

1987-88  
Mountain View College Catalog  
Dallas County Community College District





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# Mountain View College Catalog 1987-88



**Mountain View College**  
4849 West Illinois Avenue  
Dallas, Texas 75211-6599

**Call for information:**  
**Counseling — 333-8606**  
**Admissions — 333-8600**

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This publication prepared by the Dallas County Community College District Office of Public Information.

The Dallas County Community College District is an equal opportunity institution.

# ACADEMIC CALENDAR

## 1987-88

### Summer Sessions, 1987

*First Summer Session: (Based on 4 day class week)*

June 4	Registration
June 8	Classes Begin
June 11	4th Class Day
June 25	Last Day to Withdraw with "W"
July 9	Final Exams
July 9	Semester Closes

*Second Summer Session: (Based on 4 day class week)*

July 13	Registration
July 15	Classes Begin
July 21	4th Class Day
August 4	Last Day to Withdraw with "W"
August 18	Final Exams
August 18	Semester Closes

### Fall Semester, 1987

August 24 (M)	Faculty Reports
August 25-27 (T-R)	Registration Period (varies by campus)
August 28 (F)	Faculty Professional Development
August 31 (M)	Classes Begin (M-R Classes)
September 7 (M)	Labor Day Holiday
September 11 (F)	Friday <i>Only</i> Classes Begin
September 12 (S)	Saturday Classes Begin
September 15 (T)	12th Class Day
November 5 (R)	Last Day to Withdraw with "W"
November 26 (R)	Thanksgiving Holidays Begin
November 30 (M)	Classes Resume
December 14-17 (M-R)	Final Exams (M-R Classes)
December 18 (F)	Final Exams for Friday Classes
December 19 (S)	Final Exams for Saturday Classes
December 19 (S)	Semester Closes
December 21 (M)	Grades due in Registrar's Office at 10:00 a.m.

### Spring Semester, 1988

January 11 (M)	Faculty Reports
January 12-14 (T-R)	Registration Period (varies by campus)
January 15 (F)	Faculty Professional Development
January 15 (F)	Friday <i>Only</i> Classes Begin
January 16 (S)	Saturday Classes Begin
January 18 (M)	Classes Begin (M-R Classes)
January 28 (R)	12th Class Day
March 3 (R)	District Conference Day
March 4 (F)	Faculty Professional Development (TJCTA)
	<b>(No Saturday Classes)</b>
March 14 (M)	Spring Break Begins
March 18 (F)	Spring Holiday for All Employees
March 21 (M)	Classes Resume
March 31 (R)	Last Day to Withdraw with "W"
April 1 (F)	Religious Holidays Begin
April 4 (M)	Classes Resume
May 6 (F)	Final Exams for Friday Classes
May 7 (S)	Final Exams for Saturday Classes
May 9-12 (M-R)	Final Exams (M-R Classes)
May 12 (R)	Graduation
May 12 (R)	Semester Closes
May 16 (M)	Grades due in Registrar's Office at 10:00 a.m.

### Summer Sessions, 1988

*First Summer Session: (Based on 4 day class week)*

May 30 (M)	Memorial Day Holiday
June 2 (R)	Registration
June 6 (M)	Classes Begin
June 9 (R)	4th Class Day
June 10 (F)	Friday Class Meeting
June 23 (R)	Last Day to Withdraw with "W"
July 7 (R)	Final Exams
July 7 (R)	Semester Closes
July 11 (M)	Grades due in Registrar's Office at 10 a.m.

*Second Summer Session: (Based on 4 day class week)*

July 12 (T)	Registration
July 13 (W)	Classes Begin
July 19 (T)	4th Class Day
August 4 (R)	Last Day to Withdraw with "W"
August 16 (T)	Final Exams
August 16 (T)	Semester Closes
August 18 (R)	Grades due in Registrar's Office at 10 a.m.

## Dallas County Community College District Board of Trustees



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# MOUNTAIN VIEW COLLEGE

In southwestern Dallas County, Mountain View College is the community learning center for thousands of people. The second of seven colleges in the Dallas County Community College District, Mountain View opened in the fall of 1970. It is located at 4849 West Illinois Avenue in the southwestern section of Oak Cliff in Dallas and serves residents of South Dallas, Oak Cliff, Duncanville, Cedar Hill and parts of Grand Prairie.

The various programs at Mountain View are designed to meet a broad range of educational needs. Students may elect to complete their first two years of study leading toward a bachelor's degree, or they may prepare for a career in an occupational or technical area. Many students attend Mountain View to train for advancement in their present employment or to train for an entirely new career opportunity. Non-credit courses also are available for people of all ages to gain personal enrichment, cultural awareness or to participate in productive leisure time activities.

The Mountain View student body is composed of people of all ages and all backgrounds. The College represents a cross section of the community which it serves. This rich opportunity to interact with many varied people is an important part of the educational process and is well established in the Mountain View tradition.

## The Campus

The campus sits on the crest of a ridge that gives students an outstanding view of the downtown Dallas skyline to the north. Care has been taken to preserve the natural beauty of the 200-acre site. The long, flat-roofed buildings stretch out gracefully along both sides of a rocky ravine and natural creek which has been landscaped into a very pleasant interior courtyard and garden. Footpaths and stone terraces provide a beautiful area to walk, study or relax. An enclosed pedestrian bridge spans the ravine, giving easy access to all parts of the campus and providing a beautiful architectural focal point to the College.

## Accreditation

Mountain View College is a member of:  
The Southern Association of Colleges and Schools

## Institutional Memberships

The American Association of Community and Junior Colleges.  
The League for Innovation in the Community College

Mountain View College 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.

## MOUNTAIN VIEW COLLEGE ADMINISTRATION

President	W. H. Jordan	333-8700
Vice President of Business Service	Bob Brown	333-8705
Vice President of Instruction	Linda Stegall	333-8710
Vice President of Student Development	John Nelson	333-8696
Evening Administrator	Dick Smith	333-8610
Dean, Career & Continuing Education	Don Perry	333-8755
Dean, Educational Resources	Jim Corvey	333-8664
Dean, Student Support Services		
Counseling	Donna Richards	333-8606
Health/Disabled Student Services	Donna Richards	333-8699
Director of Admissions/Registrar	Don Gentsch	333-8600
Director of Business Operations	Jim Jones	333-8705
Director of Financial Aid	Wilma Robinson	333-8688
Director of Public Information	Sharron Colburn	333-8678
Director of Student Programs & Resources	Guy Gooding	333-8685

## DIVISION CHAIRPERSONS

Business	Tom Goza	333-8616
Communications and Technology	David Wickham	333-8624
Aviation/Fine Arts/Physical Education	Ann Cunningham	333-8632
Science and Mathematics Technology	Clifford Miller	333-8649
Social Science and Technology	William F. Muggleston	333-8656

## MOUNTAIN VIEW COLLEGE FACULTY AND STAFF

<b>Aifers, Kenneth G.</b>	History
Creighton Univ., B.A., M.A.; George Washington Univ., M.Ph., Ph.D.	
<b>Allen, Gemmy</b>	Mid-Management
Univ. of Texas, Arlington, B.B.A.; North Texas State Univ., M.B.A.	
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Kilgore Jr. College, A.A.; Baylor Univ., B.S., M.S.; North Texas State Univ., Ed.D.	
<b>Benson, Paul F.</b>	English
Pacific Lutheran Univ., B.A.; Colorado State Univ., M.A.; North Texas State Univ., Ph.D.	
<b>Brown, Bob</b>	Vice President of Business Services
North Texas State Univ., B.B.A., C.P.A.	
<b>Brown, David L.</b>	Drafting
East Texas State Univ., B.S., M.Ed.	
<b>Brown, Jean W.</b>	Music
Texas Woman's Univ., B.S., M.A.	
<b>Caldwell, Leleonia E.</b>	Reading
Bishop College, B.S.; Southeastern State College, M.Ed.	
<b>Coad, Bruce</b>	English
Wittenburg Univ., B.A.; Univ. of North Carolina, M.A.; Duke Univ., Ph.D.	
<b>Colburn, Sharron</b>	Director, Public Information
Dallas Baptist Univ., B.C.A.	
<b>Cook, E. Wayne</b>	English
Hardin-Simmons Univ., B.A.; Texas Tech Univ., M.A., Ph.D.	
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Univ. of Texas, Austin, B.A.; Our Lady of the Lake College, M.Ed.; Nova Univ., Ed.D.	
<b>Corvey, Sanford James</b>	Dean, Educational Resources
Florida Atlantic Univ., B.A., M.Ed.; State Univ. of New York, Geneseo, M.L.S.	
<b>Cowan, John A.</b>	Art
Kansas State Univ., B.S., M.A.	
<b>Cunningham, Ann R.</b>	Chairperson, Aviation/Fine Arts/Physical Education
Baylor Univ., B.S., M.S.	
<b>Curtis, Ed</b>	Aviation Technology
Southeastern Oklahoma State Univ., B.S.; A.T.P., Flight Instructor, Ground Instructor, Pilot Examiner	
<b>Delong, J. Richard</b>	Mathematics
Southern Methodist Univ., B.A.; North Texas State Univ., M.Ed.	

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Colorado State Univ., B.S.M.E.; Amber Univ., M.S.

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Colorado State Univ., B.A., M.A.

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Univ. of Texas, Arlington, B.A.; North Texas State Univ., M.A.

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East Texas State Univ., B.S.; Univ. of Illinois, M.A.

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Mountain View College, A.A.A.S.; Univ. of Texas, Dallas, B.S.

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Univ. of Oregon, B.S.; Dallas Seminary, Th.M.;  
North Texas State Univ., M.F.A.

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Univ. of Texas, Austin, B.A., M.A.

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East Texas State Univ., B.S., M.S.

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Texas Tech Univ., B.A.; North Texas State Univ., M.Ed.

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**Goza, Tom** ..... Chairperson, Business Division  
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**Gregory, David A.** ..... Physical Education  
Temple Junior College, A.A.; Southwest Texas State Univ., B.S.;  
North Texas State Univ., M.Ed.

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**Hall, J.** ..... Dance  
Studies: Mountain View College; American Univ.; Univ. of Texas, Dallas

**Hamilton, Ramona** ..... Office Careers  
Hardin-Simmons Univ., B.B.A.; North Texas State Univ., M.B.E.

**Harris, Allatia** ..... Speech  
North Texas State Univ., B.A., M.A.

**Hegar, Kathryn W.** ..... Business  
North Texas State Univ., B.B.A., M.B.E.; Ph.D.

**Hettie, Mark** ..... Music  
North Texas State Univ., B.M., M.Ed.

**Holland, Ronald C.** ..... Physical Education  
Northeastern State College, B.S.; East Texas State Univ., M.Ed.

**Jones, Jim** ..... Director, Business Operations  
Univ. of Texas, Arlington, B.B.A.

**Jordan, W. H.** ..... President  
North Texas State Univ., B.S., M.Ed., Ed.D.

**Kavalier, Jim** ..... Acting Associate Dean, Continuing Education  
Univ. of Oregon, B.S., M.S.

**Knott, Allan** ..... Director, Physical Plant

**Korman, Frank** ..... Accounting  
Texas Christian Univ., B.B.A.; Univ. of Texas, Austin, M.A., Ph.D., C.P.A.

**Legg, Larry** ..... Biology  
Univ. of Southern Mississippi, B.S.; Northwestern Louisiana  
State Univ., M.S.

**Lockley, J. Elaine** ..... Mathematics  
Wiley College, B.S.; Texas Southern Univ., M.S.;  
Stanford Univ., M.S., Ph.D.

**Lovelace, Curtis** ..... Electronic Studies  
Univ. of Texas, Arlington; Mountain View College, Assoc. Applied Science

**McCain, Charles** ..... Resource Consultant  
East Texas State Univ., B.S., M.S., Ph.D.

**McLoda, William S.** ..... Geology Geography  
Ohio State Univ., B.S.; Indiana Univ., M.A.T.

**Means, Richard L.** ..... History  
Henderson State Teachers College, B.A.; Univ. of Arkansas, M.A.

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St. Thomas Seminary College, B.A.; Creighton Univ., M.S.;  
North Texas State Univ., Ph.D.

**Miller, Clifford D.** ..... Chairperson, Science Math Technology  
Wayne State Univ., B.S.; Washington Univ., M.A.; Univ. of Kentucky,  
Ph.D.; Studies: Max Planck Institute

**Mount, George** ..... Psychology  
Univ. of Texas, Arlington, B.A.; North Texas State Univ., Ph.D.

**Mugleston, William F.** ..... Chairperson, Social Science and Technology  
Johns Hopkins Univ., B.A.; Univ. of Virginia, M.A.; Univ. of Georgia, Ph.D.

**Nelson, John** ..... Vice President of Student Development  
Huston-Tillotson College, B.A.; Univ. of Denver, M.A.

**Ohlhausen, Orlan** ..... Mathematics  
Abilene Christian Univ., B.A., M.A.

**Olesen, Spencer** ..... Reading  
Stephen F. Austin State Univ., B.A.; East Texas State Univ., M.Ed.

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Texas Woman's Univ., B.A.; North Texas State Univ., M.L.S.

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Univ. of New Mexico, B.S.

**Oxsheer, Billy W.** ..... Sociology  
Texas Christian Univ., B.A., M.A.

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Airline Transport Pilot; Single and Multi-Engine, Basic, Advanced and  
Instrument Ground Instructor

**Penn, Howard L.** ..... Mathematics  
Southeastern State College, B.S.; North Texas State Univ., M.S., Ph.D.

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Memphis State Univ., B.A., M.Ed.

**Pierce, L. Jack** ..... Biology  
Sam Houston State Univ., B.S., M.A.; Texas A&M Univ., Ph.D.

**Pike, Patsy** ..... Office Careers  
Baylor Univ., B.B.A.; East Texas State Univ., M.B.A.

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Univ. of Houston, B.B.A.; East Texas State Univ., M.S.

**Pool, Larry** ..... History/Government  
Stephen F. Austin State Univ., B.S., M.A.

**Pritchett, John L.** ..... Economics  
Southern Methodist Univ., B.A.; North Texas State Univ., M.S.

**Richards, Donna** ..... Dean, Student Support Services  
Texas Woman's Univ., B.S., M.S.

**Roberts, Mary** ..... Accounting  
Louisiana State Univ., B.S.; Southern Methodist Univ., M.B.A., C.P.A.

**Robinson, Wilma W.** ..... Director, Financial Aid  
Savannah State College, B.S.; East Texas State Univ., M.S.

**Rodgers, Samuel A.** ..... Mathematics  
North Texas State Univ., B.A., M.S.; Univ. of Kentucky, Ph.D.

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Studies: Oscar Rose Junior College, Eastfield College

**Salter, Daniel M.** ..... Pilot Technology  
San Jacinto College, A.S.; F.A.A. Commercial Pilot Certificate;  
F.A.A. Flight Instructor Ratings; F.A.A. Ground Instructor Ratings;  
F.C.C. Radio Operator License; Dallas Baptist Univ., B.C.A.

**Salter, M. Jo** ..... Counselor  
Southwestern Univ., B.A.; East Texas State Univ., M.S.

**Sayers, Lew C.** ..... Developmental Writing  
Dartmouth College, B.A.; Reed College, M.A.T.

**Singleton, Emma** ..... Office Careers  
Texas Southern Univ., B.S., M.B.Ed.

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Ball State Univ., B.S., M.A.; Auburn Univ., Ed.D.

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East Texas State Univ., B.S., M.S. in L.S.

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**Smith, Tommy E.** ..... Physical Education  
North Texas State Univ., B.S., M.Ed.; Nova Univ., Ed.D.

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North Texas State Univ., B.S.

**Strain, Jimmie F.** ..... Government/History  
Univ. of Texas, Austin, B.S.; East Texas State Univ., M.A.;  
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**Stegall, Linda** ..... Vice President of Instruction  
North Texas State Univ., B.B.A., M.B.E., Ed.D.

**Stupp, Mary** ..... Philosophy/Psychology  
El Centro College, A.A.; North Texas State Univ., B.A.;  
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Texas Lutheran College, B.S.; Texas Tech Univ., M.A.

**Thompson, Darrell H.** ..... Mid-Management  
Sam Houston State Univ., B.B.A., M.B.A.

**Tipple, Karl** ..... Electronics  
Southern Methodist Univ., B.S., M.S.

**Walsh, John** ..... Machine Shop  
Studies: Univ. of Texas, Arlington; Univ. of Texas, Austin, Extension;  
Voc. Teaching Cert., Texas A&M Egr. Extension Voc., Teaching Cert.

**Washington, Billie** ..... Counselor  
Studies: Mountain View College, East Texas State Univ.

**White, Marjorie A.** ..... Chemistry  
Our Lady of the Lake College, B.A.; Univ. of Texas, Austin, M.A., Ph.D.

**Whitefield, Geneva** ..... Computer Science  
Univ. of Arkansas, B.S., B.A.; East Texas State Univ., M.B.A.

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Southern Methodist Univ., B.A., M.L.A.

**Williams, Pat R.** ..... Horology  
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**Willis, John A.** ..... Mid-Management  
Univ. of Arkansas, B.S.; North Texas State Univ., M.B.A.

**Wilson, William A.** ..... Counselor  
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Columbia Univ., M.A., Ed.D.

**Wilson, Rodney M.** ..... Theatre  
Northern Iowa Univ., B.A.; Kansas State Univ., M.A.

**Wolfe, David J.** ..... Journalism  
Southern Methodist Univ., B.A.; Univ. of California, Los Angeles, M.A.

# 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 per semester 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 wide 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 19 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 disability. 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 high 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 12 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 the Education Amendment of 1980, Public Law 96-374, the College provides all students with information about its academic programs and financial aid available to students.



## **Standard 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.

If you are unable to complete the course (or courses) for which you have registered, it is your responsibility to withdraw formally from the course (or courses). Failure to do so will result in your receiving a performance grade, usually a grade of "F".

## **II. IMPORTANT TERMS**

**Academic advisor:** A member of the college staff who assists students in planning appropriate academic programs.

**Add:** During any single semester, to enroll in additional course(s) after regular registration.

**Admission:** Formal application and acceptance as a credit student. A person wishing to enroll must complete an application, be accepted, and receive a letter of acceptance from the Registrar before registering.

**Audit:** Enrollment in a credit program in a course without receiving academic credit.

**Class Schedule:** The list of courses offered for a specific semester. Names of teachers, days, times, location, fees and registration instructions are included.

**Common Learning:** "General Education" as defined by the Dallas County Community College District. Common Learning courses contain learning experiences which provide knowledge and skills necessary for living well and functioning competently in rapidly changing local, state, national, and world communities.

**Concurrent enrollment:** (a) Enrollment by the same student in two different DCCCD colleges at the same time; (b) Enrollment by a high school senior in one of the DCCCD colleges while still enrolled in high school; (c) Enrollment by a student in two related courses in the same semester; (d) Enrollment in both a DCCCD institution and a four-year institution at the same time.

**Course load:** The number of hours or courses in which a student is enrolled in any given semester.

**Credit:** The numerical value assigned to a course (see "CREDIT HOURS/SEMESTER HOURS").

**Credit Hours/Semester Hours:** The unit of credit earned for course work. Each college course is worth a certain number of credit or semester hours. This number is determined by the type of class it is and the number of hours per week it meets. For example, a 3 credit hour class (English, History, etc.) meets 3 hours per week during the fall/spring semesters; a 4 credit hour class (science, languages, etc.) meets 6 hours. Check this catalog or class schedule for the value of any course you wish to take.

**Credit/non-credit:** Credit classes are those which award academic credit and apply toward a degree. Non-credit classes do neither and are usually offered through Continuing Education.

**Campus class schedule:** A booklet which is published prior to each semester listing all classes, sections, dates, times, instructors' names, and meeting places and which is used by students to prepare their personal class schedules each semester.

**Drop:** The act of officially withdrawing from a particular course without penalty before a specified date. See calendar in this catalog for "Last Day to Withdraw." It is the student's responsibility to drop a course by the date published.

**Early Registration:** A method of selecting and reserving courses for subsequent semesters. Consult with an advisor prior to going to early registration.

**Electives:** Courses which do not count toward major but are required for most college degrees. Electives are selected for personal interest, skill development or to increase one's knowledge or understanding. Consult with an advisor before deciding upon electives.

**Fee:** A charge which the college requires for services in addition to tuition charges.

**Flexible-entry course:** A course beginning and ending on dates which are different from the regular semester. This is also referred to as "flex-entry" or "short semester registration". Consult the campus class schedule for further information.

**Full-time student:** A student who is enrolled in at least 12 credit hours during a semester or for 6 credit hours during a summer session.

**GPA:** Grade Point Average. For further explanation, see catalog section entitled "Scholastic Standards."

**Grade Points:** See catalog section entitled "Scholastic Standards."

**Grades:** See catalog section entitled "Scholastic Standards."

**Lab hours:** The number of hours a student spends each week in a laboratory or other learning environment.

**Lecture hours:** The number of hours a student spends each week in a classroom other than a laboratory.

**Major:** The subject or field of study in which the student plans to specialize. For example, one "majors" in Automotive Technology, Business, etc.

**Part-time student:** A student who is enrolled for less than 12 credit hours during a semester or less than 6 credit hours in a summer session.

**Performance grade:** A grade of A, B, C, D, or F. This does not include the grades of W, I, or WX. See catalog section on "Academic Information" for more on grades and grade point averages.

**Prerequisite:** A requirement which must be met BEFORE enrolling for a specific course. For example, the prerequisite for ENGLISH 102 is the successful completion of ENGLISH 101. A prerequisite may be another course (high school or college), an appropriate assessment score, or by permission of the instructor.



**Probation:** A warning for a student whose academic work or behavior is unsatisfactory. Students on academic probation may be suspended if their academic performance does not improve.

**Registration:** The official process for enrolling in courses. This involves selecting classes with the help of an advisor, completing all registration forms and paying fees. Check the Class Schedule for registration dates.

**Section:** A number indicating day/evening, hour, room number, and name of instructor for a particular course. For example, the section number differentiates among the various classes of English 101.

**Semester:** A term denoting the length of time a student is enrolled in a specific course. For example, there are two long semesters (Fall and Spring) which last approximately 16 weeks. There are two summer sessions or "semesters" (Summer I and Summer II) which last approximately 5½ weeks.

**Skills for Living:** Skills needed for living well with one-self, others, and changing environments. Skills for Living are discussed and learned throughout the curriculum and provide basic goals for all Common Learning courses.

**Technical/occupational courses:** Courses which lead to a certificate or two-year degree in a technical or occupational program. These courses are designed to aid the student in developing entry-level skills to be utilized in the job market. Consult an advisor regarding the transferability if you plan to attend a four-year institution.

**Telecourses:** Courses providing flexibility and convenience for students seeking college credit with minimum campus visits. Students watch the course television programs at home on regular broadcasts or cablecasts, complete study guide and reading assignments, take tests on campus, and attend optional discussion meetings. Instructors are available during regular office hours or via telephone when assistance is needed.



**Transfer courses:** Courses which are designed to transfer to other colleges and universities. Students need to consult with an advisor or counselor about the transferability of specific courses. Because a course will transfer does not

mean it will apply toward a specific major or degree at a four-year college or university.

**Transcript:** An official copy of a student's academic record which can be obtained through the Admissions Office. An *official* transcript must have the seal of the college affixed and the signature of the Registrar.

**Withdrawal:** The act of terminating enrollment. A student withdrawing must go through a formal procedure. It is the student's responsibility to withdraw officially by the appropriate date. See the calendar in this catalog or the Class Schedule for the "Last Day to Withdraw."

### III. 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 admission.

#### Admission Requirements

Documentary evidence of Texas residency must be provided by all applicants. This evidence must be submitted with the application for admission and must prove twelve (12) months of Texas residency immediately prior to the semester of enrollment. Failure to provide evidence will result in an applicant being classified as a nonresident for tuition/fee purposes. Contact the Admissions Office for specific information detailing required documentation.

#### Beginning Freshman

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 six hours of special study each semester, as long as the combined high school and college class load does not exceed sixteen (16) semester hours. (Each high school course is normally counted as the equivalent of one three-hour course.) 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 the Office of Career and Continuing Education.

#### International Students

The College is authorized under federal law to enroll non-immigrant alien students. International students are not admitted, however, until all admissions requirements are complete. International students must:

- a. complete a personal interview with the international student counselor and receive approval from the college administration,
- b. present TOEFL (Test of English as a Foreign Language) test scores of 525 or higher and take the DCCCD assessment tests,

- c. be proficient in English and provide a letter in their own handwriting indicating educational and vocational plans,
  - d. show evidence of sufficient financial support for the academic year by submitting an I-134 (Affidavit of support) Immigration and Naturalization Service document,
  - e. provide written proof of negative tuberculin skin test or chest x-ray, polio immunization if applicant is under nineteen years of age, measles and rubella vaccines taken since January 1, 1968, and diphtheria/tetanus injections taken within the last ten years.
  - f. fulfill all admission requirements for international students at least 30 days prior to registration,
  - g. enroll as a full-time student (minimum of 12 credit hours),
  - h. supply official transcripts for all previous academic work with a minimum "C" average.
- Contact the Admissions Office for information.

### **Application and Admission Procedures**

Applications may be submitted any time prior to registration. Earlier application is desirable because the student's place in registration is determined by the date of the applicant's file; submitting admissions documents early also insures that there is adequate time for effective counseling and schedule planning. A later place in registration often means that the classes a student desires 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. Official Transcripts: The following must be submitted: (1) for beginning college students an official high school transcript from the last high school attended; (2) for college transfer students, official transcripts for all previous college work attempted. The college's accrediting agency requires transcripts, and the college uses them in program advisement.

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 the Flexible Entry Courses section in this catalog and contact the Registrar's Office for additional information.

Students entering with academic deficiencies or low assessment scores may be admitted on probation and may be required to enroll in developmental or other programs designated by the college.

### **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.

### **Special Fees And Charges**

Laboratory Fee: \$2 to \$8 a semester (per lab).

Class Fee: Variable special costs of course not otherwise defined as "Laboratory Fee." Rental costs of specialized equipment and off-campus facilities are examples of "class fees."

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. This fee can change without prior notice.

### **Refund Policy**

The refund policy of the District is based upon state regulations and on the fact that student tuition and fees provide only a fraction of the cost of offering educational opportunities. When students enroll in a class, they reserve places which cannot be made available to other students until they officially drop the class. In addition, the original enrollment of students represents a sizable cost to the District regardless of continuance in that class. Therefore, a refund is made only under the following conditions:

- (1) Official withdrawal:

Students who officially withdraw from the institution shall have their tuition and mandatory fees refunded according to the following schedule:



## TUITION AND STUDENT SERVICES FEE

### Fall and Spring Sessions

Semester Credit Hour	Dallas County			Out-of-District			Out-of-State or Country		
	Tuition	Fee	Total	Tuition	Fee	Total	Tuition	Fee	Total
1	\$ 32	\$ 3	\$ 35	\$ 32	\$ 3	\$ 35	\$ 200	\$ 3	\$ 203
2	32	3	35	62	3	65	200	3	203
3	32	3	35	93	3	96	200	3	203
4	40	4	44	124	4	128	236	4	240
5	50	5	55	155	5	160	295	5	300
6	60	6	66	186	6	192	354	6	360
7	70	7	77	217	7	224	413	7	420
8	80	8	88	248	8	256	472	8	480
9	90	9	99	279	9	288	531	9	540
10	100	10	110	310	10	320	590	10	600
11	108	11	119	320	11	331	649	11	660
12	116	12	128	330	12	342	708	12	720
13	124	12	136	340	12	352	767	12	779
14	132	12	144	350	12	362	826	12	838
15	140	12	152	360	12	372	885	12	897
16	148	12	160	370	12	382	944	12	956
17	156	12	168	380	12	392	1003	12	1015
18	164	12	176	390	12	402	1062	12	1074
19	172	12	184	400	12	412	1121	12	1133
20	180	12	192	410	12	422	1180	12	1192

## TUITION

### Summer Sessions

Semester Credit Hour	Dallas County		Out-of-District		Out-of-State or Country	
	Tuition		Tuition		Tuition	
1	\$ 32		\$ 44		\$200	
2	32		88		200	
3	36		132		200	
4	48		176		260	
5	60		220		325	
6	72		264		390	
7	78		272		448	
8	84		280		506	
9	90		288		564	

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.

The DCCCD Board of Trustees defines an out-of-district student as (1) a student eighteen (18) years of age or older who resides in a Texas county other than Dallas County or

(2) a student who is less than eighteen (18) years of age whose parents live in a Texas county other than Dallas County. In either case, state residency requirements must be fulfilled (see above).

An out-of-state student is one who has come to Texas from out-of-state within the 12-month period prior to registration. Anyone who enrolls as an out-of-state student is presumed to remain out-of-state as long as the residence of the individual in Texas is for the purpose of attending school. An individual who would have been classified as a resident for the first five of the six years immediately preceding registration, but who resided in another state for all or part of the year immediately preceding registration shall be classified as a resident student.

A foreign national on 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.

#### Fall and Spring Semesters

Prior to the first class day .....	100%
During the first five class days .....	80%
During the second five class days .....	70%
During the third five class days .....	50%
During the fourth five class days .....	25%
After the fourth five class days .....	NONE

#### Summer Semesters

Prior to the first class day .....	100%
During the first, second or third class day .....	80%
During the fourth, fifth or sixth class day .....	50%
After the sixth class day .....	NONE

#### (2) Official drop of a course or courses:

Students who reduce their semester credit hour load by officially dropping a course or courses and remain enrolled at the institution will have applicable tuition and fees refunded according to the following schedule:

##### Regular Session

During the first twelve class days .....	100%
After the twelfth class day .....	NONE

##### Summer Session

During the first four class days .....	100%
After the fourth class day .....	NONE

Separate refund schedules may be established for optional fees such as intercollegiate athletics, cultural entertainment, parking, yearbooks, etc.

Tuition and fees paid directly to the institution by a sponsor, donor, or scholarship shall be refunded to the source rather than directly to the student.

(3) A student dropping a portion of his class load after the twelfth class day of a fall or spring semester (fourth class day of a summer session) is not entitled to a refund unless approved by the Refund Petitions Committee.

(a) Refund petitions, accompanied by an explanation of any existing circumstances, shall be submitted to the Refund Petitions Committee on the campus.

(b) If the petition is approved by the committee, the student shall be notified and shall receive a refund of tuition and fees according to the appropriate schedules in this policy.

(4) The student must submit the request for refund before the end of the semester or summer session for which the refund is requested.

(5) Mandatory fees shall include, but not be limited to, student activity fees, laboratory fees, private lesson fees, and physical education activity fees.

(6) Flexible entry courses are to be handled as regular semester length courses. The refund schedule will be prorated accordingly.

(7) Refund checks normally require a minimum of one month from date of approval for processing.

(8) The college academic calendar shall specify the last day for withdrawal with refund.

#### 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. If a check for tuition is returned by the bank for any reason, including stop payment, the College Business Office may submit the check to the Justice of the Peace for appropriate legal action and collection. The Vice President of Student Development may also implement disciplinary procedures.

#### Assessment and Advisement Procedures

Assessment is the process of evaluating readiness for certain college courses and the probabilities for success in those courses. The College has an assessment process for entering students which is a required part of the enrollment process.

The assessment program includes the completion of a questionnaire which documents information on career and work plans, previous academic achievement and other relevant information. Assessment also includes an examination of individual skill levels in reading, writing and mathematics. Information on skills may come from ACT or SAT results, previous *college-level* work or from scores on the standardized tests administered free of charge by the College.

Because of the importance of such information, students should have official copies of ACT, and/or SAT scores and transcripts mailed to the Admissions Office or bring them personally at the time of application. It is the responsibility of the student to make these available.

The assessment program provides information needed in advisement. Academic advisement sessions provide a framework for informed decision-making on the part of students and advisors. Information on a student's skills, abilities, career plans, educational background, life experiences, and motivation is important in helping the student and advisor make selections from the many educational options available.

Details of assessment and advisement procedures are available through the College Counseling Center or in the "Schedule of Classes" each semester.

#### 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 attempted work at colleges and universities recognized by a national accrediting agency equivalent to the Southern Association Commission on Colleges. 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.

