>BUS 105 Introduction to Business</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech or*</td>
</tr>
<tr>
<td>ENG 101 Composition and Expository Reading</td>
</tr>
<tr>
<td>MTH 130 Business Mathematics or</td>
</tr>
<tr>
<td>MTH 111 Mathematics for Business and Economics</td>
</tr>
<tr>
<td>OFC 160 Office Calculating Machines</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER II</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 202 Principles of Accounting II</td>
</tr>
<tr>
<td>COM 132 Applied Composition and Speech or*</td>
</tr>
<tr>
<td>ENG 102 Composition and Literature</td>
</tr>
<tr>
<td>CS 175 Introduction to Computer Science</td>
</tr>
<tr>
<td>MGT 136 Principles of Management</td>
</tr>
<tr>
<td>OFC 172 Beginning Typing</td>
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<table>
<thead>
<tr>
<th>SEMESTER III</th>
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<tbody>
<tr>
<td>ACC 203 Intermediate Accounting I</td>
</tr>
<tr>
<td>ACC 204 Managerial Accounting</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
</tr>
<tr>
<td>GVT 201 American Government</td>
</tr>
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<td><strong>15-18</strong></td>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 238 Cost Accounting or</td>
</tr>
<tr>
<td>ACC 239 Income Tax Accounting</td>
</tr>
<tr>
<td>BUS 234 Business Law</td>
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<tr>
<td>ECO 202 Principles of Economics II</td>
</tr>
<tr>
<td>OFC 231 Business Communications</td>
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<tr>
<td><strong>15-18</strong></td>
</tr>
</tbody>
</table>

† Electives — A minimum of 9 credit hours must be selected from the following:

| ACC 205 Business Finance | 3 |
| ACC 207 Intermediate Accounting II | 3 |
| ACC 238 Cost Accounting | 3 |
| ACC 239 Income Tax Accounting | 3 |
| ACC 703-713 Cooperative Work Experience | 3 |
| ACC 704-714 Cooperative Work Experience | 4 |
| BUS 143 Personal Finance | 3 |
| BUS 237 Organizational Behavior | 3 |
| CS 250 Contemporary Topics in Computer Science | 3 |
| CS 251 Special Topics in Computer Science and Data Processing | 4 |
| MGT 206 Principles of Marketing | 3 |
| PSY 105 Introduction to Psychology or | 3 |
| PSY 131 Human Relations | 3 |
| SPE 105 Fundamentals of Public Speaking | 3 |
| Any CS or DP Programming course | |

‡ Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives listed for this program.

* ENG 101 and ENG 102 may be substituted for COM 131 and COM 132 provided that SPE 105 is also taken.

Minimum Hours Required: 63
AIR CONDITIONING AND REFRIGERATION TECHNOLOGY
(Associate Degree)
This program furnishes both the theory and practice required to qualify a person for employment in the various areas of the air conditioning and refrigeration industry.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 111</td>
<td>Principles of Refrigeration 3</td>
</tr>
<tr>
<td>ACR 113</td>
<td>Fundamentals of Electricity 3</td>
</tr>
<tr>
<td>ACR 115</td>
<td>Unit Air Conditioning Systems 3</td>
</tr>
<tr>
<td>ACR 117</td>
<td>Domestic Refrigeration 3</td>
</tr>
<tr>
<td>COM 131</td>
<td>Applied Composition and Speech or ENG 101 Composition and Expository Reading 3</td>
</tr>
<tr>
<td>DFT 182</td>
<td>Technician Drafting 2</td>
</tr>
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<table>
<thead>
<tr>
<th>SEMESTER II</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 112</td>
<td>Properties of Air 3</td>
</tr>
<tr>
<td>ACR 114</td>
<td>Heat Load Analysis 3</td>
</tr>
<tr>
<td>ACR 116</td>
<td>Summer Air Conditioning Systems 3</td>
</tr>
<tr>
<td>ACR 118</td>
<td>Winter Air Conditioning Systems 3</td>
</tr>
<tr>
<td>HST 101</td>
<td>History of the United States or PSY 131 Human Relations 3</td>
</tr>
<tr>
<td>MTH 195</td>
<td>Technical Mathematics 3</td>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER III</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 221</td>
<td>Refrigeration Loads 3</td>
</tr>
<tr>
<td>ACR 223</td>
<td>Medium Temperature Refrigeration Systems 3</td>
</tr>
<tr>
<td>ACR 227</td>
<td>Low Temperature Refrigeration Systems 3</td>
</tr>
<tr>
<td>ACR 229</td>
<td>Refrigeration Equipment Selection 3</td>
</tr>
<tr>
<td>ACC 131</td>
<td>Bookkeeping I 3</td>
</tr>
<tr>
<td>COM 132</td>
<td>Applied Composition and Speech or ENG 102 Composition and Literature 3</td>
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<table>
<thead>
<tr>
<th>SEMESTER IV</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>ACR 222</td>
<td>Advanced Systems 3</td>
</tr>
<tr>
<td>ACR 224</td>
<td>System Testing and Balancing 3</td>
</tr>
<tr>
<td>ACR 228</td>
<td>Air Conditioning System Equipment Selection 3</td>
</tr>
<tr>
<td>ACR 230</td>
<td>Energy Conservation 3</td>
</tr>
<tr>
<td>ACR 803</td>
<td>Cooperative Work Experience 3</td>
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</table>

Minimum Hours Required: 68

AIR CONDITIONING AND REFRIGERATION TECHNOLOGY
(Certificate)
This program will qualify the student to install, repair, and maintain equipment in the fields of domestic refrigeration, commercial refrigeration, and air conditioning, cooling or heating systems.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
</tr>
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<tbody>
<tr>
<td>ACR 111</td>
<td>Principles of Refrigeration 3</td>
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<tr>
<td>ACR 113</td>
<td>Fundamentals of Electricity 3</td>
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<tr>
<td>ACR 115</td>
<td>Unit Air Conditioning Systems 3</td>
</tr>
<tr>
<td>ACR 117</td>
<td>Domestic Refrigeration 3</td>
</tr>
<tr>
<td>MTH 195</td>
<td>Technical Mathematics 3</td>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER II</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ACR 112</td>
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<td>Heat Load Analysis 3</td>
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<tr>
<td>ACR 116</td>
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<td>ACR 118</td>
<td>Winter Air Conditioning Systems 3</td>
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<table>
<thead>
<tr>
<th>SEMESTER III</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>ACR 221</td>
<td>Refrigeration Loads 3</td>
</tr>
<tr>
<td>ACR 223</td>
<td>Medium Temperature Refrigeration Systems 3</td>
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<tr>
<td>ACR 229</td>
<td>Refrigeration Equipment Selection 3</td>
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<tr>
<td>ACR 803</td>
<td>Cooperative Work Experience 3</td>
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</tbody>
</table>