### 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.

## IV. ACADEMIC INFORMATION

### Scholastic Standards: Grades And Grade Point

#### Average

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

Grade	Interpretation	Grade Point Value
A	Excellent	4 points
B	Good	3 points
C	Average	2 points
D	Poor	1 point
F	Failing	0 points
I	Incomplete	Not Computed
WX	Progress; re-enrollment required	Not Computed
W	Withdrawn	Not Computed
CR	Credit	Not Computed

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:

Credit Hours	Grade	Grade Points
2-hour course	A	8
3-hour course	B	9
4-hour course	B	12
3-hour course	C	6
Total Credit Hours:		Total Grade Points:
12		35
$35 \div 12 = 2.93$		

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 90 days after the first day of classes in the subsequent regular semester. If the work is not completed after 90 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 reenroll 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 enrollment. If the student does not complete the course requirements, 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.

### 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 20 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 six credit hours. The recommended load limit in a six-week summer session is six credit hours. A total of 14 credit hours is the maximum that may be earned in any 12-week summer period.

### 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:

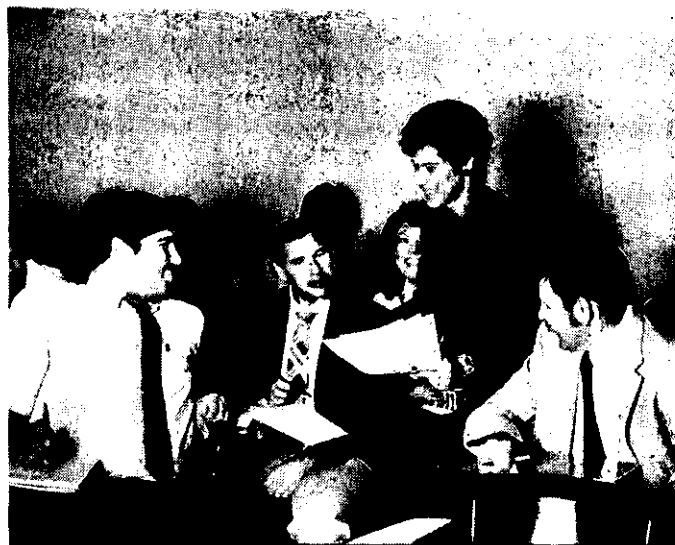
A student carrying 12 or more credit hours in a given semester.

### 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. If a student is unable to complete a course (or courses) in which he/she is registered, it is the student's responsibility to withdraw from the course by the appropriate date. (The date is published in the academic calendar each year.) If the student does not withdraw, he/she will receive a performance grade, usually a grade of "F."

Students who are absent from class for the observance of a religious holiday may take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later than the 15th day of the semester, the student notified the instructor(s) that the student would be absent for a religious holiday. Sec. 51.911 Tx. Educ. Code.







### **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. It is the student's responsibility to drop or withdraw. Failure to do so will result in receiving a performance grade, usually a grade of "F." 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. See "Refund Policy" for possible eligibility for a refund.

### **Academic Recognition**

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 six-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 sessions 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 Development.

### **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 DCCCD 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.")

### **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.

### **Degree Requirements**

The College confers the Associate in Arts and Sciences Degree upon students who have completed all general 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.

Students seeking certificates or associate degrees must submit official transcripts of all previous work attempted before a certificate or degree will be awarded. Failure to submit official transcripts directly from the institutions attended will result in the degree or certificate not being awarded.

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.

### **The Common Learning Curriculum**

The Common Learning curriculum is composed of required courses and clusters of courses designed to advance the learning which is common to all candidates for a degree.

The Core Curriculum consists of English 101, Speech Communication 101, and a math course numbered 100 or above. A grade of "C" or better in each of the three courses is required for graduation. Students are strongly advised to enroll in these courses in the first two semesters of study because skills necessary for success in other courses are taught in Core courses.

Common Learning course requirements beyond the Core are designed to help ensure that all graduates have general knowledge as well as the specific knowledge ordinarily associated with a major course of study or a technical program. Candidates for the Associate in Arts and Sciences must take 34-36 hours in approved Common Learning courses beyond the Core. Candidates for the Associate in Applied Arts and Sciences must choose six to eight hours of course work from two of the following clusters: Laboratory Science, Behavioral/ Social Science, Business, and Humanities.

### **Associate in Arts and Sciences Degree**

Students must have a minimum of 61 credit hours, a grade of "C" or better in each of the three Core courses, and a grade point average of at least "C" (2.0) to receive the Associate in Arts and Sciences Degree. These 61 hours may be earned at any District college and must include:

- English 101, Speech Communication 101, and a math course numbered 100 or above. (9 credit hours)
- English 102 and a sophomore literature course (6 credit hours)
- Laboratory Science (8 credit hours) chosen from Astronomy, Biology, Chemistry, Geology, Physics, Science, or Physics.

- Humanities (3 credit hours) to be chosen from Art 104, a foreign language, Humanities 101, Literature, Music 104, Philosophy 102, or Theatre 101.
- Physical Education activity course (1 credit hour).
- Behavioral Science (3 credit hours) to be chosen from Anthropology, Human Development, Psychology, or Sociology.
- History 101-102 (6 credit hours) and Government 201-202 (6 credit hours). Only three credit hours of history and three credit hours of government may be earned through credit by examination.
- Business (3 credit hours) to be chosen from Business, Accounting, Management, Computer Information Systems, or Economics. Cooperative Work Experience courses may not be used to meet Common Learning degree requirements.
- Electives (16-18 credit hours).

A maximum of four 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 Theatre 199 may not be counted toward the 61 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 years. 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**

Students must have a minimum of 60 credit hours, a grade of "C" or better in each of the three Core courses, and a grade point average of at least "C" (2.0) to receive the Associate in Applied Arts and Sciences Degree. These 60 hours must include:

- English 101 or Communications 131, Speech Communication 101, and a math course numbered 100 or above. (9 credit hours)
- Six to eight credit hours chosen from two of the following clusters:

*Laboratory Science:* Astronomy, Biology, Chemistry, Geology, Physical Science, or Physics.

*Behavioral/Social Science:* Anthropology, Government, History, Human Development, Psychology, or Sociology.

*Humanities:* Art 104, a foreign language, Humanities 101, Literature, Music 104, Philosophy 102, or Theatre 101.

*Business:* Business, Accounting, Management, Computer Information Systems, or Economics. Cooperative Work Experience courses may not be used to meet Common Learning degree requirements.

Where a technical/occupation program heavily emphasizes a specific cluster as part of its requirements, students are encouraged to select from other clusters to satisfy this requirement. For example, students pursuing an A.A.S. degree in accounting must enroll in many courses from the business cluster as part of their program

requirements. Therefore, to meet Common Learning requirements, the 6-8 additional hours should be selected from the other three clusters: Behavioral/Social Sciences, Humanities, or Laboratory Science.

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 the catalog for a more detailed explanation. A maximum of four physical education activity hours may be counted as credit toward graduation. Courses numbered 99 and below do not meet degree requirements. Music 199, Art 199, and Theatre 199 may not be counted toward the 60 hour minimum.

#### **Certificate Career Programs**

The requirements for certificates are detailed under specific programs in the Technical/Occupational Programs section of this catalog. A "C" (2.0) grade point average is required. Courses numbered 99 and below do not meet certificate requirements.

#### **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. December graduates may participate in the next commencement if they desire and July and August graduates may participate in the spring commencement if they desire, but neither is 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.

#### **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 should so state in writing to the Registrar prior to registration and should inform a counselor of such intentions during the pre-registration advisement session.

## V. EDUCATIONAL AND SPECIAL OPPORTUNITIES

### Academic Transfer Programs

Students who desire to earn a bachelor's degree may complete freshman and sophomore courses in the DCCCD before transferring to a four-year institution. The academic transfer curriculum is coordinated with four-year colleges and universities to aid the transfer of credits to these schools. Students must understand that each four-year institution establishes its own course requirements for its majors and degrees. Even in the same major, what one four-year institution requires may differ greatly from the requirements of another four-year institution. Students should consult with a DCCCD counselor or advisor and the four-year institution on a regular basis to insure enrollment in courses appropriate to the selected degree or program.

Below is a list of some majors which students can begin within the DCCCD. For specific majors and programs, students should consult with an advisor or counselor.

- Accounting
- Advertising
- Agriculture
- American Studies
- Anthropology
- Architecture
- Art
- Biochemistry
- Biological Sciences
- Botany
- Business Administration (including  
Accounting, Finance, Management,  
Marketing)
- Business Education
- Chemistry
- City and Regional Planning
- Communications
- Computer Science
- Dance
- Dentistry
- Dietetics
- Drama
- Economics
- Elementary Education
- Engineering
- English
- Entomology
- Fine Arts
- Dance
- Foreign Languages
- Forestry
- Geography
- Geology
- Finance
- Health Science

- History
- Home Economics
- Industrial Arts
- Industrial Design
- Journalism
- Law
- Liberal Arts
- Life Science
- Marine Biology
- Marketing
- Mathematics
- Medical Technology
- Medicine (Pre-Med)
- Meteorology
- Microbiology
- Music
- Natural Sciences
- Nursing
- Occupational Therapy
- Oceanography
- Optometry
- Pharmacy
- Philosophy
- Physical Education
- Physical Science
- Physical Therapy
- Physics
- Political Science
- Pre-Dental, Pre-Medical, Pre-Veterinary
- Psychology
- Public Relations
- Radio/Television/Film
- Recreation
- Sociology
- Speech Communications
- Speech Pathology and Audiology
- Theatre
- Telecommunications
- Theology
- Veterinary Medicine
- Urban Studies
- Wildlife Management
- Zoology

The fields of dentistry, law, medicine, optometry, pharmacy, veterinary medicine, and theology generally require graduate study. Students who plan eventually to get a graduate degree in one of these fields or areas should consult with a counselor or advisor about an appropriate undergraduate major.

Students are encouraged to consult counselors about the transfer information and resources which are available in the college counseling center. Counselors and advisors can assist students in interpreting information from university and college catalogs. The number of credit hours which are transferable will vary from institution to institution. Most colleges and universities will accept at least 60 hours in transfer. In addition, some colleges and universities may have specific grade point average requirements for transfer students. IT IS THE RESPONSIBILITY OF STUDENTS TO KNOW ANY SPECIFIC REQUIREMENT OF THE COLLEGE OR UNIVERSITY TO WHICH THEY WISH TO TRANSFER. THIS RESPONSIBILITY INCLUDES KNOWING COURSE REQUIREMENTS, NUMBER OF CREDIT HOURS ACCEPTED, AND GRADE POINT AVERAGE REQUIREMENTS.

### **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 programs offered by the College.

Technical/occupational courses are accredited college courses which lead to a Certificate of Completion or an Associate in Applied Arts and Sciences Degree. These programs are established only after studies verify that employment opportunities exist in business and industry.

The College attempts to match the community's labor requirements with the ambitions and goals of its students. This realistic approach to occupational education is made possible by the excellent cooperation of local industry, business, and public agencies who increasingly depend on District colleges to supply skilled personnel.

A continuous liaison is maintained with prospective employers to help place graduates and to keep the training programs current with job requirements. Recommendations for adding new programs to the College offerings are made periodically and are based on community studies which identify additional needs.

Many technical/occupational programs can be offered on company sites for their employees.

### **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 College's 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.

### **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 will evaluate these learning experiences and grant equivalent college credit according to the following guidelines:

1. The student must be currently enrolled in the college to receive equivalent credit for non-traditional learning.
2. Credit for specific courses offered by the college may be granted for non-traditional learning experiences after proper assessment of those experiences. Credit will be awarded on a course by course basis only. The student must be enrolled in the college which is assessing the learning experiences.
3. A student is required to complete at least 12 semester hours of course work with the District, six of which are in the student's major occupational area, 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 Coordinating Board of Colleges and Universities.
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.

### **High School Articulation**

The College has established a process for evaluating the work of high school vocational graduates to determine if a student can receive college credit for competencies mastered in the high school vocational program. Students should check with the College Dean of Career and Continuing Education or the Counseling Center for more information.

### **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 includes many transferable courses. Telecourses are noted in the course description section and in each





college class schedule. Content and credit for these courses are the same as for similar courses taken on campus.

Telecourses include the viewing of television programs on all Dallas County cable systems and on KERA/Channel 13, 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 computer science courses. These campus visits are scheduled for times convenient to the students. Field trips are required in some courses. Telecourses may be taken in conjunction with on-campus courses. Students may register for telecourses by mail or through the regular on-campus registration process.

### **Cooperative Work Experience**

Students may enrich their education by enrolling in cooperative education courses. Cooperative education is a method of instruction that offers the student the opportunity to earn college credit for the development and achievement of learning objectives which are accomplished through current on-the-job experience.

Work experience must be related to a field of study and an occupational goal. This work experience takes place at work training stations approved by the College. Employers must be willing to enter into training agreements with the College and the student/employee. The College will assist a student in seeking approvable employment, if needed.

To enroll in a cooperative education course, students must:

- have completed at least six semester hours in an occupational major or secure waiver of requirement from the instructor;
- be currently enrolled in a course related to the major area of study;
- be approved by the instructor.

Additional information regarding cooperative education may be secured from the Cooperative Education Office, the Division Office, or Counseling Office at each college. Technical/occupational programs which include cooperative education are indicated in this catalog.

### **International Studies**

Each year a number of selected programs combine learning experiences with foreign travel. Such study-travel is under the direct supervision of faculty, and college credit may be earned by students who successfully meet the learning objectives established for these courses. Most of these courses are offered during the summer, and a complete listing for 1987-88 can be secured from the District Office of Student and International Programs (746-2410).

In addition to the study-travel tours, semester-abroad opportunities are available in three locations: London, Rome, and Paris. Each of these has selected criteria for students for these 12-15 week experiences. Information on these programs can also be secured from the District Office of Student and International Programs.

### **Human Development Courses**

In human development courses, students can learn skills useful in everyday living to promote their personal growth. Much of the success and satisfaction in life is dependent on good interpersonal communication skills, making healthy adjustments to our changing society, and pursuing a satisfying career. The human development curriculum gives the student an opportunity to obtain and practice skills in these important areas.

These courses are taught by counselors and other qualified instructors. They offer academic credit which transfer 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.

Campuses also offer special topics courses relevant to life issues. In addition, Speech Communications 101, a course combining aspects of interpersonal communications and public speaking, is required for DCCCD associate degrees.

### **Developmental Studies**

Students whose assessment test scores indicate they are performing below college level skills will be advised to enroll in developmental courses.

Developmental courses are designed to provide instruction to students who want to improve their skills in order to be more successful in their personal, academic and career programs. Reading, writing and mathematics courses are offered in classroom settings with laboratory support. Students who attend class regularly and complete all their assignments should be able to improve their skills in these areas. Successful completion of these courses should provide prerequisite skills for college-level work.

### **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 professional specialists interested in teaching. To enroll in the evening and weekend courses, contact the Director of Admissions.

### **Learning Resources Center and Library Obligations**

The Learning Resources Center (LRC) supports the entire instructional program. The two major parts of the LRC are the library and the media and graphics departments.

The library 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 library helps students to learn in their own way and at their own speed. It provides books, slides, tapes, reference help, videotapes, 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.

The media and graphics part of the LRC supports the classroom instructional program and is responsible for all campus audio-visual equipment and non-print materials used in the classroom 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.

### **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.

### **Continuing Education Programs**

Continuing education classes expand the available opportunities for persons of all ages to participate in college programs. A wide spectrum of courses is offered to adults and children through each campus's Continuing Education Division. Continuing education programs are offered throughout the year to meet a variety of needs such as:

- Educational 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.

Continuing education 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 learning experience. This is accomplished through seminars, workshops, and institutes.

The type of course is determined by the nature of the material, instructional approach, and needs of the requesting individuals or organizations. Usually 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. Registration is simple, quick and easy; you may even want to register by phone.

Classes and activities are held on the campus of each College and in a variety of locations throughout the community. Most classes and activities are conducted on weekday evenings, but are also held on weekdays and weekends.

Although most continuing education 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 afforded continuing education students during the term in which they are registered. Scholarship money is available for specific vocationally oriented courses. To apply for this type of scholarship, please inquire at the Continuing Education Office.

### **Continuing Education Units (CEU's)**

Although no college credit is awarded for continuing education class participation, Continuing Education Units are transcribed for successful completion of most courses. One 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.

## **VI. STUDENT DEVELOPMENT**

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 Programs and Resources**

The Student Programs and Resources Office plans and presents programs and activities for the general campus population and the surrounding community. Programs often are coordinated with the various instructional divisions 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 programs is highly encouraged.

### **Counseling Center 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. 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 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. Referral sources to provide in-depth 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/Appraisal 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, required for appropriate class placement.
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 Disabled Students**

The Services for Disabled Students Office offers a variety of support services to enable disabled students to participate in the full range of college experiences. Services are arranged to fit the individual needs of the student and may include sign language interpreters; notetakers; tutors; mobility assistance; and loan of wheelchairs, audio tape recorders, talking calculators and audio texts (for those students with visual impairments or learning disabilities). Academic, career and personal counseling are also available. Disabled 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 Disabled Students Office or the Counseling Center.

### **Student Organizations**

Information about participation in any organization may be obtained through the Student Programs and Resources 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 Programs and Resources 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. Limited housing for DCCCD students may be available at Bishop College. Interested persons should contact the Vice President of Students at Bishop.

### **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.

## **VII. 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 Needs Analysis Forms of the College Scholarship Service take 8-10 weeks to process. Early application allows the Financial Aid Office to prepare 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.

For financial aid purposes T.V. courses are considered to be the same as correspondence courses by the federal government. Enrollment in T.V. courses may affect your financial aid award, therefore, please contact your financial aid office if you intend to enroll in any of these classes.

For eligibility in Federal Programs (Pell Grant, SEOG, College Work-Study and Guaranteed Student Loan), students must be enrolled in a degree or certificate program for at least six credit hours, the majority of which must be non-Developmental Studies. Students should check with the College Financial Aid Office.

### **Grants**

#### **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 8-10 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 all copies 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 six credit hours each semester. Students must apply each year.

#### **Supplemental Educational Opportunity Grant (SEOG)**

The SEOG program provides assistance for eligible undergraduate students who show exceptional financial need, are making satisfactory academic progress toward their educational goal and are enrolled for at least six credit hours. The maximum award for an academic year is \$4,000; however, the actual amount of the grant may be limited to less than this, depending on the availability of funds at the school, the student's family financial condition and other financial aid the student is receiving. Priority is given to students receiving Pell Grant. Students must apply each year for the SEOG.

#### **Texas Public Educational Grant (TPEG)**

The TPEG program is a state financial aid program to assist students attending state-supported colleges. To be eligible students must show financial need and be making satisfactory academic progress toward their educational goal. The actual amount of the grant will vary depending on the availability of funds at the school, the student's family financial condition and other financial aid the student is receiving. This grant is available to students enrolled in 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 six credit hours per semester, make satisfactory academic progress toward their educational goal, and have financial need. The maximum grant for an academic year is \$2,500; however, the actual amount of the grant award may be less depending on the availability of funds and the degree of financial need. Grants are awarded by eligibility on a first-come, first-served basis. Students must apply each year for the TPE-SSIG.

### **Scholarships**

#### **DCCCD Foundation Scholarships**

The DCCCD Foundation provides a sizeable scholarship program for students who attend one of the colleges of the DCCCD. These funds are made available through the colleges to deserving students who, also, meet additional criteria of the scholarship funds. Application forms for these Foundation scholarships are available in the Financial Aid Office at each college.

#### **Miscellaneous Scholarships**

Several of the colleges have a limited number of scholarships available as a result of gifts from individuals, private industry, and community organizations. Generally, the eligibility criteria is the same as noted for the DCCCD Foundation Scholarships, and application forms are available in the Financial Aid Office.

### **Loans**

#### **Guaranteed Student Loans (GSL):**

The Higher Education Act of 1965, as amended, provided for student loans from private commercial lending agencies such as banks, savings and loan associations, credit unions and insurance companies. To be eligible students must now have financial need, make satisfactory academic progress toward their educational goal, and be enrolled for at least six (6) credit hours. As an undergraduate, the student may borrow up to \$2,625 per year for the first two academic years and a maximum of \$17,250 for all years of undergraduate study. The actual loan amount may be limited to less than this, depending on the cost of attendance, other financial aid, and family financial condition.

The interest rate is set by Congress and is currently 8% for the first four years of repayment, rising to 10% in the fifth year. Borrowers do not pay interest until six months after ceasing at least half-time enrollment. The U.S. Dept. of Education pays the interest during the time the student is enrolled and during the grace period of six months following enrollment. Repayment begins six months after the student leaves school or drops to less than half-time enrollment. The minimum payment will be \$50 per month, and the loan must be repaid within 10 years.

Lenders may charge a 5% loan origination fee on each loan in addition to the insurance premium charged on the loan. These charges will be deducted from the proceeds of the loan.

The Higher Education Amendments of 1980 authorized PLUS loans to parents of dependent undergraduate students through the Guaranteed Student Loan Program, and now self-supporting undergraduate and graduate students are, also, eligible for the loan. The interest rate on PLUS loans may vary, because it is dependent on the Treasury bill rates. Parents must begin repaying the loan within 60 days after the loan is made. Self-supporting students, on the other hand, may defer repayment while enrolled in school on a full time basis.

The Financial Aid Office will be able to supply additional information on how to apply for the Guaranteed Student Loan. A new application must be submitted each year.

#### **Hinson-Hazelwood College Student Loan Program (HHCSLP)**

The Hinson-Hazelwood Loan is a state-funded Guaranteed Student Loan Program for students who are attending Texas colleges and are eligible to pay Texas resident tuition rates. The State of Texas further limits eligibility to U.S. citizens, nationals or permanent residents holding an I-151 or I-551 (Alien Registration Receipt Card) only. The Hinson-Hazelwood Loan is considered a loan of last resort. In addition to requiring financial need and at least half-time enrollment as criteria for eligibility, the student must be unable to obtain a Guaranteed Student Loan from any other source to be eligible for this loan. Up to \$2,625 per year for the first two academic years may be borrowed with a maximum of \$17,250 allowable for one's entire undergraduate study. A student's actual loan amount may be limited to less than this depending on the cost of attendance, other financial aid, and one's family financial condition. A 5% loan origination fee and an insurance premium on the student's life will be taken from the total amount of each loan. The interest rate, which is set by Congress, currently is 8% per year simple interest. No interest or payments are paid while the student is enrolled at least half-time or during the six-month grace period. The minimum payment is \$50 per month over a 5 to 10 year period depending on the total amount borrowed.

## Emergency Short-Term Loans

The colleges of the DCCCD have limited short-term loan funds available which have been established by individuals and organizations, including the DCCCD Foundation, to meet emergency needs of students. Loans are usually limited to the amount of tuition and fees or books and supplies and bear no interest. These loans must be repaid within the semester for which they are borrowed. A late fee of \$5 will be added for late payment. Delinquent loans are turned over to a collection agency for recovery, and the student must pay the entire cost of collection. Because there is heavy use of these short-term loan funds at registration, students should apply *before* registration if help from this program is needed.

## Employment

### College Work-Study Program (CWSP)

The College Work-Study Program provides part-time employment for students with financial need who are making satisfactory academic progress toward their educational goal and are enrolled for at least six credit hours. The wage rate is \$4.25 per hour and most students work 15 to 25 hours per week. You will be paid on the last working day of the month. The amount you can earn in a school year is determined by the amount of your financial need and other aid awarded as part of your financial aid package. The majority of the students are employed on campus; however, some off-campus employment is also available. Students must apply each year for College Work-Study.

### Student Assistants Employment Program (Non-Work-Study)

Part-time employment for students who do *not* have financial need is available on campus. The wage rate and the average hours worked per week are the same as the College-Work Study Program.

## Off-Campus Employment

Students who need help finding a job off-campus should apply at the Placement Office of the college they plan to attend. The wage rate varies with each job and financial need is not a requirement of employment.

## Tuition Exemption Programs

In addition to the grants, scholarships, employment and loan programs already mentioned, the State of Texas and DCCCD offer a number of exemptions from tuition and fee charges. These exemptions are often overlooked simply because of their unusual nature. They are not related to family income or "financial need," nor do they require completion of a regular financial aid application. Check with the Financial Aid Office for additional information on these tuition exemption programs and the criteria for eligibility.

## Vocational Rehabilitation

The Texas Rehabilitation Commission offers assistance for tuition and fees to students who are vocationally handicapped as a result of a physically or mentally disabling condition. This assistance is generally limited to students not receiving other types of aid. For information, contact Texas Rehabilitation Commission, 13612 Midway, Suite 530, Dallas, Texas 75234.

## Social Security Administration

The Social Security Administration has offered benefits to students who met its criteria. However, this program of educational benefits is being phased out so 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

## 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. 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.
2. A veteran student enrolled in television courses must be pursuing more on-campus credit hours than hours taken by television.
3. 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.
4. A veteran student must enroll in courses required for a degree program. Information on degree requirements may be obtained from the Registrar's Office.
5. A veteran student who withdraws 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 this catalog.

The above V.A. regulations are subject to change without notice. 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, must now be residents of Texas, and be ineligible for federal financial aid. Applications are available at the Financial Aid Office and will take a minimum of eight weeks to process. To apply, students must submit a Hazelwood Act application, a copy of their discharge papers and a Student Aid Report stating ineligibility to the Financial Aid Office.

#### **Academic Progress Requirements:**

Students who receive financial aid or V.A. benefits 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 Grade Point Average (GPA) Requirement:**

1. A student must maintain a 2.0 GPA for each semester or the combined summer sessions for which an award is approved.
2. A new applicant must have a cumulative 2.0 GPA on all credit hours earned from District colleges prior to the semester for which aid is requested.
3. A transfer student from a college outside the District must have a cumulative 2.0 GPA as evidenced by an academic transcript. If no academic transcript is available at the time of the award, aid may be awarded on a probationary basis for one semester only.

#### **Completion Requirement:**

1. A student enrolled full-time (12 credit hours or more) must complete a minimum of 9 credit hours for any semester or the combined summer sessions for which funding is received.
2. A student enrolled three-quarter time (9-11 credit hours) or half-time (6-8 credit hours) must complete a minimum of 6 credit hours for any semester or the combined summer sessions for which funding is received.

#### **Failure to Meet the Standards of Academic Progress:**

In these provisions, probation or suspension means financial aid probation or suspension, not academic probation or suspension.

1. Following the first semester in which the above standards of academic progress are not met, the student will be placed on probation for the duration of the next semester of funding.
2. A new applicant with less than a cumulative 2.0 GPA will not have met the standards of academic progress; however, financial aid may be awarded on a probationary basis for one semester only.
3. The student who fails to meet the standards of academic progress during the semester of attendance while on probation will be placed on suspension and denied further funding for one semester or combined summer session.
4. During the first period of suspension, the student must enroll at least half-time for one semester at a District college, pay the expenses related to that enrollment and maintain the standards of academic progress before eligibility for financial aid will be reestablished.

5. If failure to meet satisfactory progress results in a second suspension from financial aid, the student must enroll at least half-time for the equivalent of two semesters at a District college, pay the expenses related to that enrollment and maintain the standards of academic progress before eligibility for financial aid will be reestablished.
6. Following any period of suspension, the student will again be eligible for funding on a probationary basis for one semester or combined summer session.
7. If failure to meet satisfactory progress results in a third suspension from financial aid, no additional aid will be awarded.
8. The colleges of the District shall enforce probation or suspension status of any student who transfers from one college to another within the District.

#### **Notification:**

A student who is placed on probation or suspension will be notified in writing of the student's status.

#### **Incremental Measurement of Progress:**

Academic progress of recipients will be measured three times a year following the Fall and Spring semesters and Summer II session for the entire summer enrollment.

#### **Maximum Time Period for Completion of Educational Objective:**

1. Each student receiving financial aid funds will be expected to complete their educational objective or course of study within a reasonable period of time. The maximum hour limit for the District is 75 credit hours.
2. Funding beyond the maximum hour limit may be approved due to mitigating circumstances by the Director of Financial Aid.

#### **Appeal Process**

1. A student, who has been denied financial aid because of a failure to meet any of the criteria of the standards of academic progress, may petition the Director of Financial Aid to consider mitigating circumstances.
2. A student who has been denied financial aid may make written appeal of the Financial Aid Director's decision to the Vice President of Student Development. The President of the College shall be the final appeal authority.

#### **Effects on Funding:**

1. Certain courses not considered for funding are:
  - a. course taken by audit; and
  - b. courses taken outside the degree plan; however, developmental courses, if required as a prerequisite to enable a student to successfully complete a student's educational goal, will be considered for funding.
2. Credit hours earned by a placement test will not be considered for funding.
3. Courses for which an "I" (incomplete), "WX" or "W" (withdrawal) grade is received will not be treated as completed courses.
4. Repeated courses will be considered for funding.

**Selective Service**

Students who are born after December 31, 1959, and who are required under the Military Selective Service Act to register for the draft must do so before financial aid can be approved. All students who apply for financial aid must sign a Registration Compliance Statement giving their selective service registration status before financial aid can be awarded.

**Verification Requirements**

Verification may be required and documentation requested for income, dependency status, number in household; number in post-secondary school, untaxed income and other selected items reported by you on your financial application. This process is a federal requirement for selected students and optional for others by determination of the student aid officer.

# VIII. DALLAS COUNTY COMMUNITY COLLEGE DISTRICT STUDENT RIGHTS AND RESPONSIBILITIES

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## 1. General Provisions

### 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 fast-changing region, state, nation and world. The District's primary concern is the student, each college attempts to provide an environment which views students in a holistic manner 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. Free inquiry and expression are essential parts of this freedom to learn and of room for growth and development. However, this environment also demands appropriate opportunities and conditions in the classroom, on the campus and, indeed, in the larger community. Students must exercise these freedoms with responsibility.

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 this statement is to enumerate the essential provisions for student freedom to learn and grow and the responsibilities which go with these liberties 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 to the College in disciplinary proceedings.
- (2) The College has jurisdiction for disciplinary purposes over a person who was a student at the time he allegedly violated a board policy, college regulation, 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 semester or summer session final examinations are given;
- (2) "Vice President of Student Development" means the Vice President of Student Development, his delegate(s) or his representative(s);
- (3) "Director of Student Programs" means the Director of Student Programs, 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 enrolled 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 chairman of the College for the purposes of this code shall be called "administrators";
- (8) "Complaint" is a written summary of the essential facts constituting a violation of a board policy, college regulation or administrative rule;
- (9) "Board" means the Board of Trustees, Dallas County Community College District;
- (10) "Chancellor" means the Chancellor of the Dallas County Community College District;
- (11) "Major violation" means one which can result in suspension or expulsion from the college or denial of degree;
- (12) "Minor violation" means one which can result in any disciplinary action other than suspension or expulsion from the College or denial of degree.

## 2. 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 be fully acquainted with all published policies, 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 Development and Student Programs. 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 federal, state and local laws. This principle extends to conduct off campus which is likely to have an adverse effect on the College or on the educational process.

## 3. Campus Regulations

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

- (1) Not to violate any municipal, state, or federal laws, and
- (2) Not to interfere with or disrupt the orderly educational processes of any college of the Dallas County Community College District.

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

**b. Enumerated Standards:** The succeeding regulations describe offenses for which disciplinary proceedings may be initiated, but the College expects from its students a higher standard of conduct than the minimum required to avoid discipline. The College expects all students to obey the law, to show respect for properly constituted authority, to perform contractual obligations, to maintain absolute integrity and a high standard of individual honor in scholastic work, and to observe standards of conduct appropriate for a community of scholars. In short, a student enrolled in the College assumes an obligation to conduct himself in a manner compatible with the College's function as an educational institution.

### (1) Student Identification:

**a. Issuance and Use:** I.D. cards will be distributed during the first week of school and will be required for the following events and services; library usage, concerts, lectures, campus movies, use of student center facilities; voting in campus elections, and tickets for campus and community events. All I.D. cards are the property of the College and must be shown on request of a representative of the College. Students are required to be in possession of their I.D. cards at all times and are prohibited from loaning their I.D. cards to any other person for any reason. Likewise, it is prohibited to use any other card except the one issued by the College.

**b. Replacement Cards:** If lost, duplicate I.D. cards may be obtained in the Business Office by payment of a \$4.00 charge.

### (2) Use of District Facilities:

Each college of the Dallas County Community College District is a public facility entrusted to the Board of Trustees and college officials for the purpose of conducting the process of education. Activities which appear to be compatible with this purpose are approved through a procedure maintained in the Student Programs Office. Activities which appear to be incompatible or in opposition to the purposes of education are normally disapproved. It is imperative that a decision be made prior to an event in order to fulfill the trust of the public. No public facility could be turned over to the indiscriminate use of anyone for a platform or forum to promote random causes. These reasonable controls are exercised by college officials for the use of facilities to ensure the maximum use of the College for the purpose for which it was intended.

Therefore, anyone planning an activity at one of the colleges of the Dallas County Community College District which requires space to handle two or more persons to conduct an activity must have prior approval. Application forms to reserve space must be acquired through the Student Programs Office. This office also maintains a statement on procedures for reserving space.

### (3) Speech and Advocacy:

Students have the right of free expression and advocacy; however, the time, place, and manner of exercising speech and advocacy shall be regulated in such a manner to ensure an orderly conduct, non-interference with college functions or activities, and identification of sponsoring groups or individuals. Meetings must be registered with the Student Programs Office. An activity may be called a meeting when the following conditions prevail at the activity:

- (a) When two or more persons are sitting, standing, or lounging so as to hear or see a presentation or discussion of a person or a group of persons.

(b) When any special effort to recruit an audience has preceeded the beginning of discussions or presentations.

(c) When a person or group of persons appears to be conducting a systematic discussion or presentation on a definable topic.

**(4) Disruptive Activities:** Any activity which interrupts the scheduled activities or processes of education may be classified as disruptive; thus, anyone who initiates in any way any gathering leading to disruptive activity will be violating college regulations and/or state law.

The following conditions shall normally be sufficient to classify behavior as disruptive:

(a) Blocking or in any other way interfering with access to any facility of the College.

(b) Inciting others to violence and/or participating in violent behavior, e.g., assault; loud or vulgar language spoken publicly; or any form of behavior acted out for the purpose of inciting and influencing others.

(c) Holding rallies, demonstrations, or any other form of public gathering without prior approval of the College.

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

Furthermore, the Vice President of Student Development shall enforce the provisions of the Texas education Code, Section 4.30 (following)

**Education Code Section 4.30 provides:**

(a) 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 private or public school or institution of higher education or public vocation and technical school or institute.

(b) 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) Seizing control of any building or portion of a building for the purpose of interfering with any administrative, educational, research, or other authorized activity;

(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) Disrupting by force or violence or the threat of force or violence a lawful assembly in progress; or

(5) Obstructing or restraining the passage of any person at an exit or entrance to said campus or property or preventing or attempting to prevent by force or violence or by threats thereof the ingress or egress of any person to or from said property of campus without the authorization of the administration of the school.

(c) For the purpose of this section, a lawful assembly is disrupted when any person 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.

(d) A person who violates any provision of this section is guilty of a misdemeanor and upon conviction is punishable by a fine not to exceed \$200 or by confinement in jail for not less than 10 days nor more than six months, or both.

(e) Any person who is convicted the third time of violating this section shall not thereafter be eligible to attend any school, college, or university receiving funds from the State of Texas for a period of two years from such third conviction.

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

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

**(6) Drugs:** Each college of the Dallas County Community College District specifically forbids the illegal possession, use, sale or purchase of drugs, narcotics, or hallucinogens on or off campus.

**(7) Gambling:** State law expressly forbids gambling of any kind on state property.

**(8) Hazing:** Each college of the Dallas County Community College District, as a matter of principle and because it is a 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 imperil the physical well-being of any student (all walks and all calisthenics are held to be actions which seriously imperil the physical well-being of students and are, therefore, accordingly specifically prohibited).

(b) Activities which are by nature indecent, degrading, or morally offensive.

(c) Activities which by their nature may reasonably be assumed to have a degrading effect upon the mental or moral attitude of the persons participating therein.

The institutional policy is one discouraging all activities incompatible with the dignity of the college student and exercising disciplinary correction over such activities as escape from reasonable control, regulation, and decency. From the institution's point of view, the reasonability for the control of hazing activities, if engaged in by an 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 accordingly recommended 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 unreasonable, immoral, and irresponsible within the policy limits detailed above. Individual activity falling in this category shall be disciplinary action.

**(9) Academic Dishonesty**

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

(b) "Academic dishonesty" includes, but is not limited to, cheating on a test, plagiarism and collusion.

(c) "Cheating on a test" includes:

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

(ii) Using, during a test, materials not authorized by the person giving the test;

(iii) Collaborating with another student during a test without authority;

(iv) Knowingly using, buying, selling, stealing, transporting or soliciting in whole or part the contents of an unadministered test;

(v) Substituting for another student, or permitting another student to substitute for one's self, to take a test; and

(vi) Bribing another person to obtain an unadministered test or information about an unadministered test.

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

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

**(10) Financial Transactions with the College**

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

(b) No student may give the College a check, draft or order with intent to defraud the College.

(c) A student's failure to pay the College the amount due on a check, draft, or order, on or before the fifth class after the day the Business Office sends written notice that the drawee has rightfully refused payment on the check, draft or order, is prima facie evidence that the student intended to defraud the College.

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

**(11) Other Offenses**

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

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

(ii) Damages, defaces or destroys college property or property of a member of the college community or campus visitor;

(iii) Knowingly gives false information in response to requests from the College;

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

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

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

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

(viii) Conducts himself in a manner which adversely affects his suitability as a member of the academic community or endangers his own safety or the safety of others;

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

(x) Commits any act which is classified as an indictable offense under either state or federal law.

**4. Disciplinary Proceedings**

**a. Administrative Disposition**

**(1) Investigation, Conference and Complaint**

(a) When the Vice President of Student Development Office receives information that a student has allegedly violated a board policy, college regulation, or administrative rule, the Vice President or a subordinate delegated by him shall investigate the alleged violation. After completing the preliminary investigation, the Vice President may:

(i) Dismiss the allegations as unfounded, either before or after conferring with the student; or

(ii) Proceed administratively and impose disciplinary action; or

(iii) Prepare a complaint based on the allegation for use in disciplinary hearings along with a list of witnesses and documentary evidence supporting the allegation.

(b) The President may take immediate interim disciplinary action, suspend the right of a student to be present on the campus and to attend classes, or otherwise alter the status of a student for violation of a board policy, college regulation, or administrative rule, when in the opinion of such official the interest of the College would best be served by such action.

(c) No person shall search a student's personal possessions for the purpose of enforcing this code unless the individual's prior permission has been obtained. Searches by law enforcement officers of such possessions shall be only as authorized by law.

**(2) Summons**

(a) A student may be summoned to appear in connection with an alleged violation by sending him a letter by certified mail, return receipt



requested, addressed to the student at his address appearing in the Registrar's Office records. It is the student's responsibility to immediately notify the Registrar's Office of any change of address.

- (b) The letter shall direct the student to appear at a specified time and place not less than three class days after the date of the letter. The letter shall also describe briefly the alleged violation and shall state the Vice President of Student Development's intention to handle the allegation as a minor or major violation.
- (c) The Vice President of Student Development may place on disciplinary probation a student who fails without good cause to comply with a letter of summons, or the Vice President may proceed against the student as stated below in the sections of **Disposition** and **Penalties**.

### (3) Disposition

- (a) At a conference with a student in connection with an alleged minor or major violation, the Vice President shall advise the student of his rights.
- (b) A student may refuse administrative disposition of the alleged violation and, on refusal, is entitled to a hearing. If a student accepts administrative disposition, he shall sign a statement that he understands the nature of the charges, his right to a hearing. If a student accepts administrative disposition, he shall sign a statement that he understands the nature of the charges, his right to a hearing or to waive the same, the penalty imposed, and his waiver of the right of appeal.
- (c) The Vice President of Student Development shall prepare an accurate, written summary of each administrative disposition and forward a copy to the student (and, if the student is a minor, to the parent or guardian of the student), to the Director of Student Programs and to the Director of Campus Security.
- (d) The Vice President of Student Development may impose disciplinary action as follows:
  - (i) For minor violations, any action authorized by this code in the section on **Penalties** (from 1-8, i.e. Admonition through Suspension of eligibility).
  - (ii) For major violations, any action authorized by this code in the section on **Penalties** (from 1-11, i.e. Admonition through Expulsion).

## b. Student Discipline Committee

### (1) Composition; Organization

- (a) When a student refuses administrative disposition of either a major or a minor violation, he is entitled to a hearing before the Student Discipline Committee. This request must be made in writing on or before the sixth working day following administrative disposition. The committee shall be composed of equal numbers of students, administrators and faculty of the College. The committee shall be appointed by the president for each hearing on a rotating basis or on a basis of availability.
- (b) The Student Discipline Committee shall elect a chairman from the appointed members. The chairman of the committee shall rule on the admissibility of evidence, motions, and objections to procedure, but a majority of the committee members may override the chairman's ruling. All members of the committee are eligible to vote in the hearing.
- (c) The chairman shall set the date, time, and place for the hearing and may summon witnesses, and require the production of documentary and other evidence.
- (d) The Vice President of Student Development shall represent the College before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Vice President of Student Development may be assisted by legal counsel when in the opinion of the Vice President of Student Development the best interests of the student or the College would be served by such assistance.

### (2) Notice

- (a) The committee chairman shall by letter notify the student concerned of the date, time and place for the hearing. The letter shall specify a hearing date not less than three (3) nor more than ten (10) class days after the date of the letter. If the student is under 18 years of age, a copy of the letter shall be sent to the parents or guardian.
- (b) The chairman may for good cause postpone the hearing so long as all interested parties are notified of the new hearing date, time and place.
- (c) 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 designated representative in his absence, states in writing to the committee that, because of extra-ordinary circumstances the requirements are inappropriate.
- (d) The notice shall specify whether the charge or charges are considered minor violations or major violations, shall direct the student to appear before the committee on the date and at the time and place specified, and shall advise the student of the following rights:
  - (i) To a private hearing;
  - (ii) To appear alone or with legal counsel (if charges have been evaluated as a major violation or if the College is represented by legal counsel);
  - (iii) To have his parents or legal guardian present at the hearing;
  - (iv) To know the identity of each witness who will testify against him;
  - (v) To cause the committee to summon witnesses, require the production of documentary and other evidence possessed by the

College, and to offer evidence and argue in his own behalf;

- (vi) To cross-examine each witness who testifies against him;
- (vii) To have a stenographer 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;
- (viii) To appeal to the Faculty-Student Board of Review, subject to the limitations established by the **Faculty-Student Board of Review** section.
- (e) The Vice President of Student Development may suspend a student who fails without good cause to comply with a letter sent under this section, or, at his discretion, the Vice President of Student Development may proceed with the hearing in the student's absence.

### (3) Preliminary Matters

- (a) Charges arising out of a single transaction or occurrence, against one or more students, may be heard together or, either at the option of the committee or upon request by one of the students-in-interest, separate hearings may be held.
- (b) At least three (3) class 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 which he wants produced;
  - (ii) An objection that, if sustained by the chairman of the Student Discipline Committee, would prevent the hearing;
  - (iii) The name of the legal counsel, if any, who appear with him;
  - (iv) A request for a separate hearing, if any, and the grounds for such a request.
- (c) When the hearing is set under waiver of notice or for other good cause determined by the committee chairman, the student concerned is entitled to furnish the information described in paragraph (b) hereof at any time before the hearing begins.

### (4) Procedure

- (a) The hearing shall be informal and the chairman shall provide reasonable opportunities for witnesses to be heard. The College may be represented by staff members of the Vice President of Student Development's Office, legal counsel and other persons designated by the President. The hearing shall be open to the public so long as space is available, but may include the following persons on the invitation of the student:
  - (i) Representatives of the College Council;
  - (ii) A staff member of the college newspaper;
  - (iii) Representatives of the Faculty Association;
  - (iv) Student's legal counsel, and
  - (v) Members of the student's immediate family.
- (b) The committee shall proceed generally as follows during the hearing:
  - (i) The Vice President of Student Development shall read the complaint;
  - (ii) The Vice President of Student Development shall inform the student of his rights, as stated in the notice of hearing;
  - (iii) The Vice President of Student Development shall present the College's case;
  - (iv) The student may present his defense;
  - (v) The Vice President of Student Development and the student may present rebuttal evidence and argument;
  - (vi) The committee will vote the issue of whether or not there has been a violation of board policy, college regulation or administrative rule; if the committee finds the student has violated a board policy, college regulation or administrative rule, the committee will determine an appropriate penalty.
  - (vii) The committee shall inform the student of the decision and penalty, if any;
  - (viii) The committee shall state in writing each finding of a violation of board policy, college regulation or administrative rule, and the penalty determined. Each committee member concurring in the finding and penalty shall sign the statement. The committee may include in the statement its reasons for the finding and penalty.

### (5) Evidence

- (a) Legal rules of evidence shall not apply to hearings before the Student Discipline Committee, and the committee may admit and give probative effect to evidence that possesses probative value and is commonly accepted by reasonable men in the conduct of their affairs. The committee shall exclude irrelevant, immaterial and unduly repetitious evidence. 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 Development where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff member and the student to be confidential. Committee members may freely question witnesses.
- (b) The committee shall presume a student innocent of the alleged violation until it is convinced by clear and convincing evidence that the student violated a Board policy, college regulation or administrative rule.
- (c) 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 extracts, or by incorporation by reference. Real evidence may be photographed or described.

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

#### **(6) Record**

(a) The hearing record shall include: a copy of the notice of hearing; all documentary and other evidence offered or admitted in evidence; written motions, pleas, and any other materials considered by the committee; and the committee's decisions.

(b) If notice of appeal is timely given as hereinafter provided, the Vice President of Student Development, 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.

### **b. Faculty-Student Board of Review**

#### **(1) Right to Appeal**

(a) In those cases in which the disciplinary penalty imposed was as prescribed in the section on **Penalties**, (6) Restitution through (11) Expulsion, the student may appeal the decision of the Student Discipline Committee, or the decision of the President in an interim action to the Faculty-Student Board of Review. Disciplinary actions taken under the section on **Penalties**, (1) Admonition through (5) Bar against readmission, cannot be appealed beyond the Student Discipline Committee. A student appeals by giving written notice to the Vice President of Student Development on or before the third class day after the day the decision or action is announced. This notice may be informal, but shall contain the student's name, the date of the decision or action, the name of his legal counsel, if any, and a simple request for appeal.

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

#### **(2) Board Composition**

(a) The President shall appoint Boards of Review to hear appeals under this code. Each such board shall have three faculty representatives and two students appointed by the President in alphabetical rotation from available members of the review panel.

(b) The review panel shall have twenty-five (25) members, selected as follows:

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

(ii) Ten (10) students shall be appointed by the President of the College for one-year terms. Student members must have an overall 2.0 average on all college work attempted at the time of the nomination and must not have a discipline case pending.

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

#### **(3) Consideration of Appeal**

(a) The Board of Review shall consider each appeal on the record of the Student Discipline Committee and for the good cause shown, original evidence and newly discovered evidence may be presented.

(b) Upon timely appeal, the President shall select a Board of Review as aforesaid and shall notify the student appellant and the Vice President of Student Development in writing of the time, date, and place of the hearing as determined by the President.

(c) The President will designate one of the members of the Board of Review to serve as chairman.

(d) Appellate hearings will follow the procedure prescribed in this code.

(e) The Board of Review will hear oral argument and receive written briefs from the student appellant and Vice President of Student Development or their representatives.

(f) The Board of Review, after considering the appeal, may affirm the Student Discipline Committee's decision, reduce the penalty determined or otherwise modify the decision of the Student Discipline Committee, or dismiss the complaint.

(g) The Board of Review shall modify or set aside the findings of violation, penalty or both, if the substantive rights of the student were prejudiced because the Student Discipline Committee's finding of facts, conclusions or decisions were:

(i) In violation of a federal or state law, board policy, college regulation, administrative rule, or authorized procedure.

(ii) Clearly erroneous in view of the reliable probative and substantial evidence on the complete hearing; or

(iii) Capricious, or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

(h) The Board of Review may not increase a penalty assessed by the Student Discipline Committee.

#### **(4) Petition for Administrative Review**

(a) A student is entitled to appeal in writing to the Board of Trustees through the President, the Chancellor, and the Chairman of the Board. The President shall automatically review every penalty of expulsion.

(b) A petition for review is informal but shall contain, in addition to the information required, notice of appeal, the date of the Board of Review's action on the student's appeal and his reasons for disagreeing with the board's action. A student shall file his petition with the President on or before the third class day after the day the Board of Review announces its action on the appeal. If the President rejects the petition, and the student appellant wishes to petition the Chancellor,

he shall file the petition with the Chancellor on or before the third class day after the President rejects the petition in writing.

(c) If the Chancellor rejects the petition, and the student appellant wishes to petition the Board of Trustees, he shall file the petition with the Chairman of said Board on or before the third class day after the day after the Chancellor rejects the petition in writing.

(d) The President, the Chancellor, and the Board of Trustees in their review may take any action that the Student Discipline Committee is authorized to take. They may receive written briefs and hear oral argument during their review.

### **5. Penalties**

#### **a. Authorized Disciplinary Penalties:**

The Vice President of Student Development, the Student Discipline Committee, or the Faculty-Student Board of Review may impose one or more of the following penalties for violation of a board policy, college regulation, or administrative rule:

- (1) Admonition
- (2) Warning probation
- (3) Disciplinary probation
- (4) Withholding of transcript or degree
- (5) Bar against readmission
- (6) Restitution
- (7) Suspension of rights or privileges
- (8) Suspension of eligibility for official athletic and non-athletic extracurricular activities
- (9) Denial of degree
- (10) Suspension from the College
- (11) Expulsion from the College

#### **b. Definitions:**

The following definitions apply to the penalties provided above:

(1) An "Admonition" is a written reprimand from the Vice President of Student Development to the student on whom it is imposed.

(2) "Warning probation" indicates that further violations may result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires.

(3) "Disciplinary probation" indicates that further violations may result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires. Students may be placed on disciplinary probation for engaging in activities such as the following, being intoxicated, misuse of I.D. card, creating a disturbance in or on campus facilities, and gambling.

(4) "Withholding of transcript of degree" is imposed upon a student who fails to pay a debt owed the College or who has a disciplinary case pending final disposition. The penalty terminates on payment of the debt or final disposition of the case.

(5) "Bar against readmission" is imposed on a student who has left the College on enforced withdrawal for disciplinary reasons.

(6) "Restitution" is reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.

(7) "Disciplinary suspension" may be either or both of the following:

(a) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions to fit the particular case.

(b) Suspension of eligibility for official athletic and non-athletic extracurricular activities: prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization; taking part in a registered student organization's activities, or attending its meetings or functions; and from participating in an official athletic or non-athletic extracurricular activity. Such suspension may be imposed for any length of time up to one calendar year. Students may be placed on disciplinary suspension for engaging in activities such as the following: having intoxicating beverages in any college facility; destroying state property or student's personal property; giving false information in response to requests from the College; instigating a disturbance or riot; stealing; possession, use, sale or purchase of illegal drugs on or off campus; any attempt at bodily harm, which includes taking an overdose of pills or any other act where emergency medical attention is required; and conviction of any act which is classified as a misdemeanor or felony under state or federal law.

(8) "Denial of degree" may be imposed on a student found guilty of scholastic dishonesty and may be imposed for any length of time up to and including permanent denial.

(9) "Suspension from the College" prohibits, during the period of suspension, the student on whom it is imposed from being initiated into an honorary or service organization; from entering the college campus except in response to an official summons; and from registering, either for credit or for non-credit, for scholastic work at or through the College.

(10) "Expulsion" is permanent severance from the College. This policy shall apply uniformly to all of the colleges of the Dallas County Community College District.

In the event any portion of this policy conflicts with the state law of Texas, the state law shall be followed.

### **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
- (4) Parking in "No Parking" zone
- (5) Parking on courtyards

**c. General Information**

- (1) College parking areas are regulated by state, municipal and campus statutes. College campus officers are commissioned to cite violators.
- (2) All vehicles which park on the campus of the College must bear a parking decal emblem. The parking decal may be secured from the College Security Division or during fall and spring registration periods. No fee is charged for the decal.
- (3) Placement of decal emblem:
  - (a) Cars: lower left corner of rear bumper.
  - (b) Motorcycles, motor bikes, etc.: gas tank
- (4) Campus Speed Limits:
  - (a) 10 M.P.H. in parking areas
  - (b) 20 M.P.M. elsewhere on campus.

\*Unless otherwise posted.
- (5) All handicapped parking must be authorized and handicapped decal displayed on vehicle prior to parking in handicapped reserved areas.

**d. Campus Parking and Driving Regulations**

- (1) The colleges, acting by and through their Board of Trustees are authorized by state law to promulgate, adopt and enforce campus parking and driving regulations. Campus officers are commissioned police officers, and as such, all traffic and criminal violations are within their jurisdiction.
- (2) The College has authority for the issuance and use of suitable vehicle identification insignia as permits to park and drive on campus. Permits may be suspended for the violation of campus parking and driving regulations.
- (3) The College campus officers have the authority to issue the traffic tickets and summons of type now used by the Texas Highway Patrol. It is the general policy to issue these tickets for violations by visitors and persons holding no college permit. These tickets are returnable to the Justice of Peace Court in which the college is located. Furthermore, the campus officers are authorized to issue campus citations which are returnable to the Department of Safety and Security at the Business Office.
- (4) Under the direction of the College President, the Department of Safety and Security shall post proper traffic and parking signs.
- (5) Each student shall file an application for a parking permit with the Security Office upon forms prescribed by the College.
- (6) These traffic regulations apply not only to automobiles but to motor bikes, motorcycles and ordinary bicycles.

**e. Procedures**

- (1) All motor vehicles must be parked in the parking lots between the parking lines. Parking in all other areas, such as campus drives, curb areas, courtyards, and loading zones, will be cited.
- (2) Citations may be issued for:
  - (a) Speeding (the campus speed limit is 20 M.P.H. except where posted)
  - (b) Reckless driving
  - (c) Double parking
  - (d) Driving wrong way in one-way lane
  - (e) 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
- (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 a 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 driving and parking privileges.
- (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 total commences on August 1, of each year. A fee may be assessed for unauthorized parking in an area designated for handicapped persons. (Not to exceed \$200).
- (9) The College is not responsible for the theft of vehicles on campus or their contents.

**Student Grievance Procedure**

A copy of the Student Grievance Procedure designed to provide students with the opportunity to question conditions which the student believes impede his/her education or instruction is available in the office of the Vice President of Student Development.

# DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

## 1987-88 Technical/Occupational Programs Offered On Our Campuses

### Career Education Programs

	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Accounting Associate	•	•	•	•	•	•	•
Advertising Art	•						
Air Conditioning & Refrigeration-Residential		•	•			•	
Air Conditioning & Refrigeration Technology			•				
Animal Medical Technology		•					
Apparel Design				•			
Architectural Technology				•			
Architectural Drafting				•			
Associate Degree Nursing	•			•			
Associate Degree Nursing-LVN				•			
Auto Body Technology			•				
Automotive Technology		•	•				
Dealership-Sponsored Technician	•						
Electronic Engine Control Technician	•						
Service Technician	•						
Automotive Technology Apprenticeship		•					
Aviation Technology							
Air Cargo Transport					•		
Aircraft Dispatcher					•		
Airline Marketing					•		
Air Traffic Control					•		
Career Pilot					•		
Fixed Base Operations/Airport Management					•		
Carpentry						•	
Child Development Associate	•		•				
Administrative	•		•				
CDA Training Certificate	•		•				
Infant-Toddler	•		•				
Special Child Certificate	•		•				

	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Commercial Music							
Arranger/Composer/Copyist		•					
Music Retailing		•					
Performing Musician		•					
Recording Technology		•					
Computer Information Systems							
Business Computer Programmer	•	•	•	•	•	•	•
Business Computer Assistant				•			
Business Computer Information Systems	•	•	•	•	•	•	•
Computer Operations Technician				•			
Small Computer Systems Specialist				•			
Construction Management & Technology							•
Criminal Justice				•			
Dental Assisting Technology				•			
Diesel Mechanics						•	
Digital Electronics			•				
Drafting & Design Technology			•		•		
Electronic Design			•				
Educational Paraprofessional							•
Bilingual/ESL							•
Educational Assistant							•
Electrical Technology						•	
Electronic Telecommunications			•		•	•	
Electronics Technology					•	•	
Avionics					•		
Engineering Technology							
Electronic Controls	•				•		•
Electronic Quality Control	•						•
Electro-Mechanical	•				•		•

BHC — Brookhaven College  
 CVC — Cedar Valley College  
 EFC — Eastfield College  
 ECC — El Centro College  
 MVC — Mountain View College  
 NLC — North Lake College  
 RC — Richland College

## Career Education Programs

	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Manufacturing Engineering	•						•
Mechanical Quality Control					•		•
Mechanical Technology							•
Quality Control	•				•		•
Robotics and Fluid Power	•				•		•
Fashion Marketing	•	•					
Financial Management							•
Fire Protection Technology				•			
Food And Hospitality Service				•			
Graphic Arts/Communications			•				
Interior Design				•			
Legal Assistant				•			
Machine Parts Inspection					•		
Machine Shop					•		
Management Careers							
Administrative Management	•	•	•	•	•	•	•
Mid-Management	•	•	•	•	•	•	•
Postal Service Administration					•		
Sales, Marketing & Retail Management	•	•					
Small Business Management		•			•		•
Transportation and Logistics Management			•				
Medical Assisting Technology				•			
Medical Laboratory Technology				•			
Medical Transcription				•			
Motorcycle Mechanics		•					
Office Careers							
Administrative Assistant	•	•	•	•	•	•	•
General Office Certificate	•	•	•	•	•	•	•
General Office-Accounting Emphasis	•	•	•	•	•	•	•

	BHC	CVC	EFC	ECC	MVC	NLC	RLC
General Office-Office Clerical	•	•	•	•	•	•	•
Legal Secretary	•	•	•	•	•	•	•
Professional Secretary	•	•	•	•	•	•	•
Records Management	•	•		•			
Office Information Systems Specialist	•	•	•	•	•	•	•
Word Processing Operator	•	•	•	•	•	•	•
Ornamental Horticulture Technology							
Florist							•
Greenhouse Florist							•
Landscape Gardener							•
Landscape Management							•
Landscape Nursery							•
Outboard Marine Engine Mechanics		•					
Pattern Design				•			
Radiologic Sciences							
Diagnostic Medical Sonography				•			
Radiography Technology				•			
Real Estate						•	•
Respiratory Therapy Technology				•			
Small Engine Mechanics		•					
Social Work Associate			•				
Human Services			•				
Surgical Technology				•			
Surgical Technology for Graduate R.N.				•			
Training Paraprofessionals for the Deaf			•				
Sign Language Certificate			•				
Video Technology						•	
Vocational Nursing				•			
Welding Technology					•		

BHC — Brookhaven College  
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 NLC — North Lake College  
 RC — Richland College

# RECIPROCAL TUITION AGREEMENT

## TCJC PROGRAMS

The following programs offered by Tarrant County Junior College may be taken by Dallas County residents at in-county tuition rates:

Program	Campus*
Agribusiness Technology	NORTHWEST
Banking and Finance	NORTHEAST
Business	NORTHEAST, NORTHWEST, SOUTH
Civil/Construction	NORTHEAST
Dental Hygiene	NORTHEAST
Emergency Medical Technology	NORTHEAST
Fashion Merchandising	NORTHEAST
Industrial Supervision	SOUTH
Major Appliance Repair	SOUTH
Marketing	NORTHEAST, NORTHWEST, SOUTH
Media Communications	NORTHEAST
Medical Record Technology	NORTHEAST
Mental Health/Mental Retardation Technology	NORTHEAST
Motorcycle Service Technician	NORTHWEST
Nondestructive Evaluation Technology	SOUTH
Physical Therapist Assistant	NORTHEAST
Consumer Electronics Technician	SOUTH
Small Gasoline Engine Repair	NORTHEAST
Surveying Technology	NORTHEAST



# 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 66 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.

	CREDIT HOURS
<b>SEMESTER I</b>	
ACC 201 Principles of Accounting I	3
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
MTH 130 Business Mathematics or MTH 111 Mathematics for Business and Economics	3
OFC 160 Office Calculating Machines	3
	15
<b>SEMESTER II</b>	
ACC 202 Principles of Accounting II	3
ENG 102 Composition II	3
CIS 105 Introduction to Computer Information Systems	3
MGT 136 Principles of Management	3
OFC 172 Beginning Typing*	3
SC 101 Introduction to Speech Communication	3
	18
<b>SEMESTER III</b>	
ACC 203 Intermediate Accounting I	3
ACC 204 Managerial Accounting	3
ACC 250 Microcomputer-Based Accounting Applications	3
ECO 201 Principles of Economics I	3
†Elective	3
ACC 803 Cooperative Work Experience or ACC 804 Cooperative Work Experience or	3-4
†††Elective	3-4
	18-19

## SEMESTER IV

ACC 238 Cost Accounting or	
ACC 239 Income Tax Accounting	3
BUS 234 Business Law	3
ECO 202 Principles of Economics II	3
OFC 231 Business Communications	3
††Elective	3
	15

Minimum Hours Required 66

†Elective must be selected from the following:

ANT 100 Introduction to Anthropology	3
GOV 201 American Government	3
GOV 202 American Government	3
HST 101 History of the United States	3
HST 102 History of the United States	3
HD 105 Basic Process of Interpersonal Relationships	3
HD 106 Personal and Social Growth	3
PSY 101 Introduction to Psychology	3
PSY 103 Human Sexuality	3
PSY 131 Applied Psychology and Human Relations	3
SOC 101 Introduction to Sociology	3
SOC 102 Social Problems	3

††Elective must be selected from the following:

ART 104 Art Appreciation	3
ENG 201 British Literature	3
ENG 202 British Literature	3
ENG 203 World Literature	3
ENG 204 World Literature	3
ENG 205 American Literature	3
ENG 206 American Literature	3
HUM 101 Introduction to the Humanities	3
MUS 104 Music Appreciation	3
PHI 102 Introduction to Philosophy	3
THE 101 Introduction to the Theatre	3
Foreign Language	

†††Electives may be selected from the following:

Any CIS or CS Programming Course	
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
ACC 813 Cooperative Work Experience	3
ACC 814 Cooperative Work Experience	4
BUS 143 Personal Finance	3
BUS 237 Organizational Behavior	3
CIS 262 Contemporary Topics in Computer Science and Data Processing	3
CIS 264 Special Topics in Computer Science and Data Processing	4
MKT 206 Principles of Marketing	3

\*Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives†††listed for this program.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## AVIATION TECHNOLOGY

Because of the varied and interrelated aviation career options available, Mountain View's Aviation Technology Program is designed to allow students to take a group of core courses which includes selected aviation, business, English, mathematics and human relations courses and then proceed with specialized courses in the specific career option they wish to enter.

The Associate of Applied Arts and Sciences degree options are (1) Career Pilot including flight instructor certificate, multi-engine rating, flight engineer and air transport pilot ground school and type-rating for small, multi engine, turbo-jet powered airplane; (2) Air Cargo Transport; (3) Airline Marketing; (4) Fixed Base Operations/Airport Management; (5) Aircraft Dispatcher and (6) Air Traffic Control. A one year certificate program is available in Aircraft Dispatcher.

## AVIATION TECHNOLOGY CAREER PILOT OPTION

(Associate Degree)

The Career Pilot Option provides students with flight training and ground school through the commercial certificate. All ground school instruction and flight training conform to Part 61 and 141 of the Federal Aviation Administration Regulations. Prior to admission to the program, registration and payment of fees, consultation with and approval by an Aviation Technology instructor is necessary. Simulator fees, flight fees and fees for pre- and post-flight briefing are in addition to the regular tuition charge.