Minimum Hours Required: 42

Minimum Hours Required: 68
AUTO BODY TECHNOLOGY
(Associate Degree)
This program introduces the student to all facets of auto body repair and painting. Emphasis is placed upon the development of the necessary skills and knowledge required to function successfully in this industry. The program of study includes technical aspects of metal behavior combined with correct repair and refinishing procedures.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB 111 Basic Metal Principles*</td>
<td>3</td>
</tr>
<tr>
<td>AB 112 Applied Basic Metal Principles*</td>
<td>2</td>
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<tr>
<td>AB 121 Basic Paint Principles*</td>
<td>3</td>
</tr>
<tr>
<td>AB 122 Applied Basic Paint Principles*</td>
<td>2</td>
</tr>
<tr>
<td>AB 245 Welding for Auto Body or WE 101</td>
<td>3</td>
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<tr>
<td>MTH 195 Technical Mathematics</td>
<td>3</td>
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<thead>
<tr>
<th>SEMESTER II</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB 113 Minor Metal Repair*</td>
<td>3</td>
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<tr>
<td>AB 114 Applied Minor Metal Repair*</td>
<td>2</td>
</tr>
<tr>
<td>AB 123 Paint Blending and Spot Repair Techniques*</td>
<td>3</td>
</tr>
<tr>
<td>AB 124 Applied Paint Blending and Spot Repair Techniques*</td>
<td>2</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
<td>3</td>
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<tr>
<td>PHY 131 Applied Physics</td>
<td>4</td>
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<thead>
<tr>
<th>SEMESTER III</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>AB 211 Major Panel Replacement*</td>
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<tr>
<td>AB 212 Applied Major Panel Replacement*</td>
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<tr>
<td>AB 213 Major Collision and Frame Repair</td>
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<tr>
<td>PSY 131 Human Relations</td>
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<tr>
<th>SEMESTER IV</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>AB 139 Body Shop Operations</td>
<td>3</td>
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<tr>
<td>AB 221 Advanced Paint Techniques*</td>
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<tr>
<td>AB 222 Applied Advanced Paint Techniques*</td>
<td>2</td>
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<tr>
<td>AB 235 Estimating</td>
<td>3</td>
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Minimum Hours Required: 62

† Electives — Must be selected from the following:

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<th>Credit Hours</th>
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<tbody>
<tr>
<td>AT 118 Electrical Systems</td>
</tr>
<tr>
<td>AT 221 Heating and Air Conditioning</td>
</tr>
<tr>
<td>AT 225 Front End</td>
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</tbody>
</table>

AUTO BODY TECHNOLOGY
(Certificate)
This program is designed to train a student in all facets of auto body and repair and painting. Emphasis is placed upon those skills needed to train the student to become a successful auto body repair person. This program offers the student a certificate in Auto Body Technology upon successful completion of the program.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
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</thead>
<tbody>
<tr>
<td>AB 111 Basic Metal Principles*</td>
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<tr>
<td>AB 122 Applied Basic Paint Principles*</td>
<td>2</td>
</tr>
<tr>
<td>AB 245 Welding for Auto Body or WE 101</td>
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<tr>
<td>MTH 195 Technical Mathematics</td>
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<tbody>
<tr>
<td>AB 211 Major Panel Replacement*</td>
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<tr>
<td>AB 212 Applied Major Panel Replacement*</td>
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<tr>
<td>AB 213 Major Collision and Frame Repair</td>
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<tr>
<td>AB 139 Body Shop Operations</td>
<td>3</td>
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<tr>
<td>AB 221 Advanced Paint Techniques*</td>
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<tr>
<td>AB 222 Applied Advanced Paint Techniques*</td>
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<tr>
<td>AB 235 Estimating</td>
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<tr>
<td>AB 803 Cooperative Work Experience or AB 804 Cooperative Work Experience</td>
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Minimum Hours Required: 45

*Must be enrolled in concurrently (at the same time): AB 111/112, AB 113/114, AB 121/122, AB 123/124, AB 211/212, AB 221/222

† Electives — Must be selected from the following:

<table>
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<tr>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>AT 118 Electrical Systems</td>
</tr>
<tr>
<td>AT 221 Heating and Air Conditioning</td>
</tr>
<tr>
<td>AT 225 Front End</td>
</tr>
</tbody>
</table>

*Must be enrolled in concurrently (at the same time): AB 111/112, AB 113/114, AB 121/122, AB 123/124, AB 211/212, AB 221/222
The purpose of this program is to prepare students for entry level employment as an automotive technician. This program of study will include theory, diagnosis, repair, overhaul and maintenance of automobiles. Emphasis is placed on operational theory, practical skills and accepted shop procedures.

### SEMESTER I
- **AT 108** Minor Vehicle Services 4
- **AT 110** Engine Repair I 4
- **AT 112** Engine Repair II 4
- **COM 131** Applied Composition and Speech I 3
- **MTH 195** Technical Mathematics 3

### SEMESTER II
- **AT 114** Engine Analysis and Tune-Up 4
- **AT 116** Fuel and Emission Systems 4
- **AT 118** Electrical Systems 4
- **PHY 131** Applied Physics 4

### SEMESTER III
- **AT 221** Heating and Air Conditioning 4
- **AT 223** Brake Systems 4
- **AT 225** Front End Systems 4
- **Elective** 3-4

### SEMESTER IV
- **AT 227** Standard Transmissions and Drive Trains 4
- **AT 229** Automatic Transmissions I 4
- **AT 231** Automatic Transmissions II 4
- **AT 703** Cooperative Work Experience or 3
- **AT 714** Cooperative Work Experience 3

Minimum Hours Required: 67

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<th>SEMESTER III</th>
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<td>AT 114 Engine Analysis and Tune-Up 4</td>
<td>AT 221 Heating and Air Conditioning 4</td>
<td>AT 227 Standard Transmissions and Drive Trains 4</td>
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<td>AT 110 Engine Repair I 4</td>
<td>AT 116 Fuel and Emission Systems 4</td>
<td>AT 223 Brake Systems 4</td>
<td>AT 229 Automatic Transmissions I 4</td>
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<td>AT 112 Engine Repair II 4</td>
<td>AT 118 Electrical Systems 4</td>
<td>AT 225 Front End Systems 4</td>
<td>AT 231 Automatic Transmissions II 4</td>
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<td>COM 131 Applied Composition and Speech I 3</td>
<td>PHY 131 Applied Physics 4</td>
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<tr>
<td>-</td>
<td>MTH 195 Technical Mathematics 3</td>
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<td></td>
<td>AT 714 Cooperative Work Experience 3</td>
</tr>
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</table>

Minimum Hours Required: 51

**Elective** — Must be selected from the following:
- **AB 245** Welding for Auto Body 3
- **BUS 105** Introduction to Business 3
- **WE 101** Basic Welding and Cutting Practices 3
- **AT 803** Cooperative Work Experience or 3
- **AT 814** Cooperative Work Experience (4)

**Elective** — Must be selected from the following:
- **GVT 201** American Government 3
- **HD 105** Basic Processes of Interpersonal Relationship 3
- **HUM 101** Introduction to the Humanities 3
- **PSY 131** Human Relations 3

Minimum Hours Required: 18-19
SPECIAL CHILD CERTIFICATE

SEMESTER IV

The program is designed to enable students to provide an optimal learning and caring environment for children. The program offers students an in-depth study of young children from birth to twelve years of age in conjunction with the Parent/Child Center that provides students day-to-day involvement with young children. The Study Center that provides students day-to-day involvement with young children.