Students completing this option may find employment opportunities as an airline pilot, corporate pilot, flight engineer, flight instructor and other general aviation positions. It is recommended that students in the Career Pilot Option schedule flight training during the summer months in addition to the Spring and Fall semesters to aid in completing the program within a two year period.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 122 Aviation Law	3
AVT 135 Flight Basic*	2
AVT 210 FAA Regulations	3
AVT 226 Meteorology	3
	17
<b>SEMESTER II</b>	
AVT 123 Ground School Commercial	3
AVT 128 Aero Engines and Systems	3
AVT 137 Flight Private Pilot*	1
AVT 220 Aero Dynamics	3
ENG 101 Composition I	3
+ Mathematics Elective	3
	16

## SEMESTER III

AVT 221	Advanced Navigation	3
AVT 224	Ground School Instrument	3
AVT 227	Flight Commercial I*	2
AVT 228	Flight Commercial II*	3
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology	3
CIS 105	Introduction to Computer Information Systems	3

17

## SEMESTER IV

AVT 212	Airport Management	3
AVT 231	Flight Commercial III - Instrument*	3
AVT 232	Flight Commercial IV*	3
AVT 250	Flight Instructor Ground School or	2
AV 129	Introduction to Aircraft Electronic Systems	(3)
SC 101	Introduction to Speech Communication	3

14-15

Minimum Hours Required..... 64

+ Mathematics Elective—must be selected from the following:

MTH 101	College Algebra	3
MTH 111	Mathematics for Business and Economics	3
MTH 130	Business Mathematics	3
MTH 195	Technical Mathematics I	3

\*Flight courses are flexible enrollment and may be taken in sequence regardless of semester.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## ADDITIONAL CERTIFICATION AVAILABLE FOR CAREER PILOT OPTION

	CREDIT HOURS
<b>Flight Instructor Certificate</b>	
AVT 250 Flight Instructor Ground School	2
AVT 251 Flight Instructor - Airplane*	2
AVT 252 Instrument Flight Instructor Ground School	3
AVT 253 Flight Instructor - Airplane Instrument*	1
<b>Multi-Engine Rating</b>	
AVT 254 Flight Advanced I*	1
<b>Flight Engineer</b>	
AVT 263 Flight Engineer Ground School	3
<b>Air Transport Pilot</b>	
AVT 264 Air Transport Pilot Ground School	3
<b>Type-Rating (small, multi-engine, turbo-jet)</b>	
AVT 255 Type-Rating Turbo-Jet Ground School	3
AVT 256 Flight Advanced II-Jet Type-Rating*	1

\*Flight courses are flexible enrollment and may be taken in sequence regardless of semester.

## AIR CARGO TRANSPORT OPTION

(Associate Degree)

This option is designed to provide students with an overview of transportation methods and technology associated with the aviation industry. Upon completion of the program, students may be eligible to be employed in positions such as air cargo sales, air freight transportation and cargo loading.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 122 Aviation Law	3
AVT 210 FAA Regulations	3
BUS 105 Introduction to Business	3
	15

<b>SEMESTER II</b>	
AVT 226 Meteorology	3
AVT 249 Air Transportation, Traffic and Cargo	3
ACC 201 Principles of Accounting I	3
ENG 101 Composition I	3
+ Elective	3
	15

<b>SEMESTER III</b>	
AVT 212 Airport Management	3
AVT 223 Airline Management	3
MGT-136 Principles of Management	3
PSY 131 Applied Psychology and Human Relations or	
PSY 101 Introduction to Psychology	3
SC 101 Introduction to Speech Communication	3
	15

<b>SEMESTER IV</b>	
AVT 225 Aviation Marketing	3
AVT 703 Cooperative Work Experience or	
BUS 234 Business Law	3
ACC 202 Principles of Accounting II	3
CIS 105 Introduction to Computer Information Systems	3
ECO 201 Principles of Economics I	3
	15

Minimum Hours Required 60

+ Elective—must be selected from the following:

MTH 101 College Algebra	3
MTH 130 Business Mathematics	3
MTH 195 Technical Mathematics I	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## AIRLINE MARKETING OPTION

(Associate Degree)

The Airline Marketing Option stresses the significance and functions of marketing from the airline viewpoint. Students completing the program may opt to enter a variety of marketing related positions in the areas of customer service, sales and promotion, crew scheduling or entry level management.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 122 Aviation Law	3
AVT 210 FAA Regulations	3
BUS 105 Introduction to Business	3
	15

<b>SEMESTER II</b>	
AVT 249 Air Transportation, Traffic and Cargo	3
ACC 201 Principles of Accounting I	3
CIS 105 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
+ Elective	3
	15

<b>SEMESTER III</b>	
AVT 212 Airport Management	3
AVT 223 Airline Management	3
ECO 201 Principles of Economics I	3
PSY 131 Applied Psychology and Human Relations or	
PSY 101 Introduction to Psychology	3
SC 101 Introduction to Speech Communication	3
	15

<b>SEMESTER IV</b>	
AVT 225 Aviation Marketing	3
AVT 703 Cooperative Work Experience or	
Elective	3
ACC 202 Principles of Accounting II	3
ECO 202 Principles of Economics II	3
+ + Elective	3
	15

Minimum Hours Required 60

+ Elective — must be selected from the following:

MTH 101 College Algebra	3
MTH 130 Business Mathematics	3
MTH 195 Technical Mathematics I	3
+ + Elective — must be selected from the following:	
MKT 206 Principles of Marketing	3
MKT 230 Salesmanship	3
MKT 233 Advertising and Sales Promotion	3
BUS 234 Business Law	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# AIRCRAFT DISPATCHER

CREDIT  
HOURS

(Certificate)

The job performed by an aircraft dispatcher is an integral part of the overall flight operations for airlines. An individual in this position works in conjunction with an airline pilot and is responsible for regulation compliance, weather and loading procedures prior to take-off. In the Aircraft Dispatcher Program students may earn a certificate after approximately one year or choose to complete the Associate in Applied Arts and Sciences Degree.

Entry into either program will be in accordance with Federal Aviation Administration regulations and with instructor approval. Upon completion of the courses in the desired program, students may be recommended to apply to take the FAA written examination for aircraft dispatcher.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation .....	3
AVT 121 Ground School Private .....	3
AVT 122 Aviation Law .....	3
AVT 210 FAA Regulations, Airspace and Air Traffic Control .....	3
AVT 226 Meteorology .....	3
AVT 261 Aircraft Dispatcher .....	3
	<b>18</b>

<b>SEMESTER II</b>	
AVT 123 Ground School Commercial .....	3
AVT 128 Aero Engine and Systems .....	3
AVT 221 Advanced Navigation .....	3
AVT 224 Ground School Instrument .....	3
AVT 262 Practical Dispatching .....	3
	<b>15</b>

Minimum Hours Required..... 33

## AIR TRAFFIC CONTROL OPTION

(Associate Degree)

Mountain View offers a specialized degree program in air traffic control in conjunction with the Southwest Region ARTC. The program provides students with the background and general experience in aviation which may enable them to enter an air traffic control career with the FAA. Career opportunities in air traffic control include positions such as control tower operator, approach control, air route traffic control and flight service station specialist.

Students interested in admission to the air traffic control program must have completed 15 credit hours (Aviation Technology courses recommended) prior to enrollment into the specialized air traffic control courses and must meet FAA eligibility requirements.

<b>SEMESTER I</b>	
AVT 121 Ground School Private .....	3
AVT 135 Flight Basic* .....	2
AVT 137 Flight Private Pilot* .....	1
AVT 210 FAA Regulations, Airspace and Air Traffic Control .....	3
AVT 221 Advanced Navigation .....	3
AVT 226 Meteorology .....	3
	<b>15</b>

<b>SEMESTER II</b>	
AVT 270 Orientation to Air Traffic Control .....	5
AVT 272 Aircraft Types/Air Traffic Control Communications .....	2
AVT 274 Air Traffic Control Computer Operations .....	3
AVT 704 Cooperative Work Experience .....	4
	<b>14</b>

<b>SEMESTER III</b>	
AVT 224 Ground School Instrument .....	3
ENG 101 Composition I .....	3
MTH 195 Technical Mathematics I .....	3
PSY 131 Applied Psychology and Human Rela- tions .....	3
SC 101 Introduction to Speech Communication .....	3
	<b>15</b>

<b>SEMESTER IV</b>	
AVT 212 Airport Management or MGT 136 Principles of Management .....	3
AVT 223 Airline Management or MGT 242 Personnel Administration .....	3
AVT 804 Cooperative Work Experience .....	4
ENG 102 Composition II .....	3
	<b>13</b>

<b>SEMESTER V</b>	
AVT 814 Cooperative Work Experience .....	4

Minimum Hours Required..... 61

\*Flight courses are flexible enrollment and may be taken in sequence regardless of semester.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## FIXED BASE OPERATIONS/ AIRPORT MANAGEMENT OPTION

(Associate Degree)

This option provides students with a general administrative overview combining aviation and business courses stressing terminology, management techniques and functions as they apply to the aviation industry. Students completing this program may qualify for support or training positions in airport management, as staff members to operations superintendents or aviation authority boards. Positions as fixed base operators for aircraft dealers may include equipment sales and service and aircraft sales.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 122 Aviation Law	3
AVT 210 FAA Regulations	3
BUS 105 Introduction to Business	3
	15
<b>SEMESTER II</b>	
AVT 226 Meteorology	3
AVT 249 Air Transportation, Traffic and Cargo	3
CIS 105 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
+ Elective	3
	15
<b>SEMESTER III</b>	
AVT 223 Airline Management	3
ACC 201 Principles of Accounting I	3
ECO 201 Principles of Economics I	3
PSY 131 Applied Psychology and Human Relations or	
PSY 101 Introduction to Psychology	3
SC 101 Introduction to Speech Communication	3
	15
<b>SEMESTER IV</b>	
AVT 212 Airport Management	3
AVT 703 Cooperative Work Experience or	
MGT 153 Small Business Management	3
ACC 202 Principles of Accounting II	3
BUS 234 Business Law	3
ECO 202 Principles of Economics II	3
	15
Minimum Hours Required	60

+ Math elective — must be selected from the following:

MTH 101 College Algebra	3
MTH 195 Technical Mathematics I	3
MTH 130 Business Mathematics	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## AIRCRAFT DISPATCHER OPTION

(Associate Degree)

The job performed by an aircraft dispatcher is an integral part of the overall flight operations for airlines. An individual in this position works in conjunction with an airline pilot and is responsible for regulation compliance, weather and loading procedures prior to take-off. In the Aircraft Dispatcher Program students may earn a certificate after approximately one year or choose to complete the Associate in Applied Arts and Sciences Degree.

Entry into either program will be in accordance with Federal Aviation Administration regulations and with instructor approval. Upon completion of the courses in the desired program, students may be recommended to apply to take the FAA written examination for aircraft dispatcher.

	CREDIT HOURS
<b>SEMESTER I</b>	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 122 Aviation Law	3
AVT 210 FAA Regulations, Airspace and Air Traffic Control	3
AVT 226 Meteorology	3
	15
<b>SEMESTER II</b>	
AVT 123 Ground School Commercial	3
AVT 128 Aero Engine and Systems	3
AVT 221 Advanced Navigation	3
CIS 105 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
	15
<b>SEMESTER III</b>	
AVT 224 Ground School Instrument	3
AVT 261 Aircraft Dispatcher	3
MTH 195 Technical Mathematics I	3
PSY 131 Applied Psychology and Human Relations	3
SC 101 Introduction to Speech Communication	3
	15
<b>SEMESTER IV</b>	
AVT 262 Practical Dispatching	3
AVT 129 Introduction to Aircraft Electrical Systems	3
BUS 105 Introduction to Business	3
MGT 136 Principles of Management	3
MTH 196 Technical Mathematics II	3
	15
Minimum Hours Required	60

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# BUSINESS COMPUTER 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 the graduate with experience and continued learning may advance in career paths appropriate to their own particular interests and abilities.

## CREDIT HOURS

### SEMESTER I

CIS 105	Introduction to Computer Information Systems	3
BUS 105	Introduction to Business or	
MGT 136	Principles of Management	3
OFC 176	Keyboarding	1
MTH 115	College Mathematics I*	3
COM 131	Applied Communications or	
ENG 101	Composition I	3
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology or	
HD 105	Interpersonal Relationships or	
HD 107	Developing Leadership Behavior	3
		16

### SEMESTER II

CIS 150	Computer Program Logic and Design	3
CIS 160	Data Communications	3
CIS 162	COBOL Programming I	4
ACC 201	Principles of Accounting I**	3
SC 101	Introduction to Speech Communication	3
		16

### SEMESTER III

CIS 164	COBOL Programming II	4
CIS 170	RPG Programming or	
CIS 172	BASIC Programming or	
CIS 173	PASCAL Programming for Business	3
CIS 205	JCL and Operating Systems	4
ACC 202	Principles of Accounting II	3
+ + Elective		3
		17

### SEMESTER IV

CIS 210	Assembly Language I	4
CIS 225	Applied Systems	4
CIS 252	Advanced COBOL Techniques or	
CIS 254	Data Base Systems	4
+ Elective		3-4
		15-16

Minimum Hours Required 64

+ Electives—must be selected from the following: Any CIS or CS course (including CIS 700-800 Cooperative Work Experience).

BUS 105	Introduction to Business	3
BUS 234	Business Law	3
BUS 237	Organizational Behavior	3
ECO 201	Principles of Economics I	3
ECO 202	Principles of Economics II	3
ENG 210	Technical Writing	3
MGT 136	Principles of Management	3
MKT 206	Principles of Marketing	3
MTH 202	Introductory Statistics	3
Other 200 level Accounting courses.		

\*MTH 111, MTH 112, MTH 130 may be substituted

\*\*ACC 131 Bookkeeping I and ACC 132 Bookkeeping II may be substituted for ACC 201 Principles of Accounting

+ + Electives—must be selected from the following:

ART 104	Art Appreciation	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

NOTE: Students may obtain credit toward a degree for only one of each of the pairs of courses listed below:

CIS 172 or CS 122
CIS 210 or CS 211
CIS 105 or CS 111
CIS 173 or CS 112

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



# BUSINESS COMPUTER INFORMATION SYSTEMS

(Associate Degree)

This program is designed to prepare students with entry-level skills in computer information systems. The curriculum includes many of the basic data processing courses as well as the basic requirements for four-year programs.

	CREDIT HOURS
<b>SEMESTER I</b>	
CIS 105 Introduction to Computer Information Systems	3
BUS 105 Introduction to Business or	
MGT 136 Principles of Management	3
MTH 111 Mathematics for Business and Economics I	3
ENG 101 Composition I	3
+ Elective	3
	15
<b>SEMESTER II</b>	
CIS 162 COBOL Programming I	4
MTH 112 Mathematics for Business and Economics II	3
SC 101 Introduction to Speech Communication	3
CIS 150 Computer Program Logic and Design	3
ACC 201 Principles of Accounting I*	3
	16
<b>SEMESTER III</b>	
CIS 164 COBOL Programming II	4
CIS 170 RPG Programming or	
CIS 172 BASIC Programming or	
CIS 173 PASCAL Programming for Business	3
ECO 201 Principles of Economics I	3
ACC 202 Principles of Accounting II	3
++ Elective	3
	16
<b>SEMESTER IV</b>	
CIS 210 Assembly Language I	4
ECO 202 Principles of Economics II	3
Any CIS/CS or Accounting course	3
+++ Elective	3
	13
Minimum Hours Required:	60



+ Elective—must be selected from the following:

Anthropology  
Government  
History  
Human Development  
Psychology  
Sociology

++ Elective—must be selected from the following:

ART 104	Art Appreciation	3
ENG 201	British Literature	3
ENG 202	British Literature	3
ENG 203	World Literature	3
ENG 204	World Literature	3
ENG 205	American Literature	3
ENG 206	American Literature	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
	Foreign Language	3

+++ Recommended Electives

Any CIS or CS course (including CIS 700-800 Cooperative Work Experience).

Any 200 level accounting course not listed.

NOTE: Students may obtain credit toward a degree for only one of each of the pairs of courses listed below:

CIS 172 or CS 122  
CIS 210 or CS 211  
CIS 105 or CS 111  
CIS 173 or CS 112

\*ACC 131 and ACC 132 may be substituted for ACC 201. Both courses must be taken for equivalent credit to ACC 201.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# 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 engineers and professional staff. Enrollment in drafting cooperative work experience courses (co-op) provides students with on-the-job experience while in the program.

	CREDIT HOURS
<b>SEMESTER I</b>	
DFT 135	Reproduction Processes..... 2
DFT 183	Basic Drafting..... 4
COM 131	Applied Communications or
ENG 101	Composition I..... 3
MTH 195	Technical Mathematics I or
MTH 101	College Algebra..... 3
**Elective	..... 3
	<b>15</b>
<b>SEMESTER II</b>	
DFT 160	Manufacturing Fundamentals..... 2
+ DFT Elective	..... 3
+ DFT Elective or	
+ + Cooperative Work Experience	..... 3-4
MTH 196	Technical Mathematics II or
MTH 102	Plane Trigonometry..... 3
SC 101	Introduction to Speech
	Communication..... 3
	<b>14-15</b>
<b>SEMESTER III</b>	
+ DFT Elective	..... 3
EGR 106	Descriptive Geometry..... 3
HD 105	Basic Processes of Interpersonal
	Relationships or
PSY 131	Applied Psychology and
	Human Relations..... 3
**Elective or	..... 3
+ + Cooperative Work Experience	..... 3-4
*Elective	..... 3
	<b>15-16</b>
<b>SEMESTER IV</b>	
+ DFT Elective	..... 3
+ DFT Elective or	
+ + Cooperative Work Experience	..... 3-4
PHY 131	Applied Physics..... 4
GVT 202	American Government or
HST 102	History of the United States..... 3
**Elective	..... 3
	<b>16-17</b>
Minimum Hours Required:	<b>60</b>

+ DFT Electives—must be selected from the following:

BPR 177	Blueprint Reading..... 2
BPR 178	Blueprint Reading..... 2
DFT 136	Geological and Land Drafting..... 3
DFT 184	Intermediate Drafting..... 3
DFT 185	Architectural Drafting..... 4
DFT 230	Structural Drafting..... 3
DFT 231	Electronic Drafting..... 3
DFT 232	Technical Illustration..... 3
DFT 234	Advanced Technical Illustration..... 4
DFT 235	Building Equipment (Mechanical and
	Electrical)..... 3
DFT 236	Pipe Drafting..... 3
DFT 245	Computer Aided Design..... 3
DFT 246	Advanced CAD-Electronic..... 3
DFT 248	Advanced CAD-Mechanical..... 3
DFT 249	Advanced CAD-Architectural..... 3
DFT 250	Sheet Metal Design..... 3
DFT 251	Industrial Design..... 3
DFT 255	Selected Topics in Drafting..... 3

+ + Drafting Cooperative Work Experience courses—must be selected from the following:

DFT 703	Cooperative Work Experience..... 3
DFT 704	Cooperative Work Experience..... 4
DFT 713	Cooperative Work Experience..... 3
DFT 714	Cooperative Work Experience..... 4
DFT 803	Cooperative Work Experience..... 3
DFT 804	Cooperative Work Experience..... 4
DFT 813	Cooperative Work Experience..... 3
DFT 814	Cooperative Work Experience..... 4

\*Elective—must be selected from the following:

ACC 131	Bookkeeping I..... 3
ACC 201	Principles of Accounting I..... 3
BUS 105	Introduction to Business..... 3
ECO 201	Principles of Economics I..... 3
FR 101	Beginning French..... 4
HUM 101	Introduction to the Humanities..... 3
MGT 136	Principles of Management..... 3
MUS 104	Music Appreciation..... 3
PHI 102	Introduction to Philosophy..... 3
SPA 101	Beginning Spanish..... 4
THE 101	Introduction to Theatre..... 3

\*\*Electives may be selected from drafting courses approved by the Drafting Department. If an elective is selected outside of Drafting, Electronics Technology 191, Computer Science 111, or Graphic Arts 134 are suggested.

**NOTE:** Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# ELECTRONICS TECHNOLOGY

(Associate Degree)

This program prepares students for work as electronics technicians by familiarizing them with most electronic testing equipment, training them in technical communications and providing them with electronic theory and skills.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits and Electrical Measurements or	4
ET 135 DC-AC Theory and Circuit Analysis	(6)
COM 131 Applied Communications or	
ENG 101 Composition I	3
DFT 182 Technician Drafting or	2
DFT 183 Basic Drafting or	(4)
DFT 231 Electronic Drafting	(3)
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
+ Elective	3
	<b>15-19</b>

<b>SEMESTER II</b>	
ET 191 AC Circuits (Unless ET 135 Completed)	(4)
ET 193 Active Devices	4
ET 194 Instrumentation	3
SC 101 Introduction to Speech Communication	3
MTH 196 Technical Mathematics II or	
MTH 102 Plane Trigonometry	3
	<b>13-17</b>

<b>SEMESTER III</b>	
ET 231 Special Circuits with Communications Applications	4
ET 232 Analysis of Electronics Logic and Switching Circuits	4
ET 238 Linear Integrated Circuits	4
ET 240 Electronic Theory and Application of Digital Computers	4
PHY 131 Applied Physics or	
PHY 117 Concepts in Physics	3
	<b>20</b>

<b>SEMESTER IV</b>	
ET 234 Electronic Circuits & Systems	3
ET 237 Modular Memories & Microprocessors	4
ET 239 Microwave Theory	3
+ + Elective	7-8
	<b>17-18</b>

Minimum Hours Required: 65

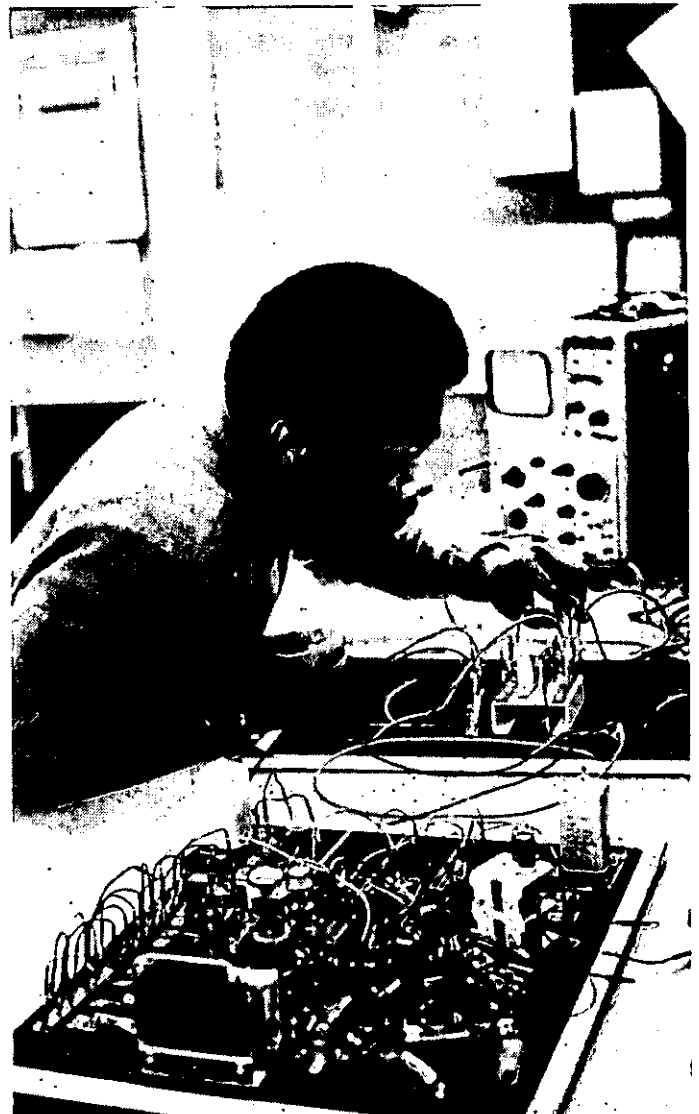
+Electives—must be selected from the following:

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
HD 104	Educational or Career Planning	3
HD 105	Basic Processes of Interpersonal Relationships	3
PSY 101	Introduction to Psychology	3
PSY 131	Applied Psychology and Human Relationships	3

+Electives—must be selected from the following:

ET 210	Basic CRT-Display	4
ET 268	Microprocessor Troubleshooting and Interface	4
ET 803	Cooperative Work Experience	3
EGT 243	Robotics I	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



# ELECTRONICS TECHNOLOGY — AVIONICS OPTION

(Associate Degree)

The Associate Degree program in Avionics is an option to the Electronics Technology Program. This option provides the student with an electronics background and specialized skills in avionics. In this program a level of knowledge and practical skills adequate to gain entry level employment in the installation and maintenance of aircraft electronics systems (avionics) is gained by students.

+ Elective—must be selected from the following:

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
HD 104	Educational or Career Planning.....	3
HD 105	Basic Processes of Interpersonal Relationships.....	3
PSY 101	Introduction to Psychology.....	3
PSY 131	Applied Psychology and Human Relations.....	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 135 DC-AC Theory and Circuit .....	6
ET 190 DC Circuits and Electrical Measurements.....	(4)
AV 129 Introduction to Aircraft Electrical Systems.....	3
COM 131 Applied Communications or	
ENG 101 Composition I .....	3
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra .....	3
	<u>13-15</u>

<b>SEMESTER II</b>	
ET 191 AC Circuits (Unless ET 135 Completed).....	(4)
ET 193 Active Devices.....	4
AV 235 Operational Testing of Aircraft Electronic Systems.....	4
SC 101 Introduction to Speech Communication.....	3
MTH 196 Technical Mathematics II or	
MTH 102 Plane Trigonometry .....	3
PHY 131 Applied Physics or	
PHY 117 Concepts in Physics .....	4
	<u>18-22</u>

<b>SEMESTER III</b>	
ET 231 Special Circuits with Communication Applications.....	4
ET 232 Analysis of Electronic Logic and Switching Circuits.....	4
ET 238 Linear Integrated Circuits or	4
ET 803 Cooperative Work Experience .....	(3)
ET 240 Electronic Theory and Applications of Digital Computers.....	4
+ Elective .....	3
	<u>18-19</u>

<b>SEMESTER IV</b>	
ET 237 Modular Memories and Microprocessors.....	4
ET 239 Microwave Technology.....	3
AV 132 Aircraft Electrical and Electronics Systems Installation.....	4
MGT 153 Small Business Management.....	3
	<u>14</u>

Minimum Hours Required..... 63

# ENGINEERING TECHNOLOGY — ELECTRONIC CONTROLS OPTION

(Associate Degree)

The Electronic Controls option prepares the student for technician level employment in electronics and related industries. The emphasis in this option is on electronic control systems, particularly those that exist in an automated manufacturing environment. The student studies electronic devices and their application in digital and analog control circuits, basic microprocessors and microprocessor interfacing, basic robotics, and digital machine control systems.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits*	4
QCT 121 Introduction to Quality Control	2
EGT 141 Basic Hydraulics and Fluid Mechanics	4
MTH 195 Technical Mathematics I*	3
EGR 186 Manufacturing Processes or	2
ET 234 Electronic Circuits and Systems	(3)
DFT 182 Technician Drafting or	2
DFT 183 Basic Drafting	(4)
	17-20

<b>SEMESTER II</b>	
ET 191 AC Circuits*	4
ET 193 Active Devices	4
EGT 142 Instrumentation and Testing or	
ET 194 Instrumentation	3
MTH 196 Technical Mathematics II*	3
COM 131 Applied Communications*	3
	17

<b>SEMESTER III</b>	
EGT 143 Technical Programming or	
ET 240 Electronics Theory and Application of Digital Computers	4
EGT 242 Digital Control Circuits or	
ET 232 Analysis of Electronic Logic and Switching Circuits	4
EGT 228 Amplifiers and Control Circuits or	
ET 238 Linear Integrated Circuits	4
EGT 239 Principles of Microprocessor Control or	
ET 237 Modular Memories and Microprocessors	4
SC 101 Introduction to Speech Communication	3
	19

## SEMESTER IV

EGT 268 Microprocessor Interfacing Troubleshooting	4
EGT 237 Electromagnetic and Digital Machine Control	3
PHY 131 Applied Physics*	4
+ Elective or Cooperative Work Experience	2-4
+ + Elective	3
	16-18

Minimum Hours Required: 69

+ Elective—must be selected from the following:

EGR 187 Manufacturing Processes	2
EGT 222 Fundamentals of Pneumatics	3
EGT 232 Applied Mechanics	4
EGT 225 Advanced Fluid Power Systems	4
EGT 243 Robotics I	3
EGT 247 Robotics II	3
EGT 803,804 Cooperative Work Experience	3-4
MT 248 Computer Aided Drafting or	4
DFT 245 Computer Aided Design	(3)

+ + Elective—must be selected from the following:

ART 104 Art Appreciation	3
HUM 101 Introduction to the Humanities	3
MUS 104 Music Appreciation	3
PHI 102 Introduction to Philosophy	3
THE 101 Introduction to the Theatre	3
ANY COURSE IN Anthropology, Government, History, Human Development, Psychology, Sociology, Foreign Language, or Literature	

\*The following substitutions for required courses are permitted:

MTH 101 and MTH 102 for MTH 195 and MTH 196  
PHY 201 for PHY 131.  
ENG 101 for COM 131

**NOTE:** Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# ENGINEERING TECHNOLOGY — ELECTRONIC CONTROLS CERTIFICATE

(Certificate)

This one year program develops the basic skills necessary for entry level positions in electronics related industries. All courses required for the certificate are applicable to the Engineering Technology degree, Electronic Controls option.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits*	4
MTH 195 Technical Mathematics I*	3
EGT 143 Technical Programming or ET 240 Electronics Theory and Application of Digital Computers	4
DFT 182 Technician Drafting or DFT 183 Basic Drafting	(4)
EGR 186 Manufacturing Processes or ET 234 Electronic Circuits and Systems	(3)
	15-18

<b>SEMESTER II</b>	
ET 191 AC Circuits*	4
ET 193 Active Devices	4
ET 232 Analysis of Electronic Logic and Switching Circuits or EGT 242 Digital Control Circuits	4
EGT 142 Instrumentation and Testing or ET 194 Instrumentation	3
MTH 196 Technical Mathematics II*	3
	18

Minimum Hours Required: 33

\*The following substitutions for required courses are permitted:

MTH 101 and MTH 102 for MTH 195 and MTH 196  
ET 135 for ET 190 and ET 191

# ENGINEERING TECHNOLOGY — QUALITY CONTROL CERTIFICATE

(Certificate)

This one-year program develops the basic skills necessary for advancement in a purchased materials, machine shop or assembly inspection department. All of the courses required for the certificate are applicable to the Engineering Technology Associate Degree, either the Electronic Quality Control option or the Mechanical Quality Control option.

	CREDIT HOURS
<b>SEMESTER I</b>	
QCT 121 Introduction to Quality Control	2
QCT 122 Dimensional Measurement	3
ET 190 DC Circuits and Electrical Measurements	4
MTH 195 Technical Mathematics I*	3
DFT 183 Basic Drafting	4
EGR 186 Manufacturing Processes	2
	18

<b>SEMESTER II</b>	
QCT 220 Physical/Environmental Testing	3
QCT 227 Non-Destructive Testing	3
EGT 143 Technical Programming or ET 240 Electronics Theory and Application of Digital Computers	4
MTH 196 Technical Mathematics II*	3
COM 131 Applied Communications*	3
	17

Minimum Hours Required: 35

\*The following substitutions for required courses are permitted:

MTH 101 and MTH 102 for MTH 195 and MTH 196  
ENG 101 for COM 131



# ENGINEERING TECHNOLOGY — MECHANICAL QUALITY CONTROL OPTION

(Associate Degree)

The Mechanical Quality Control Program prepares the graduate to enter the high opportunity area of mechanical product quality control.

The objectives of quality control include providing a customer with the highest quality product at the lowest cost and preventing defective products from ever reaching a customer. Specialized quality control courses provide training in applied statistics; metrology; physical and environmental testing, non-destructive testing, as well as an introduction to quality control techniques such as control and product liability. The program also includes a broad technology background in DC circuits, hydraulics, pneumatics, drafting; manufacturing processes; CAD/CAM and technical programming.