### Minimum Hours Required:

- **Certificate**
- **Special Child**

**Semester I**
- CD 135 Introduction to Early Childhood Programs and Services**
- CD 140 Early Childhood Development, 0-3 Years**
- COM 131 Applied Composition and Speech or ENG 101 Composition and Expository Reading
- SOC 101 Introduction to Sociology
- **Elective**

**Credit Hours**: 16-17

**Semester II**
- CD 137 Early Childhood Learning Environments, Activities and Materials**
- CD 141 Early Childhood Development, 3-5 Years**
- CD 812 Cooperative Work Experience or CD 813 Cooperative Work Experience or CD 814 Cooperative Work Experience
- HD 106 Personal and Social Growth or PSY 105 Introduction to Psychology
- **Elective**

**Credit Hours**: 18-20

**Semester III**
- CD 100 Directed Participation in Early Childhood Programs or CD 233 Directed Participation in Early Childhood Programs
- CD 239 Studies in Child Guidance**
- COM 132 Applied Composition and Speech or ENG 102 Composition and Literature
- GVT 201 American Government
- **Elective**

**Credit Hours**: 15-17

**Semester IV**
- CD 150 Nutrition, Health and Safety of the Young Child**
- CD 200 Application of Child Development Learning Theories** or CD 244 Application of Child Development Learning Theories
- HUM 101 Introduction to the Humanities
- SOC 203 Marriage and the Family
- **Electives**

**Credit Hours**: 18-21

**Minimum Hours Required:**

- **Certificate**
- **Special Child**

1 Electives — Must be selected from the following:

- CD 125 Infant and Toddler Learning Environments, Activities, and Materials
- CD 127 Early Childhood Development, 5-12 Years
- CD 203 Parents and the Child Caregiver/Teacher
- CD 209 Early Childhood Development Special Projects
- CD 238 The Special Child: Growth and Development
- CD 238 Introduction to Administration of Child-Care Programs
- CD 246 Advanced Administrative Practices for Child-Care Facilities
- CD 250 Supportive Services for Exceptional Children
- CD 251 Learning Programs for Children with Special Needs
- CD 253 Abuse Within the Family
- CD 812 Cooperative Work Experience or CD 813 Cooperative Work Experience or CD 814 Cooperative Work Experience
- TPD 141 Beginning Sign Language

*CD 100 and CD 200 are taken as one-hour courses concurrently with the six (6) required CD courses (**) and two (2) of the following CD electives: CD 125, CD 127, CD 203, CD 238, or CD 246. CD 100 and CD 200 are repeated for credit for a total of eight (8) hours and are equivalent to CD 233 and CD 244.

**CHILD DEVELOPMENT — SPECIAL CHILD CERTIFICATE**

(Certificate)

This certificate program is planned to emphasize the needs of special children and their families.

**Semester I**
- CD 140 Early Childhood Development, 0-3 Years
- CD 150 Nutrition, Health and Safety of the Young Child
- CD 236 The Special Child: Growth and Development
- CD 239 Studies in Child Guidance
- HD 106 Personal and Social Growth

**Credit Hours**: 15

**Semester II**
- CD 141 Early Childhood Development, 3-5 Years
- CD 250 Supportive Services for Exceptional Children
- CD 251 Learning Programs for Children with Special Needs
- CD 812 Cooperative Work Experience or CD 813 Cooperative Work Experience or CD 814 Cooperative Work Experience
- CD 131 Applied Composition and Speech

**Credit Hours**: 18-21

**Minimum Hours Required:**

- **Certificate**
- **Special Child**

1 Elective — Must be selected from the following:

- CD 125 Infant and Toddler Learning Environments, Activities, and Materials
- CD 127 Early Childhood Development, 5-12 Years
- CD 203 Parents and the Child Caregiver/Teacher
- CD 209 Early Childhood Development Special Projects
- CD 238 The Special Child: Growth and Development
- CD 238 Introduction to Administration of Child-Care Programs
- CD 246 Advanced Administrative Practices for Child-Care Facilities
- CD 250 Supportive Services for Exceptional Children
- CD 251 Learning Programs for Children with Special Needs
- CD 253 Abuse Within the Family
- CD 812 Cooperative Work Experience or CD 813 Cooperative Work Experience or CD 814 Cooperative Work Experience
- TPD 141 Beginning Sign Language

**Credit Hours**: 64
CDA TRAINING CERTIFICATE

(Certificate)

This certificate program provides course work to assist the student to prepare for the CDA (Child Development Associate) assessment process. Students interested in applying for this national credential should consult a Child Development instructor.

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<tr>
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Minimum Hours Required: 37

† Electives — Must be selected from the following:

- CD 125 Infant and Toddler Learning Environments, Activities, and Materials 4
- CD 203 Parents and the Child Caregiver/Teacher 3
- CD 209 Early Childhood Development Special Projects 3
- CD 238 The Special Child: Growth and Development 3
- CD 238 Introduction to Administration of Child-Care Programs 3
- CD 246 Advanced Administrative Practices for Child-Care Facilities 3
- CD 250 Supportive Services for Exceptional Children 3
- CD 251 Learning Programs for Children with Special Needs 4
- CD 253 Abuse Within the Family 3
- TPD 141 Beginning Sign Language 4
DATA PROCESSING PROGRAMMER

(Associate Degree)

This curriculum is intended for the preparation of entry-level or trainee computer programmers who will work in an applications setting to support the general, administrative, and organizational information processing function of industry, commerce, business and government service. It is designed as a two-year career program to prepare students for jobs. Graduates should be able to work in conjunction with a systems analyst in the programming environment usually found in a medium to large job shop. It is intended to provide a sufficient foundation so that graduates with experience and continued learning may advance in career paths appropriate to their own particular interests and abilities.

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<tr>
<td>DP 236</td>
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Minimum Hours Required: 62
DIGITAL ELECTRONICS TECHNOLOGY

(Associate Degree)

This curriculum is designed to prepare a graduate to work as a technician on devices that require digital circuits such as computers, test equipment, automatic control units and central distribution systems. The student will learn schematic interpretation, test equipment usage and technical communications.

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<td>ET 263</td>
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<td>ET 266</td>
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Minimum Hours Required: 64

† Electives — Must be selected from the following:

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<td>Instrumentation</td>
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<tr>
<td>ET 228</td>
<td>Linear Integrated Circuits</td>
<td>4</td>
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<td>ET 268</td>
<td>Advanced Microprocessors</td>
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<td>ET 704</td>
<td>Cooperative Work Experience</td>
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<tr>
<td>ET 713</td>
<td>Cooperative Work Experience</td>
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<td>ET 802</td>
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<td>General Chemistry</td>
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<td>EGR 101</td>
<td>Engineering Analysis</td>
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<td>EGR 186</td>
<td>Manufacturing Processes</td>
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<td>EGR 204</td>
<td>Electrical Systems Analysis</td>
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<tr>
<td>CS 181</td>
<td>Introduction to Fortran Programming</td>
<td>3</td>
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<tr>
<td>PHY 111</td>
<td>Introduction to General Physics</td>
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<td>PHY 131</td>
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* DFT 184, DFT 231, or EGR 105 may be substituted.
** MTH 101 and MTH 104 may be substituted for MTH 195, MTH 105, MTH 121, MTH 124, MTH 225, MTH 226 may be substituted for either MTH 195 or MTH 196.

DRAFTING AND DESIGN TECHNOLOGY — ELECTRONIC DESIGN OPTION

(Associate Degree)

This program prepares the student for employment in a wide range of electronic industries as a drafter or engineering aide. Information in related fields is provided to enable the student to work effectively with the engineer and professional staff. Co-operative work experience can be a learning activity within the program.

<table>
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<td>Drafting Course*</td>
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<td>DFT 246</td>
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Minimum Hours Required: 60

* Drafting courses may be selected from the following:

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<td>DFT 247</td>
<td>Advanced Printed Circuit Design</td>
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<td>DFT 250</td>
<td>Sheet Metal Design</td>
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<tr>
<td>DFT 232</td>
<td>Technical Illustration</td>
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<tr>
<td>DFT 703</td>
<td>Cooperative Work Experience</td>
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<td>DFT 713</td>
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<td>DFT 803</td>
<td>Cooperative Work Experience</td>
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† Technical Electives may be selected from applied science or engineering technologies as approved by the Drafting Department. Suggested are ET 191 or CS 174. (Not more than a total of 12 credit hours to be selected from: DFT 703, 713, 803, 813, 704, 714, 804, 814.)
**DRAFTING AND DESIGN TECHNOLOGY**

*(Associate Degree)*

This program prepares the student for employment in a wide range of industries as a drafter or engineering aide. Information in related fields is provided to enable the student to work effectively with the engineer and professional staff. Enrollment in Drafting Cooperative Work Experience Courses (Co-op) provides on-the-job experience while in the program.