	CREDIT HOURS
<b>SEMESTER I</b>	
QCT 121	Introduction to Quality Control . . . . . 2
MTH 195	Technical Mathematics I* . . . . . 3
DFT 183	Basic Drafting . . . . . 4
EGT 141	Basic Hydraulics and Fluid Mechanics . . . . . 4
ET 190	DC Circuits and Electrical Measurements . . . . . 4
EGR 186	Manufacturing Processes . . . . . 2
	<hr/> 19
<b>SEMESTER II</b>	
EGR 187	Manufacturing Processes . . . . . 2
QCT 122	Dimensional Measurement . . . . . 3
MTH 196	Technical Mathematics II* . . . . . 3
COM 131	Applied Communications* . . . . . 3
EGT 222	Fundamentals of Pneumatics . . . . . 3
	<hr/> 17
<b>SEMESTER III</b>	
QCT 220	Physical/Environmental Testing . . . . . 3
SC 101	Introduction to Speech Communication . . . . . 3
EGT 143	Technical Programming or ET 240 Electronics Theory and Application of Digital Computers . . . . . 4
MT 198	Mechanical Technology . . . . . 4
EGT 232	Applied Mechanics** . . . . . 4
	<hr/> 18
<b>SEMESTER IV</b>	
QCT 227	Non-Destructive Testing . . . . . 3
QCT 236	Advanced Quality Control . . . . . 4
MT 248	Computer Aided Drafting** or . . . . . 4
DFT 245	Computer Aided Design . . . . . (3)
+ Elective	. . . . . 3
	<hr/> 13-14
Minimum Hours Required:	65

+ Elective—must be selected from the following:

ART 104	Art Appreciation . . . . .	3
HUM 101	Introduction to the Humanities . . . . .	3
MUS 104	Music Appreciation . . . . .	3
PHI 102	Introduction to Philosophy . . . . .	3
THE 101	Introduction to the Theatre . . . . .	3
Any course in Anthropology, Government, History, Human Development, Psychology, Sociology, Foreign Language, or Literature		

\*The following substitutions for required courses are permitted:

MTH 101 and MTH 102 for MTH 195 and MTH 196  
ENG 101 for COM 131

\*\*Cooperative Work Experience may be substituted

**NOTE:** Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# ENGINEERING TECHNOLOGY ELECTRO-MECHANICAL OPTION

(Associate Degree)

The Electro-Mechanical option prepares the student for technician level employment with a broad based curriculum involving electronics, mechanics and fluid power devices and systems. Job opportunities exist, in all types of manufacturing, repair and maintenance, and research and development.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits and Electrical Measurements*	4
QCT 121 Introduction to Quality Control	2
EGT 141 Basic Hydraulics and Fluid Mechanics	4
MTH 195 Technical Mathematics I	3
EGR 186 Manufacturing Processes or ET 234 Electronic Circuits and Systems	(3)
DFT 182 Technician Drafting or DFT 183 Basic Drafting	(4)
	<u>17-20</u>

<b>SEMESTER II</b>	
ET 191 AC Circuits*	4
MTH 196 Technical Mathematics II*	3
COM 131 Applied Communications*	3
ET 193 Active Devices	4
EGT 143 Technical Programming or ET 240 Electronics Theory and Application of Digital Computers	4
	<u>18</u>

<b>SEMESTER III</b>	
EGT 237 Electromagnetic & Digital Machine Control	3
SC 101 Introduction to Speech Communication	3
+ Elective	3
+ + Electives	7
	<u>16</u>

<b>SEMESTER IV</b>	
EGT 243 Robotics I	3
PHY 131 Applied Physics*	4
+ + Electives	8-10
	<u>15-17</u>

Minimum Hours Required: 66

+ Elective—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

Any course in Anthropology, Government, History, Human Development, Psychology, Sociology, Foreign Language, or Literature

+ + Elective—must be selected from the following:

EGR 187	Manufacturing Processes	2
EGT 142	Instrumentation and Testing or ET 194 Instrumentation	3
EGT 222	Fundamentals of Pneumatics	3
EGT 228	Amplifier and Analog Control Circuits or ET 238 Linear Integrated Circuits	4
EGT 232	Applied Mechanics	4
EGT 239	Principles of Microcomputer Control or ET 237 Modular Memories and Microprocessors	4
EGT 242	Digital Control Circuits or ET 232 Analysis of Electronic Logic and Switching Circuits	4
EGT 247	Robotics II	3
EGT 268	Microprocessor Interfacing and Troubleshooting	4
EGT 804	Cooperative Work Experience	4
MT 248	Computer-Aided Drafting or DFT 245 Computer-Aided Design	(3)
QCT 122	Dimensional Measurement	3

\*The following substitutions for required courses are permitted:

ET 135 for ET 190 and ET 191  
MTH 101 and MTH 102 for MTH 195 and MTH 196  
PHY 201 for PHY 131  
ENG 101 for COM 131

**NOTE:** Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## ENGINEERING TECHNOLOGY ROBOTICS AND FLUID POWER CERTIFICATE

(Certificate)

This one-year program provides the student with the basic skills needed in the industrial robotics and/or industrial hydraulics and pneumatics industry. All of the courses for the one-year certificate are applicable to the Engineering Technology Associate Degree, Robotics and Fluid Power option.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits and Electrical Measurements	4
EGR 186 Manufacturing Processes	2
EGT 141 Basic Hydraulics and Fluid Mechanics	4
EGT 243 Robotics I	3
MTH 195 Technical Mathematics I*	3
	<b>16</b>

<b>SEMESTER II</b>	
DFT 182 Technician Drafting	2
EGT 222 Fundamentals of Pneumatics	3
EGT 225 Advanced Fluid Power Systems	4
EGT 247 Robotics II	3
MTH 196 Technical Mathematics II*	3
Technical Elective	2-4
	<b>17-19</b>

Minimum Hours Required: 33

Technical Electives—must be selected from the following:

EGR 187	Manufacturing Processes	2
EGT 142	Instrumentation and Testing	3
EGT 143	Technical Programming	4
EGT 248	Advanced Robotics and Automated Systems	3

\*MTH 101 and MTH 102 may be substituted for MTH 195 and MTH 196.

## ELECTRO-MECHANICAL CERTIFICATE

(Certificate)

This one-year program develops the basic skills necessary for entry level positions in electronics and mechanical technician positions. All courses required for the certificate are applicable to the Electro-Mechanical option.

	CREDIT HOURS
<b>SEMESTER I</b>	
ET 190 DC Circuits and Electrical Measurements*	4
EGR 186 Manufacturing Processes or	2
ET 234 Electronic Circuits and Systems	(3)
EGT 141 Basic Hydraulics and Fluid Mechanics	4
MTH 195 Technical Mathematics I*	3
DFT 182 Technician Drafting or	2
DFT 183 Basic Drafting	(4)
	<b>15-18</b>

<b>SEMESTER II</b>	
EGT 143 Technical Programming or	
ET 240 Electronics Theory & Application of Digital Computers	4
ET 191 AC Circuits*	4
EGT 142 Instrumentation and Testing or	
ET 194 Instrumentation	3
ET 193 Active Devices	4
EGT 237 Electromagnetic and Digital Machine Control	3
MTH 196 Technical Mathematics II*	3
	<b>21</b>

Minimum Hours Required: 36

\*The following substitutions for required courses are permitted:

ET 135 for ET 190 and ET 191  
MTH 101 and MTH 102 for MTH 195 and MTH 196

# ENGINEERING TECHNOLOGY ROBOTICS AND FLUID POWER OPTION

(Associate Degree)

The Robotics and Fluid Power option prepares the student for technician level employment in industrial robotics and/or industrial hydraulics and pneumatics. The student also receives training in electronics, microcomputers, quality control, drafting and computer aided design, and manufacturing processes.

## CREDIT HOURS

### SEMESTER I

ET 190	DC Circuits and Electrical Measurements*	4
QCT 121	Introduction to Quality Control	2
EGT 141	Basic Hydraulics and Fluid Mechanics	4
MTH 195	Technical Mathematics I*	3
EGR 186	Manufacturing Processes or	2
ET 234	Electronic Circuits and Systems	(3)
DFT 182	Technician Drafting or	2
DFT 183	Basic Drafting	(4)

17-20

### SEMESTER II

ET 191	AC Circuits*	4
MTH 196	Technical Mathematics II*	3
COM 131	Applied Communications*	3
EGT 243	Robotics I	3
EGT 222	Fundamentals of Pneumatics	3

16

### SEMESTER III

ET 193	Active Devices	4
EGT 143	Technical Programming	4
EGT 247	Robotics II	3
SC 101	Introduction to Speech Communication	3
+ Technical Electives		3

17

### SEMESTER IV

EGT 237	Electromagnetic and Digital Machine Control	3
PHY 131	Technical Physics*	4
Approved Behavioral Social Science/Humanities Elective		3
+ Technical Electives		6

16

Minimum Hours Required: 66

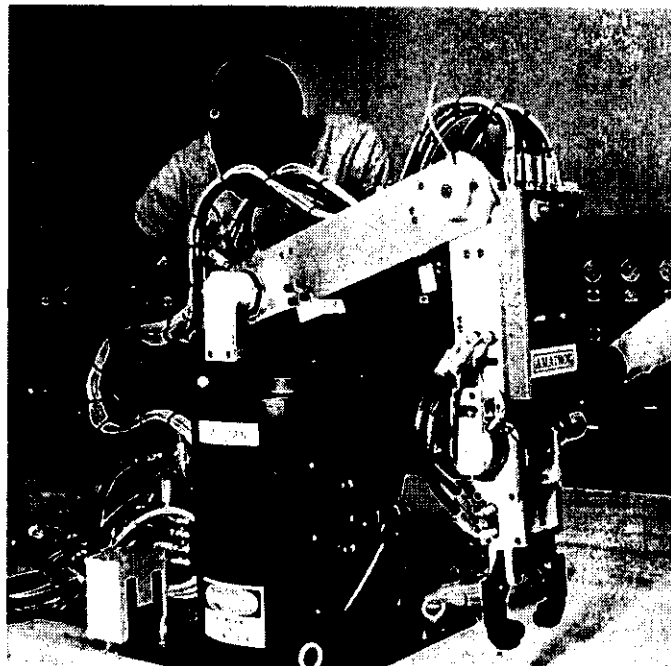
Technical Electives—must be selected from the following:

EGR 187	Manufacturing Processes	2
EGT 142	Instrumentation and Testing	3
EGT 225	Advanced Fluid Power Systems	4
EGT 232	Applied Mechanics	4
EGT 239	Principles of Microcomputer Controls	4
EGT 242	Digital Control Circuits	4
EGT 248	Advanced Robotics and Automated Systems	3
EGT 268	Microprocessor Interfacing and Troubleshooting	4
EGT 804,814	Cooperative Work Experience	4
MT 248	Computer-Aided Drafting	4
QCT 122	Dimensional Measurement	3

Approved Behavioral/Social Science/Humanities Electives:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
ANY COURSE IN	Anthropology, Government, History, Human Development, Psychology, Sociology, Foreign Language, or Literature	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



\*The following substitutions for required courses are permitted:

MTH 101 and MTH 102 for MTH 195 and MTH 196  
PHY 201 for PHY 131  
ENG 101 for COM 131

# MACHINE SHOP

(Associate Degree)

The Machine Shop Program will prepare the student for employment as an entry level machinist in the industry. It will also prepare the student for entry into an apprentice or trainee program for machinist, tool and die-maker, etc. Successful students will find access to supportive type jobs in the metal working field such as planner, programmer, etc.

Enrollment in machine shop courses will be open on the first Monday of October and November in the fall semester and the first Monday of February and March in the spring semester. In each case, such enrollment is subject to completion of specified prerequisite competencies. The program is designed to be self-paced by the student but students can generally plan to spend 18 months of study to complete the entire program.

## CREDIT HOURS

### SEMESTER I

MS 133	Basic Lathe	5
MS 134	Basic Milling Machine	5
*DFT 183	Basic Drafting	4
MTH 195	Technical Mathematics I	3
		17

### SEMESTER II

MS 135	Intermediate Lathe	5
MS 136	Intermediate Milling Machine	5
*DFT 184	Intermediate Drafting	3
MTH 196	Technical Mathematics II	3
QCT 122	Dimensional Measurement	3
		19

### SEMESTER III

MS 233	Advanced Lathe	5
MS 234	Advanced Milling Machine	5
COM 131	Applied Communications or	
ENG 101	Composition I	3
EGR 186	Manufacturing Processes or	
MS 702	Cooperative Work Experience or	2
+ Elective		(1)
PHY 131	Applied Physics	4
		18-19

### SEMESTER IV

MS 235	Applied Lathe	5
MS 236	Applied Milling Machine	5
PSY 131	Applied Psychology and	
	Human Relations	3
SC 101	Introduction to Speech	
	Communication	3
		16

Minimum Hours Required..... 70

+ Elective—must be selected from the following:

MS 145	Special Topics	1
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\*Students may substitute Blueprint Reading 177 for Drafting 183 and Blueprint Reading 178 for Drafting 184.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



# MANAGEMENT CAREERS— ADMINISTRATIVE MANAGEMENT OPTION

(Associate Degree)

The Administrative Management Option is designed for students seeking a broad program of study in all phases of business practices. This option focuses not only at the core of management (principles of management, organizational behavior, personnel administration) but also encompasses the critical areas of business operations (principles of marketing, accounting, business law).

## CREDIT HOURS

### SEMESTER I

MGT 136	Principles of Management.....	3
BUS 105	Introduction to Business.....	3
ENG 101	Composition I.....	3
MTH 111	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics.....	3
+ Elective	.....	3
		15

### SEMESTER II

MKT 206	Principles of Marketing.....	3
ACC 201	Principles of Accounting I.....	3
ENG 102	Composition II.....	3
CIS 105	Introduction to Computer Information Systems.....	3
++ Elective	.....	3
		15

### SEMESTER III

ACC 202	Principles of Accounting II.....	3
BUS 234	Business Law.....	3
ECO 201	Principles of Economics I.....	3
PSY 131	Applied Psychology and Human Relations.....	3
SC 101	Introduction to Speech Communication.....	3
		15

### SEMESTER IV

MGT 242	Personnel Administration.....	3
BUS 237	Organizational Behavior.....	3
ECO 202	Principles of Economics II.....	3
OFC 231	Business Communications.....	3
++ Elective	.....	3
+++ Elective	.....	3
		18

Minimum Hours Required:..... 63

+ Elective—must be selected from the following:

ART 104	Art Appreciation.....	3
HUM 101	Introduction to the Humanities.....	3
ENG 201	British Literature.....	3
ENG 202	British Literature.....	3
ENG 203	World Literature.....	3
ENG 204	World Literature.....	3
ENG 205	American Literature.....	3
ENG 206	American Literature.....	3
MUS 104	Music Appreciation.....	3
PHI 102	Introduction to Philosophy.....	3
THE 101	Introduction to the Theatre.....	3
Foreign Language		

+ + Electives—must be selected from the following:

MGT 153	Small Business Management.....	3
MGT 171	Introduction to Supervision.....	3
MGT 212	Special Problems in Business.....	1
MGT 703	Cooperative Work Experience.....	3
MGT 704	Cooperative Work Experience.....	4
MKT 137	Principles of Retailing.....	3
MKT 230	Salesmanship.....	3
MKT 233	Advertising and Sales Promotion.....	3
OFC 160	Office Calculating Machines.....	3
OFC 172	Beginning Typing.....	3

+ + + Elective—must be selected from the following:

GOV 201	American Government.....	3
GOV 202	American Government.....	3
HST 101	History of the United States.....	3
HST 102	History of the United States.....	3
SOC 101	Introduction to Sociology.....	3
SOC 102	Social Problems.....	3
HD 105	Basic Process of Interpersonal Relationship.....	3
HD 106	Personal and Social Growth.....	3
ANT 100	Introduction to Anthropology.....	3
PSY 100	Human Sexuality.....	3
PSY 101	Introduction to Psychology.....	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.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# MANAGEMENT CAREERS— MID-MANAGEMENT OPTION

(Associate Degree)

The Mid-Management Program provides an opportunity for students to acquire knowledge in the management field and at the same time update and sharpen personal management skills. In addition to learning about supervision, personnel management, human relations psychology, problem-solving, decision-making, and other related business topics, students also participate in an on-the-job management training course with their present employers. These management training courses at work allow students to apply what is learned in the classroom environment and obtain the valuable practical experience necessary to become competent business managers. The Mid-Management Program allows students the opportunity to bridge the gap between theory and practice as professional managers.

	CREDIT HOURS
<b>SEMESTER I</b>	
MGT 136 Principles of Management.....	3
MGT 150 Management Training.....	4
MGT 154 Management Seminar: Role of Supervision.....	2
BUS 105 Introduction to Business.....	3
ENG 101 Composition I.....	3
	15
<b>SEMESTER II</b>	
MGT 151 Management Training.....	4
MGT 155 Management Seminar: Personnel Management.....	2
CIS 105 Introduction to Computer Information Systems.....	3
MTH 111 Mathematics for Business and Economics I or MTH 130 Business Mathematics.....	3
ENG 102 Composition II.....	3
+ Elective.....	3
	18
<b>SEMESTER III</b>	
MGT 250 Management Training.....	4
MGT 254 Management Seminar: Organizational Development.....	2
ACC 201 Principles of Accounting I*.....	3
ECO 201 Principles of Economics I.....	3
PSY 131 Applied Psychology and Human Relations.....	3
SC 101 Introduction to Speech Communication.....	3
	18

## SEMESTER IV

MGT 251 Management Training.....	4
MGT 255 Management Seminar: Planning Strategy and the Decision Process.....	2
ECO 202 Principles of Economics II.....	3
++ Elective.....	3
+++ Elective.....	3
	15

Minimum Hours Required: 66

+ Elective—must be selected from the following:

ART 104 Art Appreciation.....	3
HUM 101 Introduction to the Humanities.....	3
ENG 201 British Literature.....	3
ENG 202 British Literature.....	3
ENG 203 World Literature.....	3
ENG 204 World Literature.....	3
ENG 205 American Literature.....	3
ENG 206 American Literature.....	3
MUS 104 Music Appreciation.....	3
PHI 102 Introduction to Philosophy.....	3
THE 101 Introduction to the Theatre.....	3
Foreign Language.....	

+ + Elective—may be selected from the following:

MGT 153 Small Business Management.....	3
MGT 212 Special Problems in Business.....	1
MKT 137 Principles of Retailing.....	3
MKT 230 Salesmanship.....	3
MKT 233 Advertising and Sales Promotion.....	3
OFC 160 Office Calculating Machines.....	3
OFC 172 Beginning Typing.....	3

+ + + Electives—must be selected from the following:

GOV 201 American Government.....	3
GOV 202 American Government.....	3
HST 101 History of the United States.....	3
HST 102 History of the United States.....	3
SOC 101 Introduction to Sociology.....	3
SOC 102 Social Problems.....	3
HD 105 Basic Process of Interpersonal Relationship.....	3
HD 106 Personal and Social Growth.....	3
ANT 100 Introduction to Anthropology.....	3
PSY 100 Human Sexuality.....	3
PSY 101 Introduction to Psychology.....	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.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



# MANAGEMENT CAREERS— POSTAL SERVICE ADMINISTRATION OPTION

(Associate Degree)

The Postal Service Administration curriculum is designed as a two-year program that leads to an Associate Degree in Applied Arts and Sciences. The program aids the student in developing postal skills and provides the student with an insight into multi-level functions employed throughout the postal service system. Emphasis is directed to the areas of methodology, technology, management, and leadership concepts reflected in modern day technology as applied to public service related agencies.

	CREDIT HOURS
<b>SEMESTER I</b>	
PSA 110 Introduction to Postal Service.....	3
COM 131 Applied Communications or	
ENG 101 Composition I.....	3
MTH 130 Business Mathematics.....	3
PSY 101 Introduction to Psychology.....	3
MGT 171 Introduction to Supervision.....	3
	<hr/> 15
<b>SEMESTER II</b>	
PSA 122 Customer Service.....	3
CIS 105 Introduction to Computer	
Information Systems.....	3
PSY 131 Applied Psychology and	
Human Relations.....	3
SOC 101 Introduction to Sociology.....	3
+ Elective .....	3
	<hr/> 15
<b>SEMESTER III</b>	
PSA 120 Mail Processing.....	3
SC 101 Introduction to Speech	
Communication.....	3
ACC 131 Bookkeeping I.....	3
BUS 237 Organizational Behavior.....	3
+ + Elective .....	3
	<hr/> 15
<b>SEMESTER IV</b>	
PSA 216 Postal Management.....	3
MGT 242 Personnel Administration.....	3
GVT 201 American Government.....	3
+ Elective .....	6
	<hr/> 15
Minimum Hours Required.....	60

+ Electives—must be selected from the following:

CS 122	Introduction to BASIC Programming .....	3
ECO 201	Principles of Economics I.....	3
ECO 202	Principles of Economics II.....	3
GVT 202	American Government.....	3
HD 104	Educational or Career Planning.....	3
HD 105	Basic Processes of Interpersonal	
	Relationships.....	3
HST 101	History of the United States.....	3
HST 102	History of the United States.....	3
PSY 202	Applied Psychology.....	3

+ + Elective—must be selected from the following:

ART 104	Art Appreciation.....	3
HUM 101	Introduction to the Humanities.....	3
MUS 104	Music Appreciation.....	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# MANAGEMENT CAREERS — SMALL BUSINESS MANAGEMENT OPTION

(Associate Degree)

The Small Business Management Option is designed for students who plan to become owners or managers of a small business. The practical aspects of planning, locating, resources, financing, starting, and operating a business are emphasized. Owners and managers of small businesses may also benefit from the program.

## CREDIT HOURS

### SEMESTER I

MGT 136	Principles of Management.....	3
MGT 153	Small Business Management.....	3
COM 131	Applied Communications or	
ENG 101	Composition I.....	3
SC 101	Speech Communications.....	3
+ Elective	.....	3
		15

### SEMESTER II

MGT 157	Small Business Bookkeeping and Accounting*.....	3
ENG 102	Composition II.....	3
CIS 105	Introduction to Computer Information Systems.....	3
MTH 111	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics.....	3
BUS 105	Introduction to Business.....	3
		15

### SEMESTER III

MKT 206	Principles of Marketing.....	3
MGT 211	Small Business Operations.....	3
ECO 201	Principles of Economics I.....	3
PSY 131	Applied Psychology and Human Relations.....	3
++ Elective	.....	3
		15

### SEMESTER IV

MGT 210	Small Business Capitalization, Acquisition and Finance.....	3
BUS 234	Business Law.....	3
ECO 202	Principles of Economics II.....	3
+ Elective	.....	3
+++ Elective	.....	3
		15

Minimum Hours Required:..... 60

+ Elective—must be selected from the following:

ART 104	Art Appreciation.....	3
HUM 101	Introduction to the Humanities.....	3
MUS 104	Music Appreciation.....	3
PHI 102	Introduction to Philosophy.....	3
THE 101	Introduction to the Theatre.....	3

+ + Elective—may be selected from the following:

ACC 201	Principles of Accounting I.....	3
MGT 212	Special Problems in Business.....	1
OFC 160	Office Calculating Machines.....	3
OFC 172	Beginning Typing.....	3

+ + + Electives—must be selected from the following:

GOV 201	American Government.....	3
GOV 202	American Government.....	3
HST 101	History of the United States.....	3
HST 102	History of the United States.....	3
SOC 101	Introduction to Sociology.....	3
SOC 102	Social Problems.....	3
HD 105	Basic Process of Interpersonal Relationship.....	3
HD 106	Personal and Social Growth.....	3
ANT 100	Introduction to Anthropology.....	3
PSY 100	Human Sexuality.....	3
PSY 101	Introduction to Psychology.....	3

\*Students may substitute ACC 201 for MGT 157.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# 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 or private firms and agencies. Emphasis in this program is on the development of organizational and management skills in addition to basic office skills.

## CREDIT HOURS

### SEMESTER I

++ OFC 160	Office Calculating Machines....	3
++ OFC 172	Beginning Typing* or	
OFC 173	Intermediate Typing.....	3
BUS 105	Introduction to Business.....	3
ENG 101	Composition I.....	3
MTH 130	Business Mathematics.....	3
+ Elective	.....	3
		<u>18</u>

### SEMESTER II

OFC 173	Intermediate Typing* or	3
OFC 273	Advanced Typing Applications (2)	
OFC 162	Office Procedures.....	3
++ OFC 190	Principles of Word Processing..	4
CIS 105	Introduction to Computer	
	Information Systems.....	3
MGT 136	Principles of Management.....	3
ENG 102	Composition II.....	3
		<u>18-19</u>

### SEMESTER III

OFC 273	Advanced Typing	
	Applications* or	2
+ Elective	.....	(3)
OFC 231	Business Communications.....	3
ACC 131	Bookkeeping I or	
ACC 201	Principles of Accounting.....	3
PSY 131	Applied Psychology and	
	Human Relations or	
PSY 101	Introduction to Psychology.....	3
+ Electives	.....	6
		<u>17-18</u>

### SEMESTER IV

OFC 256	Office Management or	
BUS 237	Organizational Behavior.....	3
SC 101	Introduction to Speech	
	Communication.....	3
+ Electives	.....	6
+++ Elective	.....	3
		<u>15</u>

Minimum Hours Required:..... 68



+ Electives—must be selected from the following:

OFC	Any OFC course may be selected.....	3-4
OFC 803	Cooperative Work Experience.....	3
OFC 804	Cooperative Work Experience.....	4
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 242	Personnel Administration.....	3
CIS 262	Contemporary Topics in Computer	
	Science.....	3
CIS 264	Special Topics in Computer Science.....	4
ECO 201	Principles of Economics I.....	3
SC 105	Fundamentals of Public Speaking.....	3

+ + NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 190 Equivalent to 179, 182 and 185

+ + + Electives—must be selected from the following:

ART 104	Art Appreciation.....	3
HUM 101	Introduction to the Humanities.....	3
MUS 104	Music Appreciation.....	3
PHI 102	Introduction to Philosophy.....	3
THE 101	Introduction to Theatre.....	3

\*Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

## 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.

	CREDIT HOURS
<b>SEMESTER I</b>	
+ + OFC 160 Office Calculating Machines	3
+ + OFC 172 Beginning Typing*	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
+ Electives	7
	<u>19</u>

<b>SEMESTER II</b>	
ACC 131 Bookkeeping I	3
BUS 105 Introduction to Business	3
CIS 105 Introduction to Computer	
Information Systems	3
+ Electives	7
	<u>16</u>

Minimum Hours Required: 35

+ Electives—must be taken from the following:

OFC 103	Speedwriting Theory	4
OFC 106	Speedwriting Dictation and Transcription	4
OFC 159	Beginning Shorthand	4
OFC 162	Office Procedures	3
OFC 190	Principles of Word Processing +	4
OFC 166	Intermediate Shorthand +	4
OFC 173	Intermediate Typing	3
OFC 231	Business Communications	3
OFC 273	Advanced Typing Applications	2
OFC 275	Secretarial Procedures	3
OFC 803	Cooperative Work Experience or	3
OFC 804	Cooperative Work Experience	(4)
ACC 132	Bookkeeping II	3
ACC 201	Principles of Accounting I	3
PSY 101	Introduction to Psychology or	
PSY 131	Applied Psychology and	
	Human Relations	3
MGT 136	Principles of Management	3
BUS 234	Business Law	3
CIS 262	Contemporary Topics in Computer Science	3

+ + NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 166 Equivalent to 187, 188 and 189

OFC 190 Equivalent to 179, 182 and 185

\*Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives listed for the program.

## OFFICE CAREERS— GENERAL OFFICE— ACCOUNTING EMPHASIS

(Certificate)

The General Office Certificate Program with an accounting emphasis is designed to provide the student with a basic working knowledge of bookkeeping concepts and general office procedures.

	CREDIT HOURS
<b>SEMESTER I</b>	
+ + OFC 160 Office Calculating Machines	3
+ + OFC 172 Beginning Typing*	3
ACC 131 Bookkeeping I or	
ACC 201 Principles of Accounting I	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
+ Elective	3
	<u>18</u>

<b>SEMESTER II</b>	
**ACC 132 Bookkeeping II or	
+ Elective	3
BUS 105 Introduction to Business	3
CIS 105 Introduction to Computer	
Information Systems	3
+ Electives	8
	<u>17</u>

Minimum Hours Required: 35

+ Electives—must be selected from the following:

OFC 103	Speedwriting Theory	4
OFC 106	Speedwriting Dictation and Transcription	4
OFC 159	Beginning Shorthand	4
OFC 162	Office Procedures	3
OFC 190	Principles of Word Processing +	4
OFC 166	Intermediate Shorthand +	4
OFC 173	Intermediate Typing	3
OFC 231	Business Communications	3
OFC 273	Advanced Typing Applications	2
OFC 275	Secretarial Procedures	3
OFC 803	Cooperative Work Experience or	3
OFC 804	Cooperative Work Experience	(4)
ACC 132	Bookkeeping II	3
ACC 201	Principles of Accounting I	3
PSY 101	Introduction to Psychology or	
PSY 131	Applied Psychology and	
	Human Relations	3
MGT 136	Principles of Management	3
BUS 234	Business Law	3
CIS 262	Contemporary Topics in Computer Science	3

+ + NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 166 Equivalent to 187, 188 and 189

OFC 190 Equivalent to 179, 182 and 185

\*Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives listed for the program.

\*\*Required if ACC 131 taken previously.

# OFFICE CAREERS— GENERAL OFFICE— OFFICE CLERICAL EMPHASIS

(Certificate)

The General Office Certificate Program with a clerical emphasis is designed to provide the student with basic working knowledge of office procedures.

		CREDIT HOURS
<b>SEMESTER I</b>		
+ + OFC 160	Office Calculating Machines.....	3
OFC 162	Office Procedures.....	3
+ + OFC 172	Beginning Typing*.....	3
COM 131	Applied Communications or Composition I.....	3
ENG 101	Composition I.....	3
MTH 130	Business Mathematics.....	3
+ Elective	.....	3
		<b>18</b>

<b>SEMESTER II</b>		
+ + OFC 190	Principles of Word Processing...	4
OFC 173	Intermediate Typing*.....	3
OFC 231	Business Communications.....	3
ACC 131	Bookkeeping I.....	3
BUS 105	Introduction to Business.....	3
CIS 105	Introduction to Computer Information Systems.....	3
		<b>19</b>

Minimum Hours Required:..... 37

+ Electives—must be selected from the following:

OFC 103	Speedwriting Theory.....	4
OFC 106	Speedwriting Dictation and Transcription.....	4
OFC 159	Beginning Shorthand.....	4
OFC 166	Intermediate Shorthand + +.....	4
OFC 231	Business Communications.....	3
OFC 273	Advanced Typing Applications.....	2
OFC 275	Secretarial Procedures.....	3
OFC 803	Cooperative Work Experience or Cooperative Work Experience.....	3
OFC 804	Cooperative Work Experience.....	(4)
ACC 132	Bookkeeping II.....	3
ACC 201	Principles of Accounting I.....	3
PSY 101	Introduction to Psychology or Applied Psychology and Human Relations.....	3
PSY 131	Applied Psychology and Human Relations.....	3
MGT 136	Principles of Management.....	3
BUS 234	Business Law.....	3
CIS 262	Contemporary Topics in Computer Science.....	3

+ + NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 166 Equivalent to 187, 188 and 189

OFC 190 Equivalent to 179, 182 and 185

\*Students who can demonstrate proficiency by previous training, experience, or placement tests may substitute a course from the electives listed for the program.



# 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.

## CREDIT HOURS

### SEMESTER I

OFC 159	Beginning Shorthand or Speedwriting	4
+ + OFC 103	Office Calculating Machines	3
+ + OFC 172	Beginning Typing* or Intermediate Typing	3
OFC 173	Composition I	3
ENG 101	Business Mathematics	3
MTH 130		
		16

### SEMESTER II

+ + OFC 166	Intermediate Shorthand or Speedwriting Dictation and Transcription	4
OFC 106		
OFC 173	Intermediate Typing* or	3
OFC 273	Advanced Typing Applications (2)	3
OFC 162	Office Procedures	3
ACC 131	Bookkeeping I or	
ACC 201	Principles of Accounting I	3
BUS 105	Introduction to Business	3
ENG 102	Composition II	3
		18-19

### SEMESTER III

+ + OFC 190	Principles of Word Processing	4
OFC 167	Legal Terminology and Transcription	3
OFC 231	Business Communications	3
OFC 273	Advanced Typing Applications* or	2
+ Elective		(3)
CIS 105	Introduction to Computer Information Systems	3
		15-16

### SEMESTER IV

OFC 282	Word Processing Applications**	1
OFC 274	Legal Secretarial Procedures	3
OFC 275	Secretarial Procedures or	3
OFC 803	Cooperative Work Experience or	
OFC 804	Cooperative Work Experience	(4)

OFC 285	Applied Machine Transcription	1
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology	3
SC 101	Introduction to Speech Communication	3
+ + + Elective		3
		17-18

Minimum Hours Required: 66

+ Electives—must be selected from the following:

OFC	Any OFC Course may be selected	
OFC 803/804	Cooperative Work Experience	3-4
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
CIS 262	Contemporary Topics in Computer Science	3
CIS 264	Special Topics in Computer Science and Data Processing	4
ECO 201	Principles of Economics I	3
MGT 136	Principles of Management	3
MGT 242	Personnel Administration	3
SC 105	Fundamentals of Public Speaking	3

++ NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 166 Equivalent to 187, 188 and 189

OFC 190 Equivalent to 179, 182 and 185

+ + + Electives—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to Theatre	3

\*Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests.