<table>
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<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>SEMESTER I</td>
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<tr>
<td>DFT 183 Basic Drafting                          4</td>
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<tr>
<td>DFT 135 Reproduction Processes                   2</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech or        3</td>
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<tr>
<td>ENG 101 Composition and Expository Reading</td>
</tr>
<tr>
<td>MTH 195 Technical Mathematics or MTH 191 College Algebra</td>
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15

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<td>COM 132 Applied Composition and Speech or         3</td>
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<td>ENG 102 Composition and Literature</td>
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14-15

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</tr>
<tr>
<td>HST 101 History of the United States</td>
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<tr>
<td>HD 105 Basic Processes of Interpersonal Relationships or</td>
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16-17

Minimum Hours Required:

61

*Drafting courses to be selected from the following:

- DFT 136 Geological and Land Drafting
- DFT 184 Intermediate Drafting
- DFT 185 Architectural Drafting
- DFT 230 Structural Drafting
- DFT 231 Electronic Drafting
- DFT 232 Technical Illustration
- DFT 234 Advanced Technical Illustration
- DFT 235 Building Equipment (Mechanical and Electrical)
- DFT 236 Piping and Pressure Vessel Design
- DFT 245 Computer Aided Design
- DFT 246 Advanced CAD - Electronic
- DFT 248 Advanced CAD - Mechanical
- DFT 250 Sheet Metal Design
- DFT 251 Industrial Design

**Drafting Co-op courses to be selected from the following:

- DFT 703 Cooperative Work Experience
- DFT 713 Cooperative Work Experience
- DFT 803 Cooperative Work Experience
- DFT 813 Cooperative Work Experience
- DFT 704 Cooperative Work Experience
- DFT 714 Cooperative Work Experience
- DFT 804 Cooperative Work Experience
- DFT 814 Cooperative Work Experience

†Technical Electives may be selected from Drafting, Applied Science or Engineering Technologies as approved by the Drafting Department.
**GRAPHIC COMMUNICATIONS**  
(Associate Degree)

The student's understanding of graphic processes is developed for employment in a commercial printing firm or a publication facility such as a newspaper or magazine. Students also learn production and management concepts and techniques useful in the field of graphic communications including photography and journalism.

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**SEMESTER II**

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**SEMESTER III**

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<th>Fundamentals of Public Speaking</th>
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Minimum Hours Required: 62

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**GRAPHIC ARTS**  
(Certificate)

This certificate program provides the student with skill development opportunities in the field of Graphic Arts. Successful completion of this certificate program qualifies a person for employment in a commercial printing firm or in the printing division of a large company.

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**SEMESTER III**

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Minimum Hours Required: 30

1Elective — Must be selected from the following:

Minimum Hours Required: 62
### MANAGEMENT CAREERS — MID-MANAGEMENT OPTION

**Associate Degree**

The Mid-Management option is a cooperative plan with members of the business community whereby the student attends college classes in management and relates courses and concurrently works at a regular, paid, part-time or full-time job in a sponsoring business firm. To enter the Mid-Management option, students must make formal application and be interviewed by a member of the Mid-Management faculty before final acceptance will be granted.

<table>
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<td>MGT 154</td>
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<td>BUS 105</td>
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**Minimum Hours Required:**

63

* Electives — May be selected from the following:

- MGT 137 Principles of Retailing 3
- MGT 153 Small Business Management 3
- MGT 212 Special Problems in Business 1
- MGT 220 Salesmanship 3
- MGT 233 Advertising and Sales Promotion 3
- OFC 160 Office Calculating Machines 3
- OFC 172 Beginning Typing 3

**Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.**

**Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.**

### MANAGEMENT CAREERS — ADMINISTRATIVE MANAGEMENT OPTION

**Associate Degree**

The Administrative Management option offers a continuation of the traditional management and business studies. This option is designed for students seeking a detailed examination of management practices, techniques, and theories.

<table>
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<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>TITLE</th>
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**Minimum Hours Required:**

63

* Electives — May be selected from the following:

- MGT 137 Principles of Retailing 3
- MGT 153 Small Business Management 3
- MGT 212 Special Problems in Business 1
- MGT 220 Salesmanship 3
- MGT 233 Advertising and Sales Promotion 3
- OFC 160 Office Calculating Machines 3
- OFC 172 Beginning Typing 3

**Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.**
MANAGEMENT CAREERS — ADMINISTRATIVE MANAGEMENT OPTION

(Associate Degree)

The Administrative Management option offers a continuation of the traditional management and business studies. This option is designed for students seeking a detailed examination of management practices, techniques, and theories.

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<td>MGT 242 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>BUS 237 Organizational Behavior</td>
<td>3</td>
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<tr>
<td>ECO 202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>OFC 231 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Social Science elective or Humanities elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

Minimum Hours Required: 63

† Electives — May be selected from the following:

- MGT 137 Principles of Retailing 3
- MGT 153 Small Business Management 3
- MGT 212 Special Problems in Business 3
- MGT 230 Salesmanship 3
- MGT 233 Advertising and Sales Promotion 3
- OFC 160 Office Calculating Machines 3
- OFC 172 Beginning Typing 3

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

** Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.

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MANAGEMENT CAREERS — PURCHASING MANAGEMENT OPTION

(Associate Degree)

This option is designed to develop the fundamental skills and knowledge which enable individuals to assume technical and decision making positions within the purchasing function of profit and non-profit organizations.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
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</thead>
<tbody>
<tr>
<td>MGT 136 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 160 Principles of Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech*</td>
<td>3</td>
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<tr>
<td>MTH 111 Mathematics for Business and Economics I or MTH 112 Mathematics for Business and Economics II or MTH 130 Business Mathematics</td>
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<table>
<thead>
<tr>
<th>SEMESTER II</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>MGT 220 Materials Management</td>
<td>3</td>
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<tr>
<td>ACC 201 Principles of Accounting I**</td>
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</tr>
<tr>
<td>COM 132 Applied Composition and Speech*</td>
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<tr>
<td>HUM 101 Introduction to the Humanities</td>
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<td>Elective</td>
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<table>
<thead>
<tr>
<th>SEMESTER III</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>MGT 206 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 280 Industrial Management</td>
<td>3</td>
</tr>
<tr>
<td>CS 175 Introduction to Computer Science</td>
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</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
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<tr>
<td>PSY 131 Human Relations</td>
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<thead>
<tr>
<th>SEMESTER IV</th>
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<tbody>
<tr>
<td>MGT 224 Quality Assurance</td>
<td>3</td>
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<tr>
<td>BUS 234 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Economics II</td>
<td>3</td>
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<tr>
<td>Social Science elective or Humanities elective</td>
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</tr>
<tr>
<td>Elective</td>
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</table>

Minimum Hours Required: 60

† Electives — May be selected from the following:

- MGT 230 Salesmanship 3
- MGT 233 Advertising and Sales Promotion 3
- ACC 202 Principles of Accounting II 3
- BUS 237 Organizational Behavior 3
- MTH 202 Introductory Statistics 3
- OFC 231 Business Communications 3
- TRT 287 Physical Distribution Management I 3

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

** Students may substitute ACC 131 and ACC 132 for ACC 201. Only three hours may be applied to the required number of hours for granting the degree.
### OFFICE CAREERS — ADMINISTRATIVE ASSISTANT OPTION

( Associate Degree )

The primary objective of the Administrative Assistant Option to the Office Careers Program is to prepare students for positions as assistants to administrators within public and private firms and agencies. Emphasis in this program is on the development of organizational and management skills in addition to basic office skills.

#### SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OFC 160</td>
<td>Office Calculating Machines</td>
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</tr>
<tr>
<td>✦ OFC 172</td>
<td>Beginning Typing**</td>
<td>3</td>
</tr>
<tr>
<td>✦ OFC 173</td>
<td>Intermediate Typing</td>
<td>(3)</td>
</tr>
<tr>
<td>+ COM 131</td>
<td>Applied Composition and Speech</td>
<td>3</td>
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<tr>
<td>MTH 130</td>
<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td>BUS 105</td>
<td>Introduction to Business</td>
<td>3</td>
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#### SEMESTER II

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<td>Intermediate Typing or Advanced Typing Applications</td>
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<tr>
<td>OFC 273</td>
<td>Advanced Typing Applications</td>
<td>3</td>
</tr>
<tr>
<td>OFC 162</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OFC 165</td>
<td>Introduction to Word Processing</td>
<td>3</td>
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<td>CS 175</td>
<td>Introduction to Computer Science</td>
<td>3</td>
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<tr>
<td>MGT 136</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>+ COM 132</td>
<td>Applied Composition and Speech</td>
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#### SEMESTER III

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<td>Advanced Typing Applications or</td>
<td>2</td>
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<td>3</td>
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<tr>
<td>OFC 231</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>ACC 131</td>
<td>Bookkeeping I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>PSY 131</td>
<td>Human Relations or</td>
<td>3</td>
</tr>
<tr>
<td>PSY 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
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#### SEMESTER IV

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<tbody>
<tr>
<td>OFC 256</td>
<td>Office Management or</td>
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<tr>
<td>✦ BUS 237</td>
<td>Organizational Behavior</td>
<td>3</td>
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<td>✦ Elective</td>
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<tr>
<td>HUM 101</td>
<td>Introduction to Humanities</td>
<td>3</td>
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<tr>
<td>✦ Electives</td>
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Minimum Hours Required:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>✦ Electives</td>
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<tr>
<td>OFC</td>
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<tr>
<td>OFC 503/804</td>
<td>Cooperative Work Experience</td>
<td>3-4</td>
</tr>
<tr>
<td>ACC 132</td>
<td>Bookkeeping II</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 143</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 234</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 237</td>
<td>Organizational Behavior</td>
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<tr>
<td>MGT 138</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>MGT 242</td>
<td>Personnel Administration</td>
<td>3</td>
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<tr>
<td>CS 250</td>
<td>Contemporary Topics in Computer Science</td>
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<tr>
<td>CS 251</td>
<td>Special Topics in Computer Science</td>
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<td>ECO 201</td>
<td>Principles of Economics I</td>
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<tr>
<td>SPE 105</td>
<td>Fundamentals of Public Speaking</td>
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<td><strong>Total</strong></td>
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</table>

Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests.

Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. However, students must take SPE 105 as an elective when substituting ENG 101 and ENG 102.

*OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

**OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.

### OFFICE CAREERS — GENERAL OFFICE

(Certificate)

The General Office Certificate Program is designed to provide the student with a basic working knowledge and skills in various office activities. A general knowledge of business concepts and procedures is provided.

#### SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFC 160</td>
<td>Office Calculating Machines</td>
<td>3</td>
</tr>
<tr>
<td>✦ OFC 172</td>
<td>Beginning Typing**</td>
<td>3</td>
</tr>
<tr>
<td>✦ OFC 173</td>
<td>Intermediate Typing</td>
<td>(3)</td>
</tr>
<tr>
<td>✦ ACC 131</td>
<td>Applied Composition and Speech</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>✦ BUS 105</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>✦ Electives</td>
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#### SEMESTER II

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<thead>
<tr>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ACC 131</td>
<td>Bookkeeping I</td>
<td>3</td>
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<tr>
<td>✦ BUS 105</td>
<td>Introduction to Business</td>
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<td>CS 175</td>
<td>Introduction to Computer Science</td>
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Minimum Hours Required:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>✦ Electives</td>
<td>— Must be taken from the following:</td>
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<tr>
<td>OFC 103</td>
<td>Speedwriting Theory</td>
<td>4</td>
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<tr>
<td>OFC 104</td>
<td>Speedwriting Dictation</td>
<td>3</td>
</tr>
<tr>
<td>OFC 159</td>
<td>Beginning Shorthand</td>
<td>4</td>
</tr>
<tr>
<td>OFC 162</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OFC 165</td>
<td>Introduction to Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OFC 166</td>
<td>Intermediate Shorthand***</td>
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<td>OFC 173</td>
<td>Intermediate Typing</td>
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<td>Business Communications</td>
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<tr>
<td>ACC 132</td>
<td>Bookkeeping II</td>
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<td>ACC 201</td>
<td>Principles of Accounting I</td>
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<tr>
<td>✦ COM 132</td>
<td>Applied Composition and Speech</td>
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<td>PSY 105</td>
<td>Human Relations or</td>
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<tr>
<td>PSY 131</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<td>MGT 136</td>
<td>Principles of Management</td>
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<tr>
<td>BUS 234</td>
<td>Business Law</td>
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<tr>
<td>CS 250</td>
<td>Contemporary Topics in Computer Science</td>
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<tr>
<td>OFC 275</td>
<td>Advanced Typing Applications</td>
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<tr>
<td>OFC 275</td>
<td>Secretarial Procedures</td>
<td>3</td>
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<tr>
<td>OFC 303</td>
<td>Cooperative Work Experience or</td>
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</tr>
<tr>
<td>OFC 804</td>
<td>Cooperative Work Experience (4)</td>
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<td><strong>Total</strong></td>
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</table>

Students who can demonstrate proficiency by previous training, experience or placement tests may substitute a course from the electives listed for the program.

*OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

**OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.

***OFC 187, OFC 188 and OFC 189 taken cumulatively will be equivalent to OFC 166.
### OFFICE CAREERS — GENERAL OFFICE

(Certificate — Office Clerical Emphasis)

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFC 160 Office Calculating Machines *</td>
<td>3</td>
</tr>
<tr>
<td>OFC 162 Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>† OFC 172 Beginning Typing**</td>
<td>3</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130 Business Mathematics</td>
<td>3</td>
</tr>
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<td>† Elective</td>
<td>3</td>
</tr>
<tr>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER II</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>OFC 165 Introduction to Word Processing</td>
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<td>OFC 173 Intermediate Typing</td>
<td>3</td>
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<tr>
<td>OFC 231 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>ACC 131 Bookkeeping I</td>
<td>3</td>
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<tr>
<td>BUS 105 Introduction to Business</td>
<td>3</td>
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<tr>
<td>CS 175 Introduction to Computer Science</td>
<td>3</td>
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<td>† Elective</td>
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</tr>
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</table>

**Minimum Hours Required:**

36

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†Electives — Must be taken from the following:

- OFC 103 Speedwriting Theory
- OFC 104 Speedwriting Dictation
- OFC 159 Beginning Shorthand
- OFC 166 Intermediate Shorthand**
- OFC 231 Business Communications
- ACC 132 Bookkeeping II
- ACC 201 Principles of Accounting I
- COM 132 Applied Composition and Speech
- PSY 105 Introduction to Psychology or
- PSY 131 Human Relations
- MGT 136 Principles of Management
- BUS 234 Business Law
- CS 250 Contemporary Topics in Computer Science
- OFC 273 Advanced Typing Applications
- OFC 275 Secretarial Procedures
- OFC 803 Cooperative Work Experience or
- OFC 804 Cooperative Work Experience (4)

$Students who can demonstrate proficiency by previous training, experience or placement tests may substitute a course from the electives listed for the program.

*OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

**OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.

***OFC 187, OFC 189 and OFC 189 taken cumulatively will be equivalent to OFC 166.

### OFFICE CAREERS — GENERAL OFFICE

(Certificate — Accounting Emphasis)

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>HOURS</th>
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</thead>
<tbody>
<tr>
<td>OFC 160 Office Calculating Machines</td>
<td>3</td>
</tr>
<tr>
<td>† OFC 172 Beginning Typing**</td>
<td>3</td>
</tr>
<tr>
<td>ACC 131 Bookkeeping I or</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>COM 131 Applied Composition and Speech</td>
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<tr>
<td>MTH 130 Business Mathematics</td>
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<td>† Elective</td>
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<table>
<thead>
<tr>
<th>SEMESTER II</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
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<td>† ACC 132 Bookkeeping II or</td>
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<tr>
<td>† Elective</td>
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<tr>
<td>BUS 105 Introduction to Business</td>
<td>3</td>
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<tr>
<td>CS 175 Introduction to Computer Science</td>
<td>3</td>
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<td>† Electives</td>
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</table>

**Minimum Hours Required:**

35

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†Electives — Must be taken from the following:

- OFC 103 Speedwriting Theory
- OFC 104 Speedwriting Dictation
- OFC 159 Beginning Shorthand
- OFC 162 Office Procedures
- OFC 165 Introduction to Word Processing
- OFC 166 Intermediate Shorthand**
- OFC 173 Intermediate Typing
- OFC 231 Business Communications
- ACC 132 Bookkeeping II
- ACC 201 Principles of Accounting I
- COM 132 Applied Composition and Speech
- PSY 105 Introduction to Psychology or
- PSY 131 Human Relations
- MGT 136 Principles of Management
- BUS 234 Business Law
- CS 250 Contemporary Topics in Computer Science
- OFC 273 Advanced Typing Applications
- OFC 275 Secretarial Procedures
- OFC 803 Cooperative Work Experience or
- OFC 804 Cooperative Work Experience (4)

$Students who can demonstrate proficiency by previous training, experience or placement tests may substitute a course from the electives listed for the program.

*OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

**OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.

***OFC 187, OFC 188 and OFC 189 taken cumulatively will be equivalent to OFC 166.

† Required if ACC 131 was taken previously.

*OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

**OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.

***OFC 187, OFC 188 and OFC 189 taken cumulatively will be equivalent to OFC 166.
OFFICE CAREERS — LEGAL SECRETARY OPTION

(Associate Degree)

The primary objective of this option is to prepare students to become competent legal secretaries, capable of performing office and clerical duties within public and private firms and agencies. Students enrolled in the program will have an opportunity to secure intensive training in basic skills. An Associate in Applied Arts and Sciences Degree is awarded for successful completion.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFC 159 Beginning Shorthand or OFC 103 Speedwriting</td>
<td>4</td>
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<tr>
<td>OFC 160 Office Calculating Machines</td>
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<tr>
<td>† OFC 172 Beginning Typing** or OFC 173 Intermediate Typing</td>
<td>3</td>
</tr>
<tr>
<td>† COM 131 Applied Composition and Speech MTH 130 Business Mathematics</td>
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<tr>
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<tbody>
<tr>
<td>OFC 166 Intermediate Shorthand*** or OFC 104 Speedwriting Dictation</td>
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<tr>
<td>† OFC 173 Intermediate Typing or OFC 273 Advanced Typing Applications</td>
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<tr>
<td>OFC 162 Office Procedures ACC 131 Bookkeeping I</td>
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<tr>
<td>BUS 105 Introduction to Business</td>
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<tr>
<td>† COM 132 Applied Composition and Speech</td>
<td>3</td>
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<tr>
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<tr>
<td>OFC 165 Introduction to Word Processing OFC 167 Legal Terminology and Transcription</td>
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<tr>
<td>OFC 231 Business Correspondence</td>
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<tr>
<td># OFC 266 Advanced Shorthand</td>
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<tr>
<td>OFC 273 Advanced Typing Applications or † Elective</td>
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<tr>
<td>CS 175 Introduction to Computer Science</td>
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<tr>
<td>OFC 275 Secretarial Procedures or OFC 803 Cooperative Work Experience or OFC 804 Cooperative Work Experience</td>
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<tr>
<td>HUM 101 Introduction to Humanities PSY 131 Human Relations or</td>
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<tr>
<td>PSY 105 Introduction to Psychology</td>
<td>3</td>
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</table>

Minimum Hours Required: 66

†Electives — Must be taken from the following:

- OFC Any OFC course may be selected
- OFC 803/804 Cooperative Work Experience
- ACC 132 Bookkeeping II
- ACC 202 Principles of Accounting II
- BUS 143 Personal Finance
- BUS 234 Business Law
- BUS 237 Organizational Behavior
- MGT 136 Principles of Management
- MGT 242 Personnel Administration
- CS 250 Contemporary Topics in Computer Science
- CS 251 Special Topics in Computer Science & Data Processing
- ECO 201 Principles of Economics I
- † SPE 105 Fundamentals of Public Speaking

* Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests.

** Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. However, students must take SPE 105 as an elective when substituting ENG 101 and ENG 102.

† If OFC 103 and OFC 104 are taken, an approved elective may be substituted.

* OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.
** OFC 176, OFC 177 and OFC 178 taken cumulatively will be equivalent to OFC 172.
*** OFC 187, OFC 188 and OFC 189 taken cumulatively will be equivalent to OFC 166.
OFFICE CAREERS — PROFESSIONAL SECRETARY OPTION

( Associate Degree )

The primary objective of this option is to prepare students to become competent secretaries capable of performing office and clerical duties within public and private firms and agencies. Students enrolled in the program will have an opportunity to secure intensive training in basic skills. An Associate in Applied Arts and Sciences Degree is awarded for successful completion.

CREDIT HOURS

<table>
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<tr>
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<tbody>
<tr>
<td>OFC 160</td>
<td>Office Calculating Machines *</td>
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<tr>
<td>OFC 159</td>
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<tr>
<td>OFC 103</td>
<td>Speedwriting</td>
</tr>
<tr>
<td>† OFC 172</td>
<td>Beginning Typing** or</td>
</tr>
<tr>
<td>OFC 173</td>
<td>Intermediate Typing</td>
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<tr>
<td>‡ COM 131</td>
<td>Applied Composition and Speech</td>
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<tr>
<td>MTH 130</td>
<td>Business Mathematics</td>
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<td>OFC 166</td>
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<td>OFC 104</td>
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<td>OFC 273</td>
<td>Advanced Typing Applications</td>
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<td>OFC 162</td>
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<td>ACC 131</td>
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<td>ACC 201</td>
<td>Principles of Accounting I</td>
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<td>‡ COM 132</td>
<td>Applied Composition and Speech</td>
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17-19

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<tr>
<td>OFC 165</td>
<td>Introduction to Word Processing</td>
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<td>OFC 231</td>
<td>Business Correspondence</td>
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<td>CS 175</td>
<td>Introduction to Computer Science</td>
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<tr>
<td># OFC 266</td>
<td>Advanced Shorthand</td>
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<tr>
<td>PSY 131</td>
<td>Human Relations or</td>
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<td>PSY 105</td>
<td>Introduction to Psychology</td>
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<tr>
<td>OFC 273</td>
<td>Advanced Typing Applications or</td>
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18-19

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<tr>
<td>OFC 265</td>
<td>Word Processing Practices and Procedures</td>
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<td>Secretarial Procedures or</td>
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<td>OFC 803</td>
<td>Cooperative Work Experience or</td>
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<td>OFC 804</td>
<td>Cooperative Work Experience</td>
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<td>HUM 101</td>
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<td>† Electives</td>
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15-17

Minimum Required Hours: 66

†Electives — Must be taken from the following:

- OFC Any OFC course may be selected
- OFC 803/804 Cooperative Work Experience 34
- ACC 132 Bookkeeping II 3
- ACC 202 Principles of Accounting II 3
- BUS 143 Personal Finance 3
- BUS 234 Business Law 3
- BUS 237 Organizational Behavior 3
- MGT 136 Principles of Management 3
- MGT 242 Personnel Administration 3
- CS 250 Contemporary Topics in Computer Science 3
- CS 251 Special Topics in Computer Science & Data Processing 4
- ECO 201 Principles of Economics I 3
- ‡ SPE 105 Fundamentals of Public Speaking 3

† Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests.