\*\*Repeatable for credit using different equipment

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# OFFICE CAREERS— PROFESSIONAL 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.

	CREDIT HOURS
<b>SEMESTER I</b>	
++ OFC 160 Office Calculating Machines....	3
OFC 159 Beginning Shorthand or	
OFC 103 Speedwriting.....	4
++ OFC 172 Beginning Typing* or	
OFC 173 Intermediate Typing.....	3
ENG 101 Composition I.....	3
MTH 130 Business Mathematics.....	3
	<b>16</b>
<b>SEMESTER II</b>	
++ OFC 166 Intermediate Shorthand or	
OFC 106 Speedwriting Dictation and	
Transcription.....	4
OFC 173 Intermediate Typing* or	3
OFC 273 Advanced Typing Applications (2)	
OFC 162 Office Procedures.....	3
ACC 131 Bookkeeping I or	
ACC 201 Principles of Accounting I.....	3
BUS 105 Introduction to Business.....	3
ENG 102 Composition II.....	3
	<b>18-19</b>
<b>SEMESTER III</b>	
++ OFC 190 Principles of Word Processing..	4
OFC 231 Business Communications.....	3
OFC 273 Advanced Typing Applications*	
or.....	2
+ Elective (3)	
CIS 105 Introduction to Computer	
Information Systems.....	3
PSY 131 Applied Psychology and	
Human Relations or	
PSY 101 Introduction to Psychology.....	3
	<b>15-16</b>
<b>SEMESTER IV</b>	
OFC 282 Word Processing Applications**..	1
OFC 275 Secretarial Procedures or	
OFC 803 Cooperative Work Experience or	3
OFC 804 Cooperative Work Experience.. (4)	
OFC 285 Applied Machine Transcription..	1
SC 101 Introduction to Speech	
Communication.....	3
+++ Elective.....	3
+ Elective.....	6-7
	<b>17-18</b>
Minimum Hours Required:.....	<b>66</b>

+ Electives—must be selected from the following:

OFC	Any OFC Course may be selected	
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
CIS 262	Contemporary Topics in Computer Science.....	3
CIS 264	Special Topics in Computer Science and	
	Data Processing.....	4
ECO 201	Principles of Economics I.....	3
MGT 136	Principles of Management.....	3
MGT 242	Personnel Administration.....	3
SC 105	Fundamentals of Public Speaking.....	3

++ NOTE:

OFC 160 Equivalent to 192, 193 and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 166 Equivalent to 187, 188 and 189

OFC 190 Equivalent to 179, 182 and 185

+++ Electives—must be selected from the following:

ART 104	Art Appreciation.....	3
HUM 101	Introduction to the Humanities.....	3
MUS 104	Music Appreciation.....	3
PHI 102	Introduction to Philosophy.....	3
THE 101	Introduction to Theatre.....	3

\*Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests.

\*\*Repeatable for credit using different equipment

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.



# OFFICE INFORMATION SYSTEMS SPECIALIST

(Associate Degree)

This program introduces the skills for operators, supervisors, and managers in automated office environments. Office Information Systems involves the use of automated equipment and techniques that include speed gathering, processing, storing, and distributing printed materials.

This program develops the skills to work with a group of principals as a part of a team under the direction of an administrative support supervisor/information systems manager. The specialist handles transcription and manipulation of data using a variety of software applications and provides special secretarial services.

	CREDIT HOURS
<b>SEMESTER I</b>	
*OFC 160 Office Calculating Machines	3
*OFC 173 Intermediate Typing	3
OFC 179 Office Information Systems Concepts	2
OFC 182 Introduction to Word Processing Equipment	1
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
	<b>15</b>

<b>SEMESTER II</b>	
OFC 162 Office Procedures	3
*OFC 185 Basic Machine Transcription	1
*OFC 273 Advanced Typing Applications	2
***OFC 282 Word Processing Applications	1
ACC 131 Bookkeeping I or Principles of Accounting	3
CIS 105 Introduction to Computer Information Systems	3
ENG 102 Composition II	3
	<b>16</b>

<b>SEMESTER III</b>	
OFC 150 Automated Filing Procedures	3
OFC 231 Business Communications	3
***OFC 283 Specialized Software	1
OFC 285 Applied Machine Transcription	1
PSY 131 Applied Psychology and Human Relations or Basic Processes of Interpersonal Relationships	3
HD 105 Introduction to Speech Communication	3
SC 101	3
+ Elective	3
	<b>17</b>

<b>SEMESTER IV</b>	
OFC 256 Office Management	3
OFC 803-804 Cooperative Workd Experience or Elective(s)	3-4
CIS 160 Data Communications	3
+ Electives	3
++ Electives	3
	<b>15-16</b>

Minimum Hours Required: 63

+ Electives—must be selected from the following:

OFC 143 Contemporary Topics in Office Careers	1
OFC 182 Introduction to Word Processing Equipment***	1
OFC 282 Word Processing Applications***	1
OFC 283 Specialized Software	1

+ + Electives—must be selected from the following:

BUS 105 Introduction to Business	3
BUS 234 Business Law	3
MGT 136 Principles of Management	3

\*Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests.

\*\*Note:

OFC 160 Equivalent to 192, 193, and 194

OFC 172 Equivalent to 176, 177 and 178

OFC 190 Equivalent to 179, 182, and 185

\*\*\*Must be repeated for credit two additional times using different emphasis/equipment/software.

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# 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.

## CREDIT HOURS

### SEMESTER I

WE 111	Oxyfuel I	2
WE 112	Oxyfuel II	2
WE 113	Shielded Metal Arc Welding I	2
WE 114	Shielded Metal Arc Welding II	2
DFT 182	Technician Drafting	2
MTH 195	Technical Mathematics I	3
COM 131	Applied Communications or	
ENG 101	Composition I	3

16

### SEMESTER II

WE 115	Shielded Metal Arc Welding II	4
WE 117	General Metal Layout	3
WE 118	Welding Inspection and Quality Control	4
PSY 131	Applied Psychology and Human Relations	3
WE 703	Cooperative Work Experience or	
+ Elective		3
SC 101	Introduction to Speech Communication	3

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### SEMESTER III

WE 211	Gas Tungsten Arc Welding I	2
WE 212	Gas Tungsten Arc Welding II	2
WE 214	Gas Metal Arc Welding I	2
WE 215	Gas Metal Arc Welding II	2
WE 217	Basic Welding Metallurgy	3
PHY 131	Applied Physics	4

15

### SEMESTER IV

WE 116	Shielded Metal Arc Welding IV	4
WE 213	Gas Tungsten Arc Welding III	4
WE 216	Gas Metal Arc Welding III	4
WE 219	Welding Design	3
+ + Elective		3

18

Minimum Hours Required: 65

+ Electives—must be selected from the following:

WE 218	Applied Welding Metallurgy	3
WE 221	Special Welding Applications	1
WE 222	Special Welding Applications	2
WE 223	Special Welding Applications	3
MTH 111	Mathematics for Business and Economics I	3

+ + Electives—must be selected from the following:

ACC 131	Bookkeeping I	3
BUS 105	Introduction to Business	3
CIS 105	Introduction to Computer Information Systems	3
GVT 201	American Government	3
HST 101	History of the United States	3
HD 105	Basic Processes of Interpersonal Relationships	3
HD 106	Personal and Social Growth	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3

NOTE: Students enrolling in this program who plan to transfer to a four-year institution should consult an advisor or counselor regarding transfer requirements and the transferability of these courses to the four-year institution of their choice.

# WELDING TECHNOLOGY

(Certificate)

## CREDIT HOURS

### SEMESTER I

WE 111	Oxyfuel I	2
WE 112	Oxyfuel II	2
WE 113	Shielded Metal Arc Welding I	2
WE 114	Shielded Metal Arc Welding II	2
WE 211	Gas Tungsten Arc Welding I	2
WE 212	Gas Tungsten Arc Welding II	2
WE 214	Gas Metal Arc Welding I	2
WE 215	Gas Metal Arc Welding II	2

16

### SEMESTER II

WE 115	Shielded Metal Arc Welding III	4
WE 116	Shielded Metal Arc Welding IV	4
WE 117	General Metal Layout	3
*WE 213	Gas Tungsten Arc Welding III	4
*WE 216	Gas Metal Arc Welding III	4

19

Minimum Hours Required: 35

\* WE 704 Cooperative Work Experience may be substituted for WE 213 or WE 216.

# Course Descriptions

## Including General Education and Career Program Courses

- All courses listed in the District catalog are not available at every college. The District catalog contains descriptions of both General Education courses and Technical/Occupational courses offered collectively by the seven colleges of the Dallas County Community College District. The listing is alphabetical by course subject title.
- Each campus within the District publishes a catalog which reflects courses and programs that are offered on that campus.
- All courses listed in this catalog may not be offered during the current year. It is suggested that students plan their schedules with the help of a college counselor well in advance of registration.

## Understanding The Course Descriptions

Abbreviation on the general program area name (in this case, "Biology").

Course Number

Name of the Course

Credit Hours - When you complete a course, you are awarded a certain number of credit hours. If you are in a degree program, a specified number of credit hours is required for graduation. Counselors are available to help you determine your course and credit hour requirements.

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

**(BIO) 221 Anatomy And Physiology I (4)**  
Prerequisite: Biology 102 or demonstrated competence approved by 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: (3 Lec., 3 Lab.)

A brief paragraph describing the course.

Laboratory Fee - A charge for equipment or services in addition to tuition.

Lecture/Lab - The number of hours that you will spend in a classroom (Lecture) and/or Laboratory each week during the semester. In this example, you would spend three hours in the classroom and three hours in the lab each week. Some course descriptions show the total number of "contact hours" for the entire semester. *Contact hours* are the number of hours you are in contact with the instructor or on-the-job supervisor during the entire semester.

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 be waived only by the appropriate division chairperson.

# ACCOUNTING

## **(ACC) 131 Bookkeeping I (3)**

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. (3 Lec.)

## **(ACC) 132 Bookkeeping II (3)**

Prerequisite: Accounting 131. This course covers accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations is introduced. (3 Lec.)

## **(ACC) 201 Principles of Accounting I (3)**

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.)* (3 Lec.)



## **(ACC) 202 Principles Of Accounting II (3)**

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. (3 Lec.)

## **(ACC) 203 Intermediate Accounting I (3)**

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. (3 Lec.)

## **(ACC) 204 Managerial Accounting (3)**

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. (3 Lec.)

## **(ACC) 205 Business Finance (3)**

Prerequisites: Economics 201 or 202 and Accounting 201. This course focuses on the financial structure in the free enterprise system. Topics include interest rates, value analysis, the financing of business firms and government, and security markets. Financial requirements for decision-making and capital formation are analyzed. (3 Lec.)

## **(ACC) 207 Intermediate Accounting II (3)**

This course continues Accounting 203. Principles and problems in fixed liabilities and capital stock are examined. Equities, business combinations and the analysis and interpretation of supplementary statements are also included. (3 Lec.)

## **(ACC) 238 Cost Accounting (3)**

Prerequisite: Accounting 202. The theory and practice of accounting for a manufacturing concern are presented. The measurement and control of material, labor, and fac-

tory overhead are studied. Budget, variance analysis, standard costs, and joint and by-product costing are also included. (3 Lec.)

## **(ACC) 239 Income Tax Accounting (3)**

Prerequisite: Accounting 202 or demonstrated competence approved by 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. (3 Lec.)

## **(ACC) 250 Microcomputer-Based Accounting Applications (3)**

Prerequisites: Accounting 202 and Computer Information Systems 105. This course is designed to provide students with an overview of microcomputer-based accounting systems for small businesses. Actual "hands-on" experience will be provided utilizing systems for general ledger, accounts receivable, accounts payable, and payroll. Additional study may be devoted to financial planning and budgeting applications using electronic worksheet programs. Laboratory fee. (2 Lec., 2 Lab.)

## **(ACC) 703, 713, 803, 813 Cooperative Work Experience (3)** (See Cooperative Work Experience). (1 Lec., 15 Lab.)

## **(ACC) 704, 714, 804, 814 Cooperative Work Experience (4)** (See Cooperative Work Experience). (1 Lec., 20 Lab.)



# ANTHROPOLOGY

## (ANT) 100 Introduction To Anthropology (3)

This course surveys the origin of mankind involving the processes of physical and cultural evolution, ancient man, and preliterate man. Attention is centered on fossil evidence, physiology and family/group roles and status. (3 Lec.)

## (ANT) 101 Cultural Anthropology (3)

Cultures of the world are surveyed, and emphasis is 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.) (3 Lec.)



## (ANT) 110 The Heritage Of Mexico (3)

This course (cross-listed as History 110) is taught in two parts each semester. The first part of the course deals with the archeology 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 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. (3 Lec.)

# ART

## (ART) 104 Art Appreciation (3)

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. (3 Lec.)

## (ART) 105 Survey Of Art History (3)

This course covers the history of art from prehistoric time through the Renaissance. It explores the culture, geographical, and personal influences on art styles. (3 Lec.)

## (ART) 106 Survey Of Art History (3)

This course covers the history of art from the Baroque period through the present. It explores the cultural, geographical and personal influences on art styles. (3 Lec.)

## (ART) 110 Design I (3)

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. (2 Lec., 4 Lab.)

## (ART) 111 Design II (3)

Basic concepts of design with three-dimensional materials are explored. The use of mass, space, movement and texture is considered. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 114 Drawing I (3)

This beginning course investigates various media, techniques and subjects. It explores perceptual and descriptive possibilities and considers drawing as a developmental process as well as an end in itself. (2 Lec., 4 Lab.)

## (ART) 115 Drawing II (3)

Prerequisite: Art 114. This course is an expansion of Art 114. It stresses the expressive and conceptual aspects of drawing, including advanced compositional arrangements, a range of wet and dry media, and the development of an individual approach to theme and content. (2 Lec., 4 Lab.)

## (ART) 116 Jewelry Design and Construction (3)

This course explores the uses of metal in design, basic fabrication techniques in metal, bezel setting of stones, and simple casting. Emphasis is on original design. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 117 Advanced Jewelry Design and Construction (3)

Prerequisite: Art 116. This course continues Art 116. Advanced fabrication, lost wax casting, setting of faceted stones, and forging and shaping of metal, including repousse and chasing are presented. Emphasis is on original design. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 199 Problems in Contemporary Art (1)

Area artists, critics and art educators speak with students about the work exhibited in the gallery and discuss current art styles and movements. They also discuss specific aspects of being artists in contemporary society. This course may be repeated for credit. (1 Lec.)

## (ART) 201 Drawing III (3)

Prerequisites: Art 110, Art 111, Art 115, Sophomore standing or demonstrated competence approved by the instructor. This course covers the analytic and expressive drawing of the human figure. Movement and volume are stressed. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 202 Drawing IV (3)

Prerequisites: Art 201, Sophomore standing or demonstrated competence approved by the instructor. This course continues Art 201. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 205 Painting I (3)

Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by 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. (2 Lec., 4 Lab.)

## (ART) 206 Painting II (3)

Prerequisite: Art 205. This course continues Art 205. Emphasis is on individual expression. (2 Lec., 4 Lab.)

## (ART) 208 Sculpture I (3)

Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by the instructor. Various sculptural approaches are explored. Different media and techniques are used. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 209 Sculpture II (3)

Prerequisite: Art 208. This course continues Art 208. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

## (ART) 215 Ceramics I (3)

Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by 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. (2 Lec., 4 Lab.)

**(ART) 216 Ceramics II (3)**

Prerequisite: Art 215 or demonstrated competence approved by the instructor. Glaze technology is studied. Advanced problems in the creation of artistic and practical ceramic ware. Laboratory fee. (2 Lec., 4 Lab.)

**(ART) 217 Watercolor I (3)**

Prerequisites: Art 110, Art 111 and Art 115 or demonstrated competence approved by the instructor. This course explores studio techniques in water base media. Emphasis is placed on exploration of a variety of modes and techniques as a means to original expression. (2 Lec., 4 Lab.)

**(ART) 218 Watercolor II (3)**

Prerequisite: Art 217. This course continues the development of skills in water base media. (2 Lec., 4 Lab.)

## ASTRONOMY

**(AST) 101 Descriptive Astronomy (3)**

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.) (3 Lec.)

**(AST) 102 General Astronomy (3)**

Stellar astronomy is emphasized. Topics include a study of the sun, the properties of stars, star clusters, nebulae, interstellar gas and dust, the Milky Way Galaxy and external galaxies. (3 Lec.)

## AVIATION TECHNOLOGY

**(AVT) 110 Introduction To Aviation (3)**

This course introduces various aspects of the aviation industry. It covers the history, development, and advances in aircraft from balloon flight to the supersonic transport. The industry's economic and sociological effects on people and communities are also included. Special emphasis is on the origin and growth of airlines and the aviation industry. (3 Lec.)

**(AVT) 121 Ground School Private (3)**

This course includes the study of Federal Aviation Regulations, flight dynamics, meteorology, navigation, use of the radio, and general service of aircraft. The course is designed to fulfill the Ground School Requirements for the FAA Private Pilot Certificate. (3 Lec.)

**(AVT) 122 Aviation Law (3)**

Prerequisite: Aviation Technology 110 or concurrent enrollment in Air Transportation. Procedural laws and regulations are studied. Local, national, and international procedures are included as well as those relating both to public and private sectors of air commerce. Topics include the development of aviation law, regulatory agencies, and quasi-official study and advisory groups. Special emphasis is on flight procedures (flight plans), ports of entry, customs, clearances, contraband, quarantines, aviation hazards, and liabilities. The present legal structure and possible future changes are covered, including reciprocity agreements. (3 Lec.)

**(AVT) 123 Ground School Commercial (3)**

Prerequisite: Private Pilot Certificate. This course is an in-depth analysis of all topics covered in the Commercial Pilot written examination. Emphasis is on problem development and solutions. Advanced exercises are included in the areas of aircraft operation, meteorology, navigation, communications, theory and hazards of attitude instrument flight, flight physiology, and emergency procedures. This course is designed to fulfill the Ground School Requirements of the FAA for the Commercial Pilot Certificate. (3 Lec.)

**(AVT) 128 Aero Engines And Systems (3)**

Prerequisite: Credit or concurrent enrollment in Aviation Technology 110. Electronics Technology 235, or the equivalent. Basic power plant types and principles of operation are presented. Reciprocating, rotary, jet, and rocket engines are included. Also covered are configurations, such as in-line, radial, vee and horizontally opposed, turbo-prop, turbo-jet, fan-jet, and ram-jet. Also included are numerous systems, such as the fuel ignition, electrical, environmental, lubrication, hydraulics, pneumatics, fire detection and extinguishing, cooling, tachometer, monitoring, manual control, and power boosted systems. (3 Lec.)

**(AVT) 135 Flight Basic (2)**

This course provides 25 hours of flight instruction (15 hours dual, 10 hours solo flight). Two hours in the synthetic flight trainer are required. A current Second-Class Medical Certificate is required. Flight and laboratory fee. (9 Lab., 25 Flight)

**(AVT) 137 Flight Private Pilot (1)**

This course provides 20 hours of flight instruction (10 hours dual and 10 hours solo flight). Pre-flight instruction and briefing are included. Students receive credit for the course upon completion of the flight prerequisite for the Private Pilot Flight Examination. One hour in the synthetic flight trainer is required. Flight and simulator fee. (24 Contact Hours)

**(AVT) 210 Federal Aviation Regulations, Airspace And Air Traffic Control (3)**

It is recommended that this course be taken concurrently with one of the ground school courses. This course is an in-depth study of Federal Aviation Regulations, Air Traffic Control Procedures, the National Airspace System, and NTSB Regulations. Rated pilots may take this course to prepare for the 24-month flight review. (3 Lec.)

**(AVT) 212 Airport Management (3)**

Prerequisites: Required core courses and Management 136. The major functions of airport management are presented. Topics include the adequacy of facilities and services, organization, personnel, maintenance, planning and zoning, operations, revenues and expenses, public relations, ecology, and safety. A study of the socio-economic effect of airports on the communities they serve is also covered. (3 Lec.)

**(AVT) 220 Aero Dynamics (3)**

Prerequisite: Credit or concurrent enrollment in Mathematics 196. The aeronautical applications of physical laws are studied. Areas considered include gravitational laws, forces and stresses, Bernoulli's principle, gyroscopic principles, and velocity-sonic relationships. The dynamics of airfoils, high efficiency lift devices, energy conversion to reactive forces related to aerobatics, and precision flight are also covered. (3 Lec.)

**(AVT) 221 Advanced Navigation (3)**

Prerequisite: Credit or concurrent enrollment in Aviation Technology 226 or demonstrated competence approved by the instructor. This course covers flight planning. Consideration is given to adverse atmospheric conditions, navigational capabilities, and safety. The course also includes the analysis of atmospheric maps, charts, and weather radar. The interpretation and use of all operational data are also presented. Laboratory fee. (3 Lec.)

**(AVT) 223 Airline Management (3)**

Prerequisites: Required core courses and Management 136. This course covers the organization, operation, and management of an airline. Topics include planning, facility requirements, financing, aircraft selection criteria, route feasibility studies, market and passenger trends, and population trends affecting load factors. Problems unique to airline operations are explored. (3 Lec.)

**(AVT) 224 Ground School Instrument (3)**

Prerequisite: Private or Commercial Pilot Certificate. This course presents aircraft attitude control, flight procedures, and maneuvering by reference solely to cockpit instruments. Completion of this course will qualify the student to take the FAA Instrument Rating Written Examination. (3 Lec.)

**(AVT) 225 Aviation Marketing (3)**

Prerequisites: Required core courses. The significance and functions of marketing are stressed from the airline viewpoint. Topics include market research, sales, advertising and promotion concepts, traffic, demand analysis, and price determination theory. (3 Lec.)

**(AVT) 226 Meteorology (3)**

Basic concepts of meteorology are studied. Weather data and measuring devices are covered. Topics include weather maps and symbols, U.S. Weather Bureau documents, structure and general circulation of the atmosphere, theories of air mass, fronts, pressure areas, temperature gradients and inversions, violent atmospheric activities, and ecological considerations. (3 Lec.)

**(AVT) 227 Flight Commercial I (2)**

Prerequisite: Private Pilot Certificate. This course provides 30 hours of flight instruction (10 hours dual and 20 hours solo flight) to apply toward the Commercial Pilot Certificate. Pre-flight instruction and briefing are included. A current Second-Class Medical Certificate is required. Flight and laboratory fee. (8 Lab., 30 Flight)

**(AVT) 228 Flight Commercial II (3)**

Prerequisite: Aviation Technology 227 and concurrent enrollment in Aviation Technology 123. This course provides 46 hours of flight instruction (10 hours dual instru-

ment instruction, 6 hours dual instruction, and 30 hours of solo flight) to apply toward the Commercial Pilot Certificate. Pre-flight instruction and briefing are included, as are 5 hours of night flight. Flight and laboratory fee. (8 Lab., 46 Flight)

**(AVT) 231 Flight Commercial III - Instrument (3)**

Prerequisite: Aviation Technology 123 and 228. This course provides 46 hours instrument flight instruction (6 hours dual flight, 30 hours solo flight, and 10 hours dual and practice flight in a more sophisticated aircraft) to fulfill flight law requirements for the Commercial Pilot Certificate. Pre-flight instruction and briefing are included. Students receive course credit upon completion of the flight prerequisite to the Commercial Pilot Flight Examination. Flight fee. (4 Lab., 46 Flight)

**(AVT) 232 Flight Commercial IV (3)**

Prerequisite: Private or Commercial Pilot Certificate. This course provides 45 hours of flight instruction. Pre-flight instruction and briefing are included. Flight fee. (46 Contact Hours)

**(AVT) 249 Air Transportation, Traffic And Cargo (3)**

Prerequisites: Required core courses and credit or concurrent enrollment in Management 136. Transportation methods of passengers and cargo are examined. The need, nature and structure of the air transportation segment of the aviation industry are studied. Emphasis is on the diagnosis and solution of problems at terminals. Topics include air cargo, air mail, air express, air freight, air taxi, air carrier, commuter, business and pleasure. (3 Lec.)

**(AVT) 250 Flight Instructor Ground School (2)**

Prerequisite: Commercial Pilot Certificate or Private Pilot Certificate with 200 hours logged flight time. Principles of flight and ground instruction are presented. Instructional techniques, analysis of maneuvers, and Federal Aviation Regulations are included. Completion of this course should qualify the student to pass the Flight Instructor Written Examination. (2 Lec., 32 Contact Hours)

**(AVT) 251 Flight Instructor Airplane/Single Or Multi-Engine (2)**

Prerequisite: Commercial Pilot Certificate or Private Pilot Certificate with 200 hours logged flight time. This course focuses on the science of flight instruction. Evaluation of student performance and maneuver analysis are included. The required instructional flight disciplines are covered in order to qualify students for the FAA Flight Instructor Rating. Simulator fee. (40 Contact Hours)

**(AVT) 252 Instrument Flight Instructor Ground School (3)**

Prerequisites: Instrument Rating and Commercial Pilot Certificate; pass written examination on airspace and regulations or concurrent enrollment in Aviation Technology 210. Instructional techniques of the synthetic flight trainer are presented. Included are instrument flight rules, instrument charts, instrument procedures, and the use of aircraft instruments for instrument flight. Emphasis is on developing instructional techniques and materials. The course is designed to prepare students for the FAA Instrument Flight Instructor Flight Test and Written Test. Students will be required to conduct instruction in Synthetic Ground Trainers. (48 Contact Hours)



**(AVT) 253 Flight Instructor-Airplane Instrument (1)**

Prerequisite: Certified Flight Instructor Rating. This course includes 20 hours of flight training in the science of flight instruction including evaluation of student performance and maneuver analysis. The required flight disciplines that qualify the student for the FAA Flight Instructor-Airplane Instrument Rating are covered. Flight fee. (20 Contact Hours)

**(AVT) 254 Flight Advanced I (1)**

Prerequisite: A Private Pilot Certificate or a Commercial Pilot Certificate. This course includes 10 hours of flight instruction. All flying is in modern twin-engine aircraft and is designed to give the advanced pilot a greater depth of aircraft experience. The course includes pre-flight instruction and briefing. It leads to the FAA Multi-Engine Pilot Rating. Flight fee. (16 Contact Hours)

**(AVT) 255 Type Rating Turbo Jet Ground School (3)**

Prerequisites: Commercial Pilot Certificate and Instrument Rating. This course will provide an analysis of normal, abnormal and emergency operation of the flight control, engine, fuel, electrical, pneumatic, navigation and auxiliary systems and use of the manufacturer's performance data for a specific make and model (type) of small, multi-engine, turbo-jet powered airplane. A review of procedures related to pre-flight, takeoffs, enroute flight, landings, engine-out procedures, no-flap landings, collision avoidance and wake turbulence avoidance will also be included. (48 Contact Hours)

**(AVT) 256 Flight Advanced II-Jet Type Rating (1)**

Prerequisites: Commercial Pilot Certificate and Instrument Rating. This course includes ten hours of flight instruction, and ten hours of pre- and post-flight instruction. All flying is in a small multi-engine, turbo-jet powered airplane. It leads to the FAA Multi-Engine Jet airplane type rating. Flight fee. (13 Contact Hours)

**(AVT) 261 Aircraft Dispatcher I (3)**

This course includes a survey of FAA regulations and duties of an aircraft dispatcher plus basic flight planning for transport category aircraft. (48 Contact Hours)

**(AVT) 262 Practical Dispatching (4)**

Prerequisite: Aviation Technology 261. The content of this course is described in the current FAA Aircraft Dispatcher Circular. The content is designed to prepare the student for the FAA written exam for aircraft dispatcher. Ten hours are required in the simulated flight trainer. (Simulated instrument flight hours can be accumulated both on and off campus but must be verified by the instructor). Simulator fee. (58 Contact Hours)

**(AVT) 263 Flight Engineer Ground School (3)**

Prerequisites: Aviation Technology 261 and Aviation Technology 262 or the equivalent experience and/or credentials. This course includes FAA regulations, flight theory and aerodynamics, basic meteorology with respect to engine operations, center of gravity computations, airplane systems and equipment, and normal and emergency operating procedures. This information prepares the student for the flight engineer's written tests. Specific emphasis is placed on the Boeing 727 and Boeing 707 as aircraft which are used for flight engineer training by civil United States air carriers. (48 Contact Hours)

**(AVT) 264 Air Transport Pilot Ground School (3)**

Prerequisites: Aviation Technology 261 and Aviation Technology 262 or the equivalent experience and/or credentials. This course is designed to prepare the student for the Air Transport Pilot Written Test and includes operations of air carrier aircraft, navigation by instruments, the general system and material relative to weather information collection and dissemination, meteorology, weather conditions, air navigation facilities, airplane weather observations and influence of terrain on meteorological conditions, radio communications, and basic principles of loading and weight distribution. (48 Contact Hours)

**(AVT) 270 Orientation To Air Traffic Control (5)**

This course is designed to acquaint new employees with the FAA organization, the options within the air traffic service, and the emergency readiness requirements. It provides a basic orientation to the history, structure, and functions of the FAA with emphasis on air traffic service. National, local, and individual policies and obligations are also presented. (80 Contact Hours)

**(AVT) 272 Aircraft Types And Characteristics/Air Traffic Control Communications (2)**

This course is designed to introduce developmental controllers to the information necessary to identify the types of aircraft by name or model by their physical characteristics and to state the normal range of operating speeds, altitudes, the weight class and category, as well as developing the ability to identify the procedures, phraseology, and discipline pertaining to radio communications in accordance with FCC regulations. Emergency communications and visual communications used by air traffic control facilities are also presented. (32 Contact Hours)

**(AVT) 274 Air Traffic Computer Operations (3)**

This course is designed to train the student to operate the components of the central computer complex in an enroute air traffic control center and includes computer operations, input and output devices and their operating characteristics and message format, content, and computer responses. (48 Contact Hours)

**(AVT) 701, 711, 801, 811 Cooperative Work Experience (1)**  
(See Cooperative Work Experience). (1 Lec., 5 Lab.)**(AVT) 702, 712, 802, 812 Cooperative Work Experience (2)**  
(See Cooperative Work Experience). (1 Lec., 10 Lab.)**(AVT) 703, 713, 803, 813 Cooperative Work Experience (3)**  
(See Cooperative Work Experience). (1 Lec., 15 Lab.)**(AVT) 704, 714, 804, 814 Cooperative Work Experience (4)**  
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

## AVIONICS TECHNOLOGY

**(AV) 129 Introduction To Aircraft Electronic Systems (3)**

This course relates aircraft electronic systems to aircraft flight and navigation. Emphasis is on the operation and function of the electronic systems. The laboratory requirements include demonstrations of the operation of the systems and the use of some ramp test equipment. Laboratory fee. (2 Lec., 2 Lab.)

#### **(AV) 132 Aircraft Electrical And Electronic Systems Installation (4)**

Prerequisite: Avionics Technology 129. Suggested pre- or co-requisites: Electronics Technology 191 or Electronics Technology 135. This is a course of study and practical experience in the installing of avionic systems in aircraft, mounting of electronic equipment, construction and installation of electrical wiring and cables, proper use of tools, selection of materials, and accepted methods and procedures to insure aircraft safety, mechanical integrity, electrical reliability, and compliance with applicable FAA regulations. Laboratory fee. (3 Lec., 3 Lab.)

#### **(AV) 235 Operational Testing Of Aircraft Electronic Systems (4)**

Prerequisite: Avionics Technology 129. Suggested pre- or co-requisites: Electronics Technology 191 or Electronics Technology 135. This course integrates technical drawing interpretation, wiring interface checkout and the application of ramp test equipment in common usage. In the laboratory, the student will perform functional checks of aircraft electrical and electronic systems using appropriate procedures for determining the operating condition of the equipment and techniques for correcting equipment malfunctions. The students should gain practical experience in avionics equipment in the aircraft and on the bench. Laboratory fee. (3 Lec., 3 Lab.)

#### **(AV) 701, 711, 801, 811 Cooperative Work Experience (1)** (See Cooperative Work Experience). (1 Lec., 5 Lab.)

#### **(AV) 702, 712, 802, 812 Cooperative Work Experience (2)** (See Cooperative Work Experience). (1 Lec., 10 Lab.)

#### **(AV) 703, 713, 803, 813 Cooperative Work Experience (3)** (See Cooperative Work Experience). (1 Lec., 15 Lab.)

#### **(AV) 704, 714, 804, 814 Cooperative Work Experience (4)** (See Cooperative Work Experience). (1 Lec., 20 Lab.)

## **BIOLOGY**

#### **(BIO) 101 General Biology (4)**

This course is for science and science-related majors. Topics include the structure and function of cells, tissues and organ systems in plants and animals. Laboratory fee. (3 Lec., 3 Lab.)

#### **(BIO) 102 General Biology (4)**

Prerequisite: Biology 101. This course is for science and science-related majors. It 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. (3 Lec., 3 Lab.)

#### **(BIO) 115 Biological Science (4)**

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.) (3 Lec., 3 Lab.)

#### **(BIO) 116 Biological Science (4)**

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. (3 Lec., 3 Lab.)

#### **(BIO) 120 Introduction To Human Anatomy And Physiology (4)**

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. (3 Lec., 3 Lab.)

#### **(BIO) 121 Introduction To Human Anatomy And Physiology (4)**

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. (3 Lec., 3 Lab.)

#### **(BIO) 216 General Microbiology (4)**

Prerequisite: Biology 102 or 121 or demonstrated competence approved by the instructor. Topics include growth, reproduction, nutrition, genetics, and ecology of microorganisms, as well as aspects of microbial disease, immunology and chemotherapy. Laboratory activities constitute a major part of the course. Laboratory fee. (3 Lec., 4 Lab.)

#### **(BIO) 221 Anatomy And Physiology I (4)**

Prerequisite: Biology 102 or demonstrated competence approved by 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. (3 Lec., 3 Lab.)

#### **(BIO) 222 Anatomy and Physiology II (4)**

Prerequisite: Biology 221 or demonstrated competence approved by the instructor. This is the second course of a two course sequence. Structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems are studied. Emphasis is placed on the inter-relationships of these systems. Laboratory fee. (3 Lec., 3 Lab.)

## **BLUEPRINT READING**

#### **(BPR) 177 Blueprint Reading (2)**

Engineering drawings are described and explained. Topics include multiview projection, sections, auxiliaries, bill of materials, symbols, notes, conventions, and standards. The skills of visualization, dimensioning, and sketching of machine parts are covered. (1 Lec., 3 Lab.)

**(BPR) 178 Blueprint Reading (2)**

Prerequisite: Blueprint Reading 177. The different types of prints are read. More complex prints are included. Types of prints include machine, piping, architectural, civil, structural, electrical, electronic, numerical control documents, and aircraft. Calculations required in blueprint reading are emphasized. (1 Lec., 3 Lab.)

**BUSINESS****(BUS) 105 Introduction To Business (3)**

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.) (3 Lec.)

**(BUS) 143 Personal Finance (3)**

Personal financial issues are explored. Topics include financial planning, insurance, budgeting, credit use, home ownership, savings, investment, and tax problems. (3 Lec.)

**(BUS) 234 Business Law (3)**

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

**(BUS) 237 Organizational Behavior (3)**

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. (3 Lec.)

**CHEMISTRY****(CHM) 101 General Chemistry (4)**

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. (3 Lec., 3 Lab.)

**(CHM) 102 General Chemistry (4)**

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. (3 Lec., 3 Lab.)

**(CHM) 115 Chemical Sciences (4)**

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. (3 Lec., 3 Lab.)

**(CHM) 116 Chemical Science (4)**

Prerequisite: Chemistry 115 or demonstrated competence approved by 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. (3 Lec., 3 Lab.)

**(CHM) 201 Organic Chemistry I (4)**

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, stereo chemistry, transition state theory, and organic synthesis. Laboratory fee. (3 Lec., 4 Lab.)

**(CHM) 202 Organic Chemistry II (4)**

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. (3 Lec., 4 Lab.)

**(CHM) 203 Quantitative Analysis (4)**

Prerequisite: Chemistry 102, Mathematics 101 or Mathematics 104 or the equivalent. Principles for quantitative determinations are presented. Topics include gravimetry, oxidation-reduction, indicators, and acid-base theory. Gravimetric and volumetric analysis is emphasized. Colorimetry is introduced. Laboratory fee. (2 Lec., 6 Lab.)

**COLLEGE LEARNING SKILLS****(CLS) 100 College Learning Skills (1)**

This course is for students who wish to extend their learning skills for academic or career programs. Individualized study and practice are provided in reading, study skills and composition. This course may be repeated for a maximum of three credits. (1 Lec.)

**COMMUNICATIONS****(COM) 131 Applied Communications (3)**

This course focuses on student writing. It emphasizes reading and analytical thinking skills and introduces research skills. Students practice writing for a variety of audiences and purposes, primarily job-related. (3 Lec.)

**COMPUTER INFORMATION SYSTEMS****(CIS) 105 Introduction to Computer Information Systems (3)**

This course provides an overview of computer information systems. Topics include history of computers, vocabulary, cultural impact, procedures and systems, development of basic algorithms, and number systems. The fundamentals of computer problem-solving and programming are applied through the use of the BASIC programming language. Laboratory fee. (3 Lec.)

**(CIS) 111 Data Entry Applications and Concepts (3)**

Prerequisites: Office Careers 172 or one year typing in high school or the equivalent. This course provides hands on experience using a personal computer for data entry applications. Students will learn to use a data entry utility program to input various business applications. Some typical applications will be creating data sets, changing or modifying existing data sets, and entering variable data. Speed and accuracy will be stressed. In addition, students will be introduced to software packages that cover the basic functions of word processing, data base concepts, and spreadsheets. Laboratory fee. (2 Lec., 4 Lab.)

**(CIS) 150 Computer Program Logic and Design (3)**

Prerequisite: Computer Information Systems 105 or demonstrated competence approved by the instructor. This course presents basic logic needed for problem solving with the computer. Topics include introduction to design tools, techniques for basic logic operations, structured charting, table search and build techniques, types of report printing, conditional tests, multiple record types, and sequential file maintenance. (3 Lec.)

**(CIS) 160 Data Communications (3)**

Prerequisite: Computer Information Systems 105. Topics include vocabulary, and configuration of data communications networks, including terminals, multiplexors, modems and communications facilities. Network protocols and teleprocessing monitors are overviewed. (3 Lec.)

**(CIS) 162 COBOL Programming I (4)**

Prerequisites: Computer Information Systems 105 or demonstrated competence approved by the instructor. Concurrent enrollment in Office Careers 176 or demonstrated competence approved by instructor. Credit or concurrent enrollment in Computer Information Systems 150 is advised. This course introduces programming skills using the COBOL language. Skills in problem analysis, design tools, coding, testing, and documentation are developed. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 164 COBOL Programming II (4)**

Prerequisites: Computer Information Systems 162 and 150 or demonstrated competence approved by the instructor. The study of COBOL language is continued from Computer Information Systems 162. Included are levels of totals, group printing concepts, table build and search techniques, elementary sort techniques, disk file organization concepts, matching records, and file maintenance concepts using disk. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 166 C Programming (3)**

Prerequisite: Computer Information Systems 105 or demonstrated competence approved by the instructor. This course covers the fundamentals of the C Programming language. Students gain proficiency by writing and debugging programs using microcomputers. Laboratory fee. (2 Lec., 2 Lab.)

**(CIS) 170 RPG Programming (3)**

Prerequisite: Previous programming experience or demonstrated competence approved by the instructor. This course introduces programming skills using the RPG II language. Programming problems emphasize card images and disk processing. Basic listing with levels of totals, multi-card records, exception reporting, look-ahead feature, and multi-file processing are included. Laboratory fee. (2 Lec., 2 Lab.)

**(CIS) 172 BASIC Programming (3)**

Prerequisite: Computer Information Systems 105 or demonstrated competence approved by 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. (2 Lec., 2 Lab.)

**(CIS) 173 Pascal Programming for Business (3)**

Prerequisites: Computer Information Systems 162 or demonstrated competence approved by the instructor. This course is an introduction to the Pascal programming language. Topics will include structured programming and problem-solving techniques as they apply to business applications. Laboratory fee. (2 Lec., 2 Lab.)

**(CIS) 205 JCL and Operating Systems (4)**

Prerequisite: Credit or concurrent enrollment in Computer Information Systems 164 or demonstrated competence approved by the instructor. Concepts and technical knowledge of an operating system, JCL, and utilities are presented. Training is given in the use of JCL and utilities. The emphasis of the operating system depends on the computer system used. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 210 Assembly Language I (4)**

Prerequisites: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course focuses on basic concepts and instructions using a current assembler language. Decimal features and fixed point operations using registers are emphasized. Selected macro instructions, table handling, editing printed output, and reading memory dumps are included. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 220 Assembly Language II (4)**

Prerequisite: Computer Information Systems 210 or demonstrated competence approved by the instructor. Advanced programming skills will be developed using a current assembler language. Topics include indexing, indexed and sequential file organization, table search methods, data and bit manipulation techniques, macro writing, sub-program linkages, advanced problem analysis, and debugging techniques. Floating point operations are introduced. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 225 Applied Systems (4)**

Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course introduces and develops skills to analyze existing systems and to design new systems. Emphasis is on a case study involving all facets of system design from the original source of data to final reports. Design tools and documentation are included. (3 Lec., 4 Lab.)

**(CIS) 252 Advanced COBOL Techniques (4)**

Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course provides advanced contemporary programming techniques using the COBOL language. Random and sequential updating of disk files, table handling, report writer, memory dump analysis, and use of the internal sort verb, and call and copy techniques are presented. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 254 Data Base Systems (4)**

Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course is an introduction to applications program development in a database environment with emphasis on loading, modifying, and querying a database using a higher-level language. Discussion and application of data structures; indexed and direct file organizations; storage devices, data analysis, design, and implementation; and data administration are included. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 256 Computer Center Management (3)**

Prerequisite: Computer Information Systems 105 or 115 or demonstrated competence approved by 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 on-line systems are explored. Methods for computer selection and evaluation are described. (3 Lec.)

**(CIS) 258 Teleprocessing (4)**

Prerequisites: Computer Information Systems 160 and 164 or demonstrated competence approved by the instructor. This course covers teleprocessing monitors and introduces the concepts required to program in an on-line/real-time environment. Topics include the nature of on-line/real-time applications, the functions of a teleprocessing monitor, program coding techniques, testing methods and file handling. The CICS Command Level interface to the COBOL language will be used. Laboratory fee. (3 Lec., 4 Lab.)

**(CIS) 260 Contemporary Topics in Computer Science (1)**

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. May be repeated when topics vary. (1 Lec.)

**(CIS) 262 Contemporary Topics in Computer Science (3)**

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 micro/mini computer systems, programming languages, or other advanced data processing concepts such as CICS. (3 Lec.)

**(CIS) 264 Special Topics in Computer Science (4)**

Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Current developments in the rapidly changing field of computer science and data processing are studied. Such topics may include advanced programming language concepts in BASIC, RPG II and RPG III, and Pascal; or advanced data entry concepts. May be repeated as topics vary. Laboratory fee. (3 Lec., 3 Lab.)

**(CIS) 701, 711, 801, 811 Cooperative Work Experience (1)**  
(See Cooperative Work Experience). (1 Lec., 5 Lab.)**(CIS) 702, 712, 802, 812 Cooperative Work Experience (2)**  
(See Cooperative Work Experience). (1 Lec., 10 Lab.)**(CIS) 703, 713, 803, 813 Cooperative Work Experience (3)**  
(See Cooperative Work Experience). (1 Lec., 15 Lab.)**(CIS) 704, 714, 804, 814 Cooperative Work Experience (4)**  
(See Cooperative Work Experience). (1 Lec., 20 Lab.)

## COMPUTER SCIENCE

**(CS) 111 Computing Science I (3)**

Prerequisite: Two years of high school algebra or Developmental Math 093 or demonstrated competence approved by the instructor. This introductory course is designed to meet the requirements for a four-year degree with a major or minor in computer science, mathematics, or a scientific field. Topics covered include computer organization and storage, number systems, and problem-solving using structured programming in Pascal. Laboratory fee. (3 Lec.)

**(CS) 112 Computing Science II (3)**

Prerequisites: Computer Science 111 and Math 101 or demonstrated competence approved by the instructor. This course is a continuation of Computer Science 111 and is designed to meet the requirements for a degree in computer science or a related field. Topics covered include a continuation of Pascal programming, structured problem solving, elementary data structures including arrays, records, files, and the use of pointer variables. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 121 Introduction to FORTRAN Programming (3)**

Prerequisite: Math 102 or demonstrated competence approved by the instructor. This course is intended primarily for students pursuing a degree in an engineering, science, or a related field who require a one-semester course in FORTRAN programming. Emphasis is on the use of the FORTRAN language in technical applications. Topics include input/output, structures, and formatting. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 122 Introduction to BASIC Programming (3)**

Prerequisite: Developmental Math 093 or demonstrated competence approved by the instructor. This course is an introduction to the BASIC programming language. Topics include input/output, looping, decision structures, functions, arrays, disk files, and formatting. Emphasis is placed on structured programming techniques and algorithm development. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 123 Introduction to PL/I Programming (3)**

Prerequisites: Developmental Math 093 and Computer Science 111 or Computer Information Systems 105 or demonstrated competence approved by the instructor. This course is an introduction to the PL/I programming language. Emphasis is placed upon the structured approach to program design using both mathematical and business applications. Topics include string processing, simple data structures, internal search/sort techniques, and sequential file processing. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 211 Assembly Language (3)**

Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course is designed to meet the requirements for a degree in computer science

or a related field. Topics covered include a study of assembly language programming, machine representation of data and instructions, and addressing techniques. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 221 Introduction to Computer Organization (3)**

Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course introduces the organization and structuring of the major hardware components of computers, the mechanics of information transfer and control within a digital computer system, and the fundamentals of logic design. Laboratory fee. (2 Lec., 2 Lab.)

**(CS) 222 Introduction to File Processing (3)**

Prerequisite: Computer Science 112 or demonstrated competence approved by the instructor. This course introduces the concepts and techniques of structuring data. Experience is provided in the use of secondary storage devices and applications of data structures and file processing techniques. Laboratory fee. (2 Lec., 2 Lab.)

## COOPERATIVE WORK EXPERIENCE

**701, 711, 801, 811 Cooperative Work Experience (1)**  
(1 Lec., 5 Lab.)

**702, 712, 802, 812 Cooperative Work Experience (2)**  
(1 Lec., 10 Lab.)

**703, 713, 803, 813 Cooperative Work Experience (3)**  
(1 Lec., 15 Lab.)

**704, 714, 804, 814 Cooperative Work Experience (4)**  
(1 Lec., 20 Lab.)

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 student's 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.

## DANCE

**(DAN) 116 Rehearsal And Performance (1)**

This course supplements beginning dance technique classes. Basic concepts of approaching work on the concert stage - stage directions, stage areas, and the craft involved in rehearsing and performing are emphasized. This course may be repeated for credit. (4 Lab.)

**(DAN) 155 Jazz I (1)**

The basic skills of jazz dance are introduced. Emphasis is on technique and development, rhythm awareness, jazz styles, and rhythmic combinations of movement. Laboratory fee. (3 Lab.)

**(DAN) 156 Jazz II (1)**

Prerequisite: Dance 155 or demonstrated competence approved by the instructor. Work on skills and style in jazz dance is continued. Technical skills, combinations of steps and skills into dance patterns, and exploration of composition in jazz form are emphasized. Laboratory fee. (3 Lab.)

**(DAN) 160 Introduction To Dance History (3)**

A history of dance forms is presented. Primitive, classical, and contemporary forms are included. (3 Lec.)

**(DAN) 161 Beginning Ballet I (2)**

This course explores basic ballet techniques. Included are posture, balance, coordination, rhythm, and flow of physical energy through the art form. Theory, terminology, ballet history, and current attitudes and events in ballet are also studied. Barre exercises and centre floor combinations are given. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 163 Beginning Ballet II (2)**

Prerequisite: Dance 161. This course is a continuation of Dance 161. Emphasis is on expansion of combinations at the barre. Connecting steps learned at centre are added. Jumps and pirouettes are introduced. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 165 Beginning Contemporary Dance I (2)**

This course explores basic contemporary techniques. Emphasis is on technique development, and familiarity with contemporary meters and rhythms. An awareness of major influences on concert dance is developed. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 166 Beginning Contemporary Dance II (2)**

Prerequisite: Dance 165. This course continues and further develops an exploration of Dance 165. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 200 Rehearsal And Performance (1)**

Prerequisite: Dance 116 or demonstrated competence approved by the instructor. This course supplements intermediate dance technique classes. It is a continuation of Dance 116 with emphasis on more advanced concepts as they apply to actual rehearsals and performances. This course may be repeated for credit. (4 Lab.)

**(DAN) 252 Coaching and Repertoire (1)**

Prerequisite: Demonstrated competence approved by the instructor. Variations (male and female) and pas de deux from standard ballet repertoire are studied and notated. The dancer is given individual coaching, with special attention given to the correction of problems. This course may be repeated for credit. Laboratory fee. (2 Lab.)

**(DAN) 253 Improvisation (1)**

Prerequisite: Dance 151 or Dance 156. This course consists of creative problem-solving utilizing basic elements of design. This course may be repeated for credit. Laboratory fee. (2 Lab.)

**(DAN) 255 Jazz III (1)**

Prerequisite: Dance 156. This course consists of the development of proper performance framing. Complex jazz rhythms, turns, jumps, and intricate elements of choreography are introduced. Laboratory fee. (3 Lab.)



**(DAN) 256 Jazz IV (1)**

Prerequisite: Dance 255. This course is a further exploration of Dance 255. Laboratory fee. (3 Lab.)

**(DAN) 258 Intermediate Ballet I (2)**

Prerequisite: Dance 163. The development of ballet techniques is continued. More complicated exercises at the barre and centre floor are included. Emphasis is on long series of movements, adagio and jumps. Precision of movement is stressed. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 260 Intermediate Ballet II (2)**

Prerequisite: Dance 258. This course begins pointe work for women. Specialized beats and tour are begun for men. Individual proficiency and technical virtuosity are developed. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 265 Intermediate Contemporary Dance I (2)**

Prerequisite: Dance 166. This course consists of the development of complex falls, combinations, phrasing, and dramatic emphasis. Laboratory fee. (1 Lec., 3 Lab.)

**(DAN) 266 Intermediate Contemporary Dance II (2)**

Prerequisite: Dance 265. This course is a further exploration of Dance 265. Laboratory fee. (1 Lec., 3 Lab.)

## DEVELOPMENTAL COMMUNICATIONS

**(DC) 095 Communication Skills (3)**

This course focuses on strengthening language communications. Topics include grammar, paragraph structure, reading skills, and oral communication. Emphasis is on individual testing and needs. (3 Lec.)

**(DC) 120 Communication Skills (3)**

This course is for students with significant communication problems. It is organized around skill development, and students may enroll at any time (not just at the beginning of a semester) upon the referral of an instructor. Emphasis is on individual needs and personalized programs. Special attention is given to oral language. Contacts are made with other departments to provide other ways of learning for the students. (2 Lec., 2 Lab.)

## DEVELOPMENTAL LEARNING

**(DL) 094 Learning Skills Improvement (1)**

Learning skills are strengthened. Emphasis is on individual needs and personalized programs. This course may be repeated for a maximum of three credits. (2 Lab.)

## DEVELOPMENTAL MATHEMATICS

**(DM) Developmental Mathematics**

Developmental Mathematics courses offer a review of mathematics skills. Developmental Mathematics 093 satisfies prerequisites for Mathematics 101, 104, 111, and 115. Developmental Mathematics 091 satisfies prerequisites for Mathematics 130, 139, and 195.

**(DM) 090 Pre Algebra Mathematics (3)**

This course is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages and to strengthen basic skills in mathematics. The course is planned primarily for students

who need to review basic mathematical processes. This is the first three-hour course in the developmental mathematics sequence. (3 Lec.)

**(DM) 091 Elementary Algebra (3)**

Prerequisite: Developmental Mathematics 090 or an appropriate assessment test score. This is a course in introductory algebra which includes operations on real numbers, polynomials, special products and factoring, rational expressions, and linear equations and inequalities. Also covered are graphs, systems of linear equations, exponents, roots, radicals, and quadratic equations. (3 Lec.)

**(DM) 093 Intermediate Algebra (3)**

Prerequisite: One year of high school algebra and an appropriate assessment test score or Developmental Mathematics 091. This course includes further development of the terminology of sets, operations on sets, properties of real numbers, polynomials, rational expressions, linear equations and inequalities, the straight line, systems of linear equations, exponents, roots, and radicals. Also covered are products and factoring, quadratic equations and inequalities, absolute value equations and inequalities, relations, functions, and graphs. (3 Lec.)

## 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 courses that require a considerable amount of college-level reading. See the catalog descriptions in reading for full course content.

**(DR) 090 Basic Reading Skills (3)**

Development of comprehension and vocabulary skills, based on individual needs, is the focus of this course. Basic study skills are introduced. A score of 12 to 19 on the Descriptive Test of Language Skills Reading Comprehension Test would indicate that a student has the reading skills needed for this course. (3 Lec.)

**(DR) 091 Preparation for College Reading (3)**

This course emphasizes development of comprehension and vocabulary skills, according to individual needs. Also included are critical reading, rate flexibility, and basic study skills. A score of 20 to 27 on the Descriptive Test of Language Skills Reading Comprehension Test would indicate that a student has the reading skills needed for this course. (3 Lec.)

## DEVELOPMENTAL WRITING

**(DW) Developmental Writing**

Students can improve their writing skills by taking Developmental Writing. These courses are offered for one to three hours of credit.

**(DW) 090 Developmental Writing (3)**

This course introduces the writing process. Course topics include practice in getting ideas, writing and rewriting, making improvements, and correcting mistakes. A learning lab is available to provide additional assistance. (3 Lec.)



**(DW) 091 Developmental Writing (3)**

This course focuses on the writing process. Course topics include inventing, drafting, revising and editing multi-paragraph papers. Building reading skills, using resources, developing thinking skills and improving attitudes toward writing comprise other course topics. A learning lab is available to provide additional assistance. (3 Lec.)

**(DW) 092 Developmental Writing (1)**

This course is a writing workshop designed to support students enrolled in English 101 and other courses requiring writing. (3 Lab.)

**DRAFTING****(DFT) 135 Reproduction Processes (2)**

Equipment and processes used to reproduce technical art are studied. Included are the graphic arts process camera, lithographic offset printing, diazo reproduction, blueprinting, photodrafting, microfilming, photocopying, silk screen printing, printed circuit board etching, thermography, typographics, xerography, engravings, and others. The rapidly expanding field of computer graphics is also covered. Lab work includes the preparation of flats for offset printing of brochures. Laboratory fee. (1 Lec., 3 Lab.)

**(DFT) 136 Geological and Land Drafting (3)**

Prerequisite: Drafting 183 or the equivalent and Mathematics 196. Equivalence is based on high school drafting courses or on student's work experience. Sample of drawings and/or high school transcript must be presented. 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 traverse and contour lines and to determine areas and volume. A set of drawings is prepared for residential subdivision, a shopping center, or some other type of land development. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 160 Manufacturing Fundamentals (2)**

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. (2 Lec.)

**(DFT) 182 Technician Drafting (2)**

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. (1 Lec., 3 Lab.)

**(DFT) 183 Basic Drafting (4)**

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. (2 Lec., 6 Lab.)

**(DFT) 184 Intermediate Drafting (3)**

Prerequisite: Drafting 183 or the equivalent. Equivalence is based on high school drafting courses or on student's work experience. Samples of drawings and/or a 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 reproduction of drawings are studied. Detail and assembly drawings are made. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 185 Architectural Drafting (4)**

This course begins with architectural lettering, and drafting of construction details. Emphasis is on technique and 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. (2 Lec., 6 Lab.)

**(DFT) 230 Structural Drafting (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 231 Electronic Drafting (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 232 Technical Illustration (3)**

Prerequisite: Drafting 183. The rendering of three-dimensional drawings is covered. Orthographic views and engineers sketches are developed into isometric, dimetric, perspective, and diagrammatic drawings of equipment and their environments. Technical sketching, 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. (2 Lec., 4 Lab.)

**(DFT) 234 Advanced Technical Illustration (4)**

Prerequisite: Drafting 232. An area of specialization is chosen and pursued in depth. Examples are pictorials for color separation printing, air brush renderings, letterforms for logos and hand lettering, complex exploded views in isometric, perspective renderings, design of commercial displays and art for slide presentations. Laboratory fee. (2 Lec., 6 Lab.)

**(DFT) 235 Building Equipment (Mechanical And Electrical) (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 236 Pipe Drafting (3)**

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 exchangers. Drawing techniques are emphasized in orthographic isometric projections. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 245 Computer Aided Design (3)**

Prerequisite: Drafting 183 or the equivalent. 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. (2 Lec., 4 Lab.)

**(DFT) 246 Advanced CAD-Electronic (3)**

Prerequisites: Drafting 231 and Drafting 245 or the equivalent. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to printed circuit board or integrated circuit design. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 247 Applied Printed Circuit Design (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 248 Advanced CAD-Mechanical (3)**

Prerequisites: Drafting 184 and Drafting 245 or the equivalent. 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 systems. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 249 Advanced CAD-Architectural (3)**

Prerequisites: Drafting 185 and 245 or the equivalent. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to architectural drafting as it relates to the single-family residence. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 250 Sheet Metal Design (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 251 Industrial Design (3)**

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. (2 Lec., 4 Lab.)

**(DFT) 255 Selected Topics in Drafting (3)**

Prerequisite: Demonstrated competence as approved by the instructor. Special topics in advanced drafting are covered. Topics will be those with current industry applications and may be individualized for each student. Laboratory fee. (2 Lec., 4 Lab.)

**(DFT) 703, 713, 803, 813 Cooperative Work Experience (3)**  
(See Cooperative Work Experience). (1 Lec., 15 Lab.)**(DFT) 704, 714, 804, 814 Cooperative Work Experience (4)**  
(See Cooperative Work Experience). (1 Lec., 20 Lab.)**ECONOMICS****(ECO) 201 Principles of Economics I (3)**

Sophomore standing is recommended. The principles of macroeconomics are presented. Topics include economic organization, national income determination, money and banking, monetary and fiscal policy, macroeconomic applications of international trade and finance, economic fluctuations, and growth. (This course is offered on campus and may be offered via television.) (3 Lec.)

**(ECO) 202 Principles of Economics II (3)**

Prerequisite: Economics 201 or demonstrated competence approved by 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 given to microeconomic applications of international trade and finance as well as other contemporary microeconomic problems. (3 Lec.)

**ELECTRONICS TECHNOLOGY****(ET) 135 DC-AC Theory And Circuit Analysis (6)**

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. (5 Lec., 3 Lab.)

**(ET) 170 Printed Circuit Board Manufacturing (1)**

The student will build a working printed circuit board. The course will begin with a schematic and parts list and progress through all steps necessary to produce a single sided photographically produced board. Laboratory fee. (1 Lec., 1 Lab.)

**(ET) 172 Soldering (1)**

This course is intended to ensure that the student understands the theory and use of tools and equipment for proper industrial soldering techniques. The prime emphasis is to build the student's skill in soldering. Laboratory fee. (1 Lec., 1 Lab.)

**(ET) 174 Oscilloscope Utilization (1)**

This course will cover all front panel controls on basic laboratory calibrated oscilloscopes. Emphasis will be placed on utilization of oscilloscope in troubleshooting a circuit. Laboratory fee. (1 Lec., 1 Lab.)

**(ET) 190 DC Circuits and Electrical Measurements (4)**

The mathematical theory of direct current circuits is presented in combination with laboratory fundamentals. Emphasis is on elementary principles of magnetism, electric concepts and units, diagrams, and resistance. Electromagnetism, series and parallel circuits, simple meter circuits, conductors, and insulators are also stressed. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 191 A.C. Circuits (4)**

Prerequisite: 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, capacitance, inductance, Q of coils, magnetism, and resistance. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 193 Active Devices (4)**

Prerequisites: Electronics Technology 190 and credit or concurrent enrollment in Electronics Technology 191. Semiconductors (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. (3 Lec., 3 Lab.)

**(ET) 194 Instrumentation (3)**

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 equipment. Laboratory fee. (2 Lec., 3 Lab.)

**(ET) 200 Special Applications Of Electronics (4)**

This course is intended for use by any given group of students that desire specific topics to be covered. This course may substitute for any 200 level electronics course with the demonstrated competence approved by the instructor. This course is repeatable for credit as topics vary. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 210 Basic CRT Display And Television Theory And Service (4)**

Prerequisites: Electronics Technology 190, 191, 193 and 194. This course is designed to introduce CRT display and television theory and to give the student hands-on experience in basic servicing of all major sections of modern television receivers and CRT displays for computers. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 231 Special Circuits With Communications Applications (4)**

Prerequisites: Electronics Technology 193 and 194. Active devices are applied to circuitry common to most communications equipment. Both the theory of operation and practical applications of the circuits in laboratory experiments are included. Circuits including power supplies, voltage regulators, tuned and untuned amplifiers, filters, oscillators, modulators and detectors, with application to various types of intelligence transmission and reception are emphasized in the course. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 232 Analysis Of Electronics Logic And Switching Circuits (4)**

Prerequisites: Electronics Technology 193 and 194. The course presents circuitry common to electronic control systems and automatic measuring systems. Typical circuit functions covered include clamping, gating, switching, and counting. Circuits include voltage discriminators, multi-vibrators, dividers, counters, and gating circuits. Boolean algebra and binary numbers are reviewed. Emphasis is on semiconductor devices. Fluidic switching devices are introduced. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 234 Electronic Circuits And Systems (3)**

Prerequisites: Completion of all electronics technology courses up to and including Electronics Technology 231; and may take Electronics Technology 232 and Electronics Technology 231 concurrently with Electronics Technology 234. The design, layout construction, and calibration of an electronics project are covered. Students develop independent project and prepare term papers on functions of components, operating specifications and schematics. Laboratory fee. (6 Lab.)

**(ET) 237 Modular Memories And Microprocessors (4)**

Prerequisites: Electronics Technology 232. Read only memories (ROM's), random access memories (RAM's) and microprocessors are presented. Emphasis is on specifications, applications, and operation. Control buses data basics, addressing, coding, and programming of typical microprocessor units are included. Microprocessor system is constructed, tested, coded, and programmed. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 238 Linear Integrated Circuits (4)**

Prerequisites: Electronics Technology 190, 191, and 193. Differential amplifiers, operational amplifiers, and integrated circuit timers are investigated. Topics include comparators, detectors, inverting and non-inverting amplifiers, OP AMP adders, differentiating and integrating amplifiers, and instrumentation amplifiers. Digital to analog converters, analog to digital converters, special OP AMP applications, and integrated circuits timers are also included. Limitations and specifications of integrated circuits are covered. Laboratory fee. (3 Lec., 3 Lab.)

**(ET) 239 Microwave Technology (3)**

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, klystron characteristics, and waveguide tuning will be demonstrated. A basic radar system is discussed as time permits. (3 Lec.)

**(ET) 240 Electronics Theory And Application Of Digital Computers (4)**

Prerequisites: Mathematics 196 and Electronics Technology 193. The course presents the electronic switching circuits for digital computer systems. Logic symbology, gates, and related Boolean algebra are covered. Computer terminology and number systems are included. An introduction to BASIC language programming for electronic circuit analysis is also included. Laboratory experiments in addition to computer programming include basic logic gate analysis and test procedures. Laboratory fee. (3 Lec., 3 Lab.)

## ENGINEERING

### **(EGR) 106 Descriptive Geometry (3)**

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. (2 Lec., 4 Lab.)