‡ Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. However, students must take SPE 105 as an elective when substituting ENG 101 and ENG 102.

• OFC 192, OFC 193 and OFC 194 taken cumulatively will be equivalent to OFC 160.

• OFC 197, OFC 198 and OFC 199 taken cumulatively will be equivalent to OFC 166.

• OFC 197, OFC 198 and OFC 199 taken cumulatively will be equivalent to OFC 166.

If OFC 103 and OFC 104 are taken, an approved elective may be substituted.
This program will develop competencies for students to enter employment in paraprofessional positions as social work associates in various social service agencies. The program combines human services courses and other studies with special emphasis given to actual social service agency involvement and work.

### SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HS 131</td>
<td>Orientation to Human Services</td>
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<tr>
<td>ENG 101</td>
<td>Composition and Expository Reading</td>
<td>3</td>
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<tr>
<td>PSY 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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### SEMESTER II

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<tr>
<td>ENG 102</td>
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<td>PSY 201</td>
<td>Developmental Psychology</td>
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<tr>
<td>SOC 102</td>
<td>Social Problems</td>
<td>3</td>
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<td>SOC 206</td>
<td>Introduction to Social Work</td>
<td>3</td>
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### SEMESTER III

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<th>Course Code</th>
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<tbody>
<tr>
<td>HS 233</td>
<td>Counseling for the Paraprofessional</td>
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<tr>
<td>HS 244</td>
<td>Social Work Problems and Practices</td>
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</tr>
<tr>
<td>HS 803</td>
<td>Cooperative Work Experience*</td>
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<tr>
<td>PSY 205</td>
<td>Psychology of Personality</td>
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<td>SOC 203</td>
<td>Marriage and Family</td>
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### SEMESTER IV

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<tbody>
<tr>
<td>HS 235</td>
<td>Introduction to Mental Health</td>
<td>3</td>
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<tr>
<td>HS 245</td>
<td>Social Work Problems and Practices</td>
<td>3</td>
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<tr>
<td>HS 813</td>
<td>Cooperative Work Experience*</td>
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<tr>
<td>SOC 204</td>
<td>American Minorities</td>
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Minimum Hours Required: 60

† Electives — Must be selected from the following:
- ANT 101 Cultural Anthropology 3
- BIO 116 Biological Science 4
- CD 140 Early Childhood Development, 0-3 Years 3
- GVT 201 American Government 3
- GVT 202 American Government 3
- HST 101 History of the United States 3
- HST 102 History of the United States 3
- HUM 101 Introduction to the Humanities 3
- PEH 101 Fundamentals of Health 3
- PEH 257 Advanced First Aid and Emergency Care 3
- PSY 207 Social Psychology 3
- RD 101 Effective College Reading 3
- SOC 205 Introduction to Social Problems 3
- SOC 231 Urban Social Problems 3
- SPA 101 Beginning Spanish 4

* HS 703, HS 704, HS 713, HS 714, HS 802, HS 804, HS 812, HS 814, may be taken with consent of instructor.

### SOCIAL WORK ASSOCIATE

(Certificate)

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<th>Course Code</th>
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<tr>
<td>HS 131</td>
<td>Orientation to Human Services</td>
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<tr>
<td>COM 131</td>
<td>Applied Composition and Speech*</td>
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<td>HD 107</td>
<td>Developing Leadership Behavior</td>
<td>3</td>
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<td>PSY 131</td>
<td>Human Relations**</td>
<td>3</td>
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<td>SOC 101</td>
<td>Introduction to Sociology</td>
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### SEMESTER I

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<td>Introduction to Mental Health</td>
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<td>HS 245</td>
<td>Social Work Problems and Practices</td>
<td>3</td>
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<tr>
<td>HS 813</td>
<td>Cooperative Work Experience*</td>
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<tr>
<td>SOC 206</td>
<td>Introduction to Social Work</td>
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Minimum Hours Required: 30

* English 101 may be substituted with the approval of the program coordinator.
** Psychology 105 may be substituted with the approval of the program coordinator.
### Training ParaProfessionals for the Deaf (Associate Degree)

This program is designed to train individuals at a paraprofessional level to work with the deaf. Course work will provide skills to work as an interpreter for the deaf, educational assistant, media specialist, aide with the multiply-handicapped, or house parent in residential schools.

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<td>TPD 140</td>
<td>Introduction to Deafness</td>
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<tr>
<td>TPD 141</td>
<td>Beginning Sign Language</td>
<td>4</td>
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<tr>
<td>TPD 142</td>
<td>Communication Theory</td>
<td>3</td>
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<td>TPD 147</td>
<td>Language Development of the Deaf</td>
<td>3</td>
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<td>Eng 101</td>
<td>Composition and Expository Reading</td>
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<tr>
<td>TPD 143</td>
<td>Intermediate Sign Language</td>
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<tr>
<td>TPD 144</td>
<td>Psychosocial Aspects of Deafness</td>
<td>3</td>
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<tr>
<td>TPD 148</td>
<td>Receptive Fingerspelling</td>
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<td>TPD 149</td>
<td>Management Skills for the Interpreter/Aide</td>
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<td>Cooperative Work Experience or</td>
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<td>TPD 230</td>
<td>Interpreting: Ethics and Specifics</td>
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<td>TPD 240</td>
<td>Advanced Sign Language</td>
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<tr>
<td>TPD 247</td>
<td>Special Problems in Deafness*</td>
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<tr>
<td>SPE 109</td>
<td>Voice and Articulation</td>
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<tr>
<td>TPD 248</td>
<td>Rehabilitation of the Multiply-Handicapped Deaf</td>
<td>3</td>
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<tr>
<td>TPD 250</td>
<td>Interpreting: Sign to Voice</td>
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<tr>
<td>TPD 251</td>
<td>Education/Specialized Signs</td>
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<tr>
<td>TPD 252</td>
<td>Interpreting: Voice to Sign</td>
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<tr>
<td>TPD 813</td>
<td>Cooperative Work Experience or</td>
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Minimum Hours Required: 17

+Electives - Must be selected from the following:

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<td>Basic Processes of Interpersonal Relationships</td>
<td>3</td>
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<tr>
<td>HD 106</td>
<td>Personal and Social Growth</td>
<td>3</td>
</tr>
<tr>
<td>PSY 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
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* TPD 247 may be repeated for credit as topics vary.

### Training ParaProfessionals for the Deaf (Certificate)

This certificate program will offer training for working with the deaf in a range of occupational settings, with primary emphasis on those students in vocational training, educational environments and community agencies.

<table>
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<tr>
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<tbody>
<tr>
<td>TPD 140</td>
<td>Introduction to Deafness</td>
<td>3</td>
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<tr>
<td>TPD 141</td>
<td>Beginning Sign Language</td>
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<tr>
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<td>Communication Theory</td>
<td>3</td>
</tr>
<tr>
<td>TPD 147</td>
<td>Language Development of the Deaf</td>
<td>3</td>
</tr>
<tr>
<td>TPD 148</td>
<td>Receptive Fingerspelling</td>
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<tr>
<td>Eng 101</td>
<td>Composition and Expository Reading</td>
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<tr>
<td>TPD 144</td>
<td>Psychosocial Aspects of Deafness</td>
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</tr>
<tr>
<td>TPD 802</td>
<td>Cooperative Work Experience or</td>
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<tr>
<td>Eng 102</td>
<td>Composition and Literature</td>
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+Technical Elective | 3-4 |

Minimum Hours Required: 15-19

*Technical Elective--Must be selected from the following:

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<td>Management Skills for the Interpreter/Aide</td>
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<td>TPD 230</td>
<td>Interpreting: Ethics and Specifics</td>
<td>4</td>
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<td>TPD 247</td>
<td>Special Problems in Deafness</td>
<td>3</td>
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<td>TPD 248</td>
<td>Rehabilitation of the Multiply-Handicapped Deaf</td>
<td>3</td>
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Minimum Hours Required: 32

+Elective--Must be selected from the following:

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<tr>
<td>HD 106</td>
<td>Personal and Social Growth</td>
<td>3</td>
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<tr>
<td>PSY 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>Developmental Psychology</td>
<td>3</td>
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</table>
TRANSPORTATION TECHNOLOGY

(associate Degree)

The objectives of the Transportation Technology Program are to prepare trained entry-level manpower for the transportation industry of North Texas with the ability to advance into management positions such as traffic managers, terminal managers, safety specialists, ICC practitioners and other related areas.

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<td>TRT 146 Transportation and Traffic Management</td>
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<td>BUS 105 Introduction to Business</td>
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<td>COM 131 Applied Composition and Speech or ENG 101 Composition and Expository Reading</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130 Business Mathematics or MTH 111 Mathematics for Business and Economics I</td>
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<tr>
<th>SEMESTER II</th>
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<tbody>
<tr>
<td>TRT 145 Introduction to Rates and Tariffs</td>
<td>3</td>
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<tr>
<td>TRT 147 Economics of Transportation</td>
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<tr>
<td>TRT 713 Cooperative Work Experience or COM 132 Applied Composition and Speech or ENG 102 Composition and Literature</td>
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<tr>
<td>MGT 136 Principles of Management</td>
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<tbody>
<tr>
<td>TRT 240 Interstate Commerce Law I</td>
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<td>TRT 249 Applied Rates and Tariffs</td>
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<td>TRT 287 Physical Distribution Management I</td>
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<tr>
<td>TRT 803 Cooperative Work Experience or ACC 201 Principles of Accounting I or ACC 131 Bookkeeping I</td>
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<tr>
<td>TRT 288 Physical Distribution Management II</td>
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<tr>
<td>TRT 813 Cooperative Work Experience or ACC 202 Principles of Accounting II or ACC 132 Bookkeeping II</td>
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Minimum Hours Required: 60
WELDING TECHNOLOGY

(Associate Degree)

The Welding Technology program is designed to prepare the student in the basic processes of oxyacetylene and arc welding plus many specialized welding applications as options to fit the specific needs of the student. In addition, instruction is offered in related support areas such as metallurgy, tooling, drafting, pattern layout and characteristics of materials. Thus, the program offers preparation for both entry level jobs as well as welding inspectors.

The student will be required to purchase a basic set of tools which will be used in class and later on the job. Tool lists will be given out by the instructor during the first week of classes.

<table>
<thead>
<tr>
<th>SEMESTER I</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>WE 111</td>
<td>Oxyfuel I</td>
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<tr>
<td>WE 112</td>
<td>Oxyfuel II</td>
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<tr>
<td>WE 113</td>
<td>Shielded Metal Arc Welding I</td>
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<tr>
<td>WE 114</td>
<td>Shielded Metal Arc Welding II</td>
</tr>
<tr>
<td>DFT 182</td>
<td>Technician Drafting</td>
</tr>
<tr>
<td>MTH 195</td>
<td>Technical Mathematics</td>
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<tr>
<td>COM 131</td>
<td>Applied Composition and Speech</td>
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<td>WE 117</td>
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<tr>
<td>WE 118</td>
<td>Welding Inspection and Quality Control</td>
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<tr>
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<td>Human Relations</td>
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<td>Gas Tungsten Arc Welding I</td>
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<tr>
<td>WE 212</td>
<td>Gas Tungsten Arc Welding II</td>
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<tr>
<td>WE 214</td>
<td>Gas Metal Arc Welding I</td>
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<tr>
<td>WE 215</td>
<td>Gas Metal Arc Welding II</td>
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<tr>
<td>WE 217</td>
<td>Basic Welding Metallurgy</td>
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<tr>
<td>PHY 131</td>
<td>Applied Physics</td>
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<td>Shielded Metal Arc Welding IV</td>
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<tr>
<td>WE 213</td>
<td>Gas Tungsten Arc Welding III</td>
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<tr>
<td>WE 216</td>
<td>Gas Metal Arc Welding III</td>
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<tr>
<td>WE 219</td>
<td>Welding Design</td>
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Minimum Hours Required: 65

1 Electives must be selected from the following:

- ACC 131: Bookkeeping I
- ACC 132: Bookkeeping II
- GT 201: American Government
- MTH 111: Mathematics for Business and Economics
- WE 218: Applied Welding Metallurgy
- WE 220: Special Welding Application I

WELDING TECHNOLOGY

(Certificate)

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<tr>
<td>WE 213</td>
<td>Gas Tungsten Arc Welding III*</td>
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<td>WE 216</td>
<td>Gas Metal Arc Welding III*</td>
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</table>

Minimum Hours Required: 35

* WE 704 Cooperative Work Experience may be substituted for WE 213 or WE 216.
VOCATIONAL NURSING

The Vocational Nursing Program is a twelve month program offered at Eastfield College under the administration and accreditation of the El Centro College Vocational Nursing Program. Students apply for admission to Eastfield College, attend classes at Eastfield College but receive their certificate of completion from El Centro College. The program is accredited by the Board of Vocational Nurse Examiners for the State of Texas. Upon completion of the program, the student may write the State Licensing Examination for Vocational Nurses, in order to become a Licensed Vocational Nurse (LVN).

The Vocational Nursing Program prepares individuals to give direct patient care under the supervision of a registered nurse or a physician. The program includes classroom and laboratory work on campus as well as clinical experience at various area hospitals. Students are admitted to the program in both the fall and spring semesters.

<table>
<thead>
<tr>
<th>PROGRAM/COURSES</th>
<th>LEC. HOURS</th>
<th>LAB HOURS</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>SEMESTER I (Fall or Spring)</td>
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<tr>
<td>BIO 123  Applied Anatomy &amp; Physiology</td>
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<td>DM 064  Math for Nurses</td>
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<td>HD 100  Study Skills</td>
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<tr>
<td>VN 144  Health Maintenance through the Life Cycle</td>
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<tr>
<td>VN 145  Nursing Process I</td>
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<td>VN 152  Nursing Practice</td>
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<td>VN 153  Maternal Child Health</td>
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<td>VN 154  Maternal Child Health Clinical</td>
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Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, and completion of all requirements for admission as a full time student to the college.