### **(EGR) 186 Manufacturing Processes (2)**

This course introduces the student enrolled in technical programs to the many steps involved in manufacturing a product. This is accomplished by involving the class in producing a device with precision. The student gains practical experience with working drawings, a variety of machine tools and the assembly of components. The student is made aware of the factors involved in selecting materials and economical utilization of materials. Laboratory fee. (1 Lec., 2 Lab.)

### **(EGR) 187 Manufacturing Processes (2)**

Prerequisite: Engineering 186. This course is a continuing study of the metal-working processes with emphasis on automation, programming and operation of CNC machines. Laboratory fee. (1 Lec., 2 Lab.)

## ENGINEERING TECHNOLOGY

### **(EGT) 124 Industrial Organizations (2)**

This course presents an overall view of the manufacturing company. Topics include process planning, costs and budgets, contracts, marketing, economics, and personnel. (2 Lec.)

### **(EGT) 141 Basic Hydraulics And Fluid Mechanics (4)**

Principles of hydraulics and fluid mechanics are examined. Hydraulic pumps, motors, cylinders, and valves are studied. Emphasis is on the application of formulas related to the properties of fluids and the laws which govern fluid flow. Various hydraulic components are tested, and basic hydraulic circuits are set up and evaluated. (3 Lec., 3 Lab.)

### **(EGT) 142 Instrumentation and Testing (3)**

Prerequisite: Credit or concurrent enrollment in Electronics Technology 191. Industrial instrumentation and testing are introduced. The characteristics of various instruments are investigated. Included are basic AC and DC measurement meters, impedance bridges, oscilloscopes, signal generators, and transistor testers. The static and dynamic characteristics of measuring devices used in electronic control, related areas in instrumentation, and materials handling are studied. Laboratory fee. (2 Lec., 3 Lab.)

### **(EGT) 143 Technical Programming (4)**

Prerequisite: Mathematics 195 or demonstrated competence approved by the instructor. This course introduces the engineering technician to the world of technology. Skills are developed in using hand calculators and computers to solve engineering problems. Basic computer programming techniques are introduced in the microcomputer laboratory using high-level languages such as BASIC. Laboratory fee. (3 Lec., 3 Lab.)

### **(EGT) 222 Fundamentals of Pneumatics (3)**

Pneumatic power units, pneumatic controls, and pneumatic cylinders are studied. Both construction and operation are covered. Pneumatic circuits, power operated holding devices, safety circuits, and remote controlled circuits are presented. Manual, mechanical, pilot, and solenoid operated circuits are all included. Laboratory fee. (2 Lec., 2 Lab.)

### **(EGT) 225 Advanced Fluid Power Systems (4)**

This course examines fluid power systems. Included is the design of hydraulic and pneumatic systems. Circuit calculations are made for force, torque, power, speed, fluid pressure, flow rate, and velocity. Emphasis is on the selection of pumps, cylinders, valves, motors, compressors, filters, and other fluid power components. The set-up, operation, and testing of various fluid power circuits are covered. Laboratory fee. (3 Lec., 3 Lab.)

### **(EGT) 228 Amplifier And Analog Control Circuits (4)**

Prerequisite: Electronics Technology 193. This course treats analog circuits including conventional amplifiers and operational amplifiers. The use of these circuits in controls, sensing, and testing is stressed. The laboratory emphasis is on application and characteristics of these circuits as applied to electromechanical controls. Reliance on pre-assembled or commercially available circuits is emphasized, especially semiconductor and integrated circuits. Laboratory fee. (3 Lec. 3 Lab.)

### **(EGT) 232 Applied Mechanics (4)**

Prerequisite: Mathematics 196 or equivalent. The theory and applications of mechanics are presented. Basic static and dynamic concepts are included. Topics include forces, vectors, equilibrium, moments, friction, moment of inertia, rectilinear and angular motion, work, energy and power. The construction, testing and analysis of linkage and drive elements in laboratory supports lecture material on related topics. (3 Lec., 3 Lab.)

### **(EGT) 233 Electrical Machinery (3)**

Prerequisite: Electronics Technology 191 or concurrent enrollment in Electronics Technology 191. The theory and function of power electricity, including AC and DC machines. Electrical and mechanical aspects are stressed. The laboratory provides hands-on experience in operation of machinery, quantitative analysis of performance characteristics, electrical measurements on power circuits and demonstration of principles discussed in class. Safety practices are stressed. Laboratory fee. (2 Lec., 3 Lab.)

### **(EGT) 237 Electromagnetic And Digital Machine Control (3)**

Prerequisite: Electronics Technology 191. This course emphasizes electromechanical and solid state industrial machine control systems. Control components, control and power circuit diagrams, manual and automatic AC and DC machine starters, manual and automatic AC and DC machine speed control, and solid state logic elements are studied. Problem identification, problem solving, and reporting techniques are emphasized. Laboratory fee. (2 Lec., 3 Lab.)

**(EGT) 239 Principles Of Microcomputer Control (4)**

Prerequisite: Electro-Mechanical Technology 242. The control of automated industrial systems with digital elements as subsystems is studied. Included are the functions of the various control elements and their interface with other components. The conversion of control information between analog and binary forms is examined. The use and implementation of logical decision elements are covered. Emphasis is on the operation and function of microcomputers in modern control systems. Laboratory fee. (3 Lec., 3 Lab.)

**(EGT) 242 Digital Control Circuits (4)**

Prerequisite: Electronics Technology 193 or equivalent. This course covers number systems used in computer systems. Alphanumeric and interchange codes are included. Binary arithmetic, including octal, hexadecimal and BCD, is covered with logic functions and Boolean algebra presented at a conceptual level. Logic gates, flip-flops, registers, encoders, decoders, counters, timing circuits, ALU's and memory units are included. Lecture material is supported by laboratory work. Laboratory fee. (3 Lec., 3 Lab.)

**(EGT) 243 Robotics I (3)**

This course provides an introduction to robot technology. The basic components and systems used in industrial robots are studied. The set-up and operation of robots and associated automatic control systems are emphasized. Laboratory fee. (2 Lec., 3 Lab.)

**(EGT) 247 Robotics II (3)**

Prerequisite: Engineering Technology 243 or demonstrated competence approved by the instructor. This course includes a study of robot and effectors, sensors, programmable controllers, power systems and software. The development of workcells and complete robotic systems is emphasized. Laboratory fee. (2 Lec., 3 Lab.)

**(EGT) 248 Advanced Robotics and Automated Systems (3)**

Prerequisite: Engineering Technology 247 or demonstrated competence approved by the instructor. In this course, the student will interface industrial robots with programmable controllers and other types of equipment used in automated manufacturing. An introduction to Computer Integrated Manufacturing and Artificial Intelligence related to robotics is included. Hands-on laboratory work is emphasized. Laboratory fee. (2 Lec., 3 Lab.)

**(EGT) 268 Microprocessor Interfacing and Troubleshooting (4)**

Prerequisite: Engineering Technology 239. This course is a study of microcomputer hardware interface concepts and necessary input/output software. An overall system approach is used to learn practical troubleshooting techniques that are applicable to any microprocessor system. Actual troubleshooting tools are used. Laboratory fee. (3 Lec., 3 Lab.)

**(EGT) 803 Cooperative Work Experience (3)**

(See Cooperative Work Experience). (1 Lec., 15 Lab.)

**(EGT) 804, 814 Cooperative Work Experience (4)**

(See Cooperative Work Experience). (1 Lec., 20 Lab.)

**ENGLISH****English**

(Also see Developmental Reading and Developmental Writing.) Additional instruction in writing and reading is available through the Learning Skills Center.

**(ENG) 101 Composition I (3)**

Prerequisite: An appropriate assessment test score (ACT, DCCCD test, or SAT). This course focuses on student writing. It emphasizes reading and analytical thinking and introduces research skills. Students practice writing for a variety of audiences and purposes. (This course is offered on campus and may be offered via television.) (3 Lec.)

**(ENG) 102 Composition II (3)**

Prerequisite: English 101. In this course students refine the writing, research, and reading skills introduced in English 101. A related goal is the development of critical thinking skills. Writing assignments emphasize argumentation and persuasion. Students will also write a formal research paper. (This course is offered on campus and may be offered via television.) (3 Lec.)

**English In The Sophomore Year**

English 201, 202, 203, 204, 205, 206, 215 and 216 are independent units of three credit hours each, from which any combination of two will be selected to satisfy degree requirements in sophomore English.

**(ENG) 201 British Literature (3)**

Prerequisite: English 102. This course includes significant works of British writers from the Old English Period through the 18th century. (3 Lec.)

**(ENG) 202 British Literature (3)**

Prerequisite: English 102. This course includes significant works of British writers from the Romantic Period to the present. (3 Lec.)

**(ENG) 203 World Literature (3)**

Prerequisite: English 102. This course includes significant works of Continental Europe and may include works from other cultures. It covers the Ancient World through the Renaissance (3 Lec.)

**(ENG) 204 World Literature (3)**

Prerequisite: English 102. This course includes significant works of Continental Europe and may include selected works of other cultures from the Renaissance to the present. (3 Lec.)

**(ENG) 205 American Literature (3)**

Prerequisite: English 102. This course includes significant works of American writers from the Colonial through the Romantic Period. (3 Lec.)

**(ENG) 206 American Literature (3)**

Prerequisite: English 102. This course includes significant works of American writers from the Realistic Period to the present. (3 Lec.)

**(ENG) 209 Creative Writing (3)**

Prerequisite: English 102. The writing of fiction is the focus of this course. Included are the short story, poetry, and short drama. (3 Lec.)

### **(ENG) 210 Technical Writing (3)**

Prerequisite: English 101 and English 102. The technical style of writing is introduced. Emphasis is on the writing of technical papers, reports, proposals, progress reports, and descriptions. (3 Lec.)

### **(ENG) 215 Studies in Literature (3)**

Prerequisite: English 102. This course includes selections in literature organized by genre, period, or geographical region. Course descriptions are available each semester prior to registration. This course may be repeated for credit. (3 Lec.)

### **(ENG) 216 Studies in Literature (3)**

Prerequisite: English 102. This course includes selections in literature 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. (3 Lec.)

## **ENGLISH-AS-A-SECOND LANGUAGE**

The English-as-a-Second Language (ESL) credit curriculum is designed to develop students' language proficiency in the areas of listening, speaking, reading, and writing. The plan of study consists of thirteen courses divided into three tracks and four levels (Listening-Conversation, Reading, and Writing). The student enters the program by taking the Michigan Test of English Language Proficiency (MTELP). (The Michigan Test of Aural Comprehension, the MTAC, is used *optionally* on each campus.) The credit ESL curriculum is designed to interface both with Continuing Education ESL programs and with Developmental Studies programs on each campus.

### **ESL 031-034 (Listening-Conversation)**

These courses prepare students to communicate orally in English. They can (but do not necessarily) precede the Reading (ESL 041-044) and Writing (ESL 051-054, ESL 063) courses.

### **ESL 041-044 (Reading)**

These courses prepare a student for reading English in daily life and for reading college textbooks. All four ESL-Reading (ESL 041-044) courses precede the Developmental Reading courses in level of difficulty. Therefore, ESL students needing additional academic preparation should enroll for regular Developmental Reading courses upon completion of the ESL-Reading courses.

### **ESL 051-054/ESL 063 (Writing-Grammar)**

These courses are designed to prepare a student for English 101. The courses involve three courses in syntax (grammar) development (ESL 051, ESL 052, ESL 063) and two courses in principles of composition (ESL 053 and ESL 054). Following these courses, each ESL student will be given the District Assessment Battery to determine readiness for English 101, Developmental Writing, or a combination of both, based on the test scores.

## **INGLES-COMO-SEGUNDO-IDIOMA**

El programa de crédito de *Inglés-Como-Segundo-Idioma* (ESL) está diseñado para proporcionar al estudiante la

habilidad de ser proficiente en el desarrollo del idioma inglés en las áreas de escuchar, conversar, leer, y escribir. El plan de estudio consiste de trece cursos divididos en tres secciones y cuatro niveles: escuchar-conversar, leer, y escribir. El programa de ESL se entrelaza con los programas de Educación Continua (Continuing Education) y los de Estudios de Preparación (Developmental Studies).

### **ESL 031-034 (Escuchar y Conversar)**

Estos cursos preparan al estudiante a comunicarse oralmente en inglés. Pueden (pero no necesariamente) preceder la clase de Lectura (ESL 041-044) y Escritura (ESL 051-054, ESL 063).

### **ESL 041-044 (Lectura)**

Estos cursos preparan al estudiante en la lectura del inglés en la vida diaria y a leer libros de texto al nivel colegial. Los cuatro cursos de Lectura (ESL 041-044) preceden los cursos Preparatorios de Lectura (Developmental Reading) en los diferentes grados de dificultad. Por lo tanto los estudiantes que necesiten preparación académica adicional se les recomienda matricularse en cursos regulares de Preparación de la Lectura (Developmental Reading) cuando terminen los cursos de Lectura de ESL (ESL-Reading).

### **ESL 051-054/ESL 063 (Escritura-Gramática)**

Estos cursos están diseñados para preparar al estudiante para pasar a la clase de Inglés 101 (English 101). Estas clases tienen tres cursos de desarrollo en la sintaxis (ESL 051, ESL 052, ESL 063) y dos cursos en Principios de la Composición (ESL 053 y ESL 054). Terminando estas clases, el estudiante tomará una evaluación, para determinar si está preparado Para la clase de Inglés 101 (English 101), Desarrollo de la Escritura (Developmental Writing) o una combinación de ambas, basado en los resultados de la evaluación.

### **(ESL) 031 ESL Conversation — Listening (3)**

This course is designed to develop academic and social skills needed to speak and understand English more effectively in school, in the market place, and in social situations. (3 Lec.)

### **(ESL) 032 ESL Conversation—Listening (3)**

This course strengthens competencies initiated in ESL 031. Special emphasis is placed on academic listening and speaking skills. (3 Lec.)

### **(ESL) 033 ESL Conversation—Listening (3)**

This course is designed to improve formal and informal conversation skills including listening comprehension, note-taking, oral reporting, and class discussion techniques. (3 Lec.)

### **(ESL) 034 ESL Conversation—Listening (3)**

This course develops academic, professional, and social aural/oral skills. Emphasis is placed on analysis and critical thinking in English. (3 Lec.)

### **(ESL) 041 ESL Reading (3)**

This course focuses on language development through reading activities. It includes reading comprehension, vocabulary, and word recognition. (3 Lec.)

### **(ESL) 042 ESL Reading (3)**

This course is designed for students needing more practice in the skills and information introduced in ESL 041. Topics include reading comprehension, vocabulary development, word recognition, language and culture. (3 Lec.)

**(ESL) 043 ESL Reading (3)**

This course covers pre-reading strategy, specific reading comprehension skills, critical reading skills, vocabulary development, idioms, and use of the dictionary and library. (3 Lec.)

**(ESL) 044 ESL Reading (3)**

This course is designed for students needing more practice in the skills and information introduced in ESL 043. Topics include pre-reading strategies, specific reading comprehension skills, critical reading skills, vocabulary development, idioms, and use of the dictionary and library. (3 Lec.)

**(ESL) 051 ESL Writing — Grammar (3)**

This course emphasizes correct formation of basic sentences with particular attention to specific grammatical points. These basic sentence structures will also be reinforced in writing exercises. (3 Lec.)

**(ESL) 052 ESL Writing—Grammar (3)**

This course strengthens English grammar skills introduced in ESL 051. Students will learn to produce compound and complex sentence structures. (3 Lec.)

**(ESL) 053 ESL Writing—Grammar (3)**

Prerequisite: Concurrent enrollment in ESL 063 is recommended. This course introduces principles of composition and emphasizes the processes of paragraph formation. (3 Lec.)

**(ESL) 054 ESL Writing — Grammar (3)**

This course emphasizes improving skills in expository writing. Particular attention is given to improving unity, coherence, transition, and style as students progress to multi-paragraph compositions. (3 Lec.)

**(ESL) 063 ESL Writing—Grammar (3)**

Concurrent enrollment in ESL 053 is recommended. This course includes an intensive grammar review of major points covered in ESL 051 and ESL 052 as well as an exploration of the more complex points of English grammar. (3 Lec.)

**FRENCH****(FR) 101 Beginning French (4)**

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

**(FR) 102 Beginning French (4)**

Prerequisite: French 101 or the equivalent. This course is a continuation of French 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. (3 Lec., 2 Lab.)

**(FR) 201 Intermediate French (3)**

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

**(FR) 202 Intermediate French (3)**

Prerequisite: French 201 or the equivalent. This course is a continuation of French 201. Contemporary literature and composition are studied. (3 Lec.)

**(FR) 203 Introduction To French Literature (3)**

Prerequisite: French 202 or demonstrated competence approved by the instructor. This course is an introduction to French literature. It includes readings in French literature, history, culture, art, and civilization. (3 Lec.)

**(FR) 204 Introduction To French Literature (3)**

Prerequisite: French 202 or demonstrated competence approved by the instructor. This course is a continuation of French 203. It includes readings in French literature, history, culture, art, and civilization. (3 Lec.)

**GEOGRAPHY****(GPY) 101 Physical Geography (3)**

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. (3 Lec.)

**GEOLOGY****(GEO) 101 Physical Geology (4)**

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. (3 Lec., 3 Lab.)

**(GEO) 102 Historical Geology (4)**

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. (3 Lec., 3 Lab.)

**(GEO) 103 Introduction to Oceanography (3)**

The physical and chemical characteristics of ocean water, its circulation, relationship with the atmosphere, and the effect on the adjacent land are investigated. The geological development of the ocean basins and the sediment in them is also considered. Laboratory fee. (2 Lec., 2 Lab.)

**(GEO) 205 Field Geology (4)**

Prerequisites: Eight credit hours of geology or demonstrated competence approved by 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. (3 Lec., 3 Lab.)

**GOVERNMENT****(GVT) 201 American Government (3)**

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 governmental 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.) (3 Lec.)





**(GVT) 202 American Government (3)**

Prerequisite: Sophomore standing recommended. The three branches of the United States and Texas government are studied. Topics include the legislative process, the executive and bureaucratic structure, the judicial process, civil rights and liberties, and domestic policies. Other topics include foreign relations and national defense. This course satisfies requirements for Texas State Teacher's Certification. (This course is offered on campus and may be offered via television.) (3 Lec.)

**(GVT) 205 Studies In Government (3)**

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. (3 Lec.)

**HISTORY****(HST) 101 History Of The United States (3)**

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.) (3 Lec.)

**(HST) 102 History Of The United States (3)**

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.) (3 Lec.)

**(HST) 105 Western Civilization (3)**

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. (3 Lec.)

**(HST) 106 Western Civilization (3)**

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. (3 Lec.)

**(HST) 110 The Heritage of Mexico (3)**

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. (3 Lec.)

**(HST) 112 Latin American History (3)**

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. (3 Lec.)

**(HST) 120 Afro-American History (3)**

The role of the Black in American history is studied. The slave trade and slavery in the United States are reviewed. Contributions of black Americans in the U.S. are described. Emphasis is on the political, economic, and sociological factors of the 20th century. (3 Lec.)

**(HST) 204 American Minorities (3)**

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. (3 Lec.)

**(HST) 205 Studies In U.S. History (3)**

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. (3 Lec.)

**HUMAN DEVELOPMENT****(HD) 104 Educational And Career Planning (3)**

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 personal satisfaction. Job search and survival skills are also considered. (3 Lec.)

**(HD) 105 Basic Processes of Interpersonal Relationships (3)**

This course is designed to help the student develop a self-awareness that will enable him/her to relate more effectively to others. Students are made aware of their feelings, values, attitudes, verbal and non-verbal behaviors. The course content, which utilizes an experiential model, also focuses on developing communication and problem-solving skills. (3 Lec.)

**(HD) 106 Personal and Social Growth (3)**

This course focuses on the interactions between the individual and the social structures in which he lives. Roles, social influences and personal adjustments to the world around us are explored in readings and classroom discussion. Human behavior, the diversity of lifestyles and the components of a healthy personality are studied in an effort to develop a pattern for growth that demonstrates a responsibility to self and society. (3 Lec.)



### **(HD) 107 Developing Leadership Behavior (3)**

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, appropriate 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. (3 Lec.)

### **(HD) 110 Assessment Of Prior Learning (1)**

Prerequisite: Limited to students in Technical/Occupational programs. Demonstrated competence approved by 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. (1 Lec.)

## **HUMANITIES**

### **(HUM) 101 Introduction to the Humanities (3)**

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. (3 Lec.)

### **(HUM) 102 Studies in Humanities (3)**

Prerequisite: Humanities 101 or demonstrated competence approved by the instructor. Human value choices 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. (3 Lec.)

## **JOURNALISM**

### **(JN) 101 Introduction To Mass Communications (3)**

This course surveys the field of mass communications. Emphasis is on the role of mass media in modern society. (3 Lec.)

### **(JN) 102 News Gathering And Writing (3)**

Prerequisite: Typing ability. This course focuses upon recognizing newsworthy events, gathering information, and writing the straight news story. It provides a basis for future study in newspaper and magazine writing, advertising, broadcast journalism and public relations. Students are required to write for the campus newspaper. (2 Lec., 3 Lab.)

### **(JN) 103 News Gathering And Writing (3)**

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 sto-

ries, and sidebars. Students are required to write for the campus newspaper. (2 Lec., 3 Lab.)

### **(JN) 104 Student Publications (1)**

Prerequisite: Demonstrated competence approved by 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. (3 Lab.)

### **(JN) 105 Student Publications (1)**

Prerequisite: Demonstrated competence approved by the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. This course is a continuation of Journalism 104. (3 Lab.)

### **(JN) 106 Student Publications (1)**

Prerequisite: Demonstrated competence approved by the instructor. This course may not be taken for credit concurrently with Journalism 102 or 103. The course is a continuation of Journalism 105. (3 Lab.)

### **(JN) 201 Feature Writing (3)**

Prerequisite: Six hours of journalism or demonstrated competence approved by the instructor. This course covers research, interviewing techniques, and the development of feature stories for use in newspapers and magazines. (3 Lec.)

### **(JN) 204 News Editing And Copy Reading (3)**

Prerequisite: Journalism 102. This course focuses on editing news for newspaper, radio, and television. Emphasis is on writing headlines and laying out pages. (3 Lec.)

## **LIBRARY SKILLS**

### **(LS) 101 Introduction to Library Research (3)**

In this course the student explores the various types of print and non-print sources of information and learns to document research. Emphasis is on practical skills with a great deal of hands-on experience. The course skills consist of lectures as well as the following learning experiences. (1) examination of the specific materials covered in the lecture, (2) completion of appropriate exercises designed to build basic skills used in research, and (3) conferences with each student to determine rate of progress and to provide guidance on an individual basis. (3 Lec.)

## **MACHINE PARTS INSPECTION**

### **(MPI) 122 Industrial Quality Control And Procedures (3)**

Prerequisite: Demonstrated competence approved by the instructor. An overview of the history of industrial practices, present trends and opportunities in the field of quality control are explored. Emphasis is on stimulating interest in the quality control field, and information is provided to help prepare the student for possible future employment. (3 Lec.)

**(MPI) 124 Basic Inspection Fundamentals (5)**

Prerequisite: Demonstrated competence approved by the instructor. The basics of inspection fundamentals are stressed and include terminology, use of basic measuring instruments, and measuring techniques. The student gains a respect for the complex nature of industrial quality control techniques in practice today. The laboratory experiences bring together theory and practical applications appropriate to prepare for the entrance into productive industrial experiences. The use and care of measuring instruments becomes a familiar daily task through laboratory exercises. (1 Lec., 8 Lab.)

**(MPI) 135 Intermediate Inspection Concepts (5)**

Prerequisite: Machine Parts Inspection 124 or demonstrated competence approved by the instructor. The more complicated aspects of industrial inspection are emphasized as the basics are reviewed and applied through the laboratory experiences. Inspection bookkeeping is introduced as a more specific part of the curriculum, and more complex measuring and holding devices are explored. Accuracy and reliability are stressed as more amplification is introduced in each measuring technique. Optical and pneumatic comparators are introduced, and light wave systems are discussed. (1 Lec., 8 Lab.)

**(MPI) 138 Geometric Tolerancing And True Positioning (3)**

Prerequisite: Demonstrated competence approved by the instructor. This basic course is designed to prepare students entering the manufacturing industries for the complex techniques and practices using geometric symbols related to engineering, production, and quality control operations. The advantages of a system of geometric symbols which provides dimensioning and tolerancing with respect to actual function and relationship of part features are stressed. Practical application connects this theory with the practical world of automated, computerized industry today. (2 Lec., 2 Lab.)

**(MPI) 220 Introduction To Materials And Processes (3)**

Prerequisites: Machine Parts Inspection 122 and Quality Control Technology 122 or demonstrated competence approved by the instructor. Information concerning properties of materials inherent and acquired in industry today is presented, including basic information to help prepare a student for making decisions concerning future training in specialized fields. The areas covered include metals, woods, plastics and natural products and their relationship to industry in the natural state, during processing, and the final usage. (3 Lec.)

**(MPI) 223 Advanced Inspection Concepts (5)**

Prerequisites: Machine Parts Inspection 124 and 135 or demonstrated competence approved by the instructor. Reviews of all inspection techniques are covered before embarking on the study of the most complex equipment and techniques. Coordinate measuring instruments, optical flats, X-ray inspection and electronic comparators are studied. Calibration of all types of measuring and inspection equipment is studied under classroom and laboratory-field trip on-the-job conditions. The most complex systems and techniques are encountered and explored. (1 Lec., 8 Lab.)

**(MPI) 227 Non-Destructive Testing (3)**

Prerequisite: Machine Parts Inspection 121, 220 and Quality Control Technology 122 or demonstrated competence approved by the instructor. An in-depth study is made of ultrasonic, radiographic, and magnetic particle techniques relating to industrial testing. An overview of all the related areas of non-destructive testing is included in the program. (3 Lec.)

**(MPI) 230 Introduction To Statistical Quality Control Techniques (3)**

Prerequisite: Demonstrated competence approved by the instructor. This course provides a review of the basic application of statistical methods in a simplified form. Concepts of tolerances, acceptance sampling, standard sampling plans, control chart, and analysis of process variation are introduced. Only basic arithmetic is required. (3 Lec.)

**(MPI) 237 Gage Control Standardization And Precision Measurement (3)**

Prerequisite: Demonstrated competence approved by the instructor. Inventory and gage security and calibration are stressed with emphasis on a general knowledge of all inspection equipment and a practical use of all items. Statistical treatment of data is introduced. (2 Lec., 4 Lab.)

**(MPI) 803, 813 Cooperative Work Experience (3)**

(See Cooperative Work Experience). (1 Lec., 15 Lab.)

## MACHINE SHOP

**(MS) 133 Basic Lathe (5)**

Practical experience is provided in the use of hand tools, layout, and hand threading. Various types of drill press work and engine lathe operations are introduced. Emphasis is on safety measures. The types and uses of machine oils, greases, coolants, and cutting oils are also included. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 134 Basic Milling Machine (5)**

This course focuses on hand threading. Drill press work and milling machine operations are presented. Machine parts, cutters, and arbors are covered. Emphasis is on safety measures. The types and uses of machine oils, greases, coolants, and cutting oils are also included. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 135 Intermediate Lathe (5)**

Prerequisite: Machine Shop 133. This course is the intermediate study of the engine lathe. Workpieces are more complicated and tolerances more exacting. Various machines and work holding methods are used. Precision layout and measuring tools are introduced. Additional work in determining cutting speeds and feeds is also included. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 136 Intermediate Milling Machine (5)**

Prerequisite: Machine Shop 134. This course is the intermediate study of the milling machine. Workpieces are more complicated and tolerances more exacting. Various machines and work holding methods are used. Precision layout and measuring tools are introduced. Additional work in determining cutting speeds and feeds is also included. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 145 Special Topics (1)**

This course is for those people who are working as machinists, toolmakers, diemakers, etc., who wish to review old or little used skills or to acquire skills needed in today's rapidly changing metal working field. This course may be repeated for credit when the topics vary. Laboratory fee. (1 Lec.)

**(MS) 151 Basic Machine Operation For Weld Tooling (3)**

Simple weld tooling is studied. Shop safety is stressed. Actual weld fixture components and weld fixtures are made using engine lathes, the milling machine, and drill presses. Laboratory fee. (1 Lec., 4 Lab.)

**(MS) 233 Advanced Lathe (5)**

This course is the advanced study of the engine lathe. Skill is developed in making open setups and in locating holes by means of layout and triangulation. Various attachments and accessories are used. Surface grinding and grinding wheel safety are introduced. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 234 Advanced Milling Machine (5)**

This course is the advanced study of the milling machine. Skill is developed in making open setups and in locating holes by means of layout and triangulation. Various attachments and accessories are used. Surface grinding and grinding wheel safety are introduced. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 235 Applied Lathe (5)**

Students are encouraged to take Machine Shop 236 concurrently with Machine Shop 235. In this course the student must independently carry out assignments on the lathe. Emphasis is on the interchangeability of workpieces, fits, and finishes. Initiative and ingenuity are encouraged. Tool and cutter grinding is introduced. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 236 Applied Milling Machine (5)**

The student is encouraged to take Machine Shop 235 concurrently with Machine Shop 236. In this course the student must independently carry out assignments on the milling machine. Emphasis is on the interchangeability of workpieces, fits, and finishes. Initiative and ingenuity are encouraged. Tool and cutter grinding is introduced. Laboratory fee. (1 Lec., 8 Lab.)

**(MS) 702 Cooperative Work Experience (2)**

(See Cooperative Work Experience). (1 Lec., 10 Lab.)

**(MS) 704 Cooperative Work Experience (4)**

(See Cooperative Work Experience). (1 Lec., 20 Lab.)

**MANAGEMENT****(MGT) 136 Principles Of Management (3)**

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. This course is offered on campus and may be offered via television. (3 Lec.)

**(MGT) 150 Management Training (4)**

Prerequisite: Concurrent enrollment in Management 154 or demonstrated competence approved by 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. (20 Lab.)

**(MGT) 151 Management Training (4)**

Prerequisite: Concurrent enrollment in Management 155 or demonstrated competence approved by 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. (20 Lab.)

**(MGT) 153 Small Business Management (3)**

The student will study 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. (3 Lec.)

**(MGT) 154 Management Seminar: Role Of Supervision (2)**

Prerequisite: Concurrent enrollment in Management 150 or demonstrated competence approved by 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. (2 Lec.)

**(MGT) 155 Management Seminar: Personnel Management (2)**

Prerequisite: Concurrent enrollment in Management 151 or demonstrated competence approved by 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. (2 Lec.)

**(MGT) 157 Small Business Bookkeeping And Accounting (3)**

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. (3 Lec.)

**(MGT) 171 Introduction To Supervision (3)**

Prerequisite: Enrollment in Technical/Occupational program or demonstrated competence approved by the instructor. This course is a study of today's supervisors and their problems. The practical concepts of modern-day, first-line supervision are described. Emphasis is on the supervisor's major functions, such as facilitating relations with others, motivating, communicating, handling grievances, recruiting, counseling, and cost accounting. (3 Lec.)

**(MGT) 210 Small Business Capitalization, Acquisition And Finance (3)**

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. (3 Lec.)

**(MGT) 211 Small Business Operations (3)**

Problems of daily operations of small business are introduced. Topics include compliance with regulations, personnel administration, accounts receivable management, and business insurance. (3 Lec.)

**(MGT) 212 Special Problems In Business (1)**

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. (1 Lec.)

**(MGT) 242 Personnel Administration (3)**

This course presents the fundamentals, theories, principles, and practices of people 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. (3 Lec.)

**(MGT) 250 Management Training (4)**

Prerequisite: Concurrent enrollment in Management 254 or demonstrated competence approved by 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. (20 Lab.)

**(MGT) 251 Management Training (4)**

Prerequisite: Concurrent enrollment in Management 255 or demonstrated competence approved by 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. (20 Lab.)

**(MGT) 254 Management Seminar: Organizational Development (2)**

Prerequisite: Concurrent enrollment in Management 250 or demonstrated competence approved by 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. (2 Lec.)

**(MGT) 255 Management Seminar: Planning, Strategy, And The Decision Process (2)**

Prerequisite: Concurrent enrollment in Management 251 or demonstrated competence approved by 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. (2 Lec.)

**(MGT) 703 Cooperative Work Experience (3)**

(See Cooperative Work Experience). (1 Lec., 15 Lab.)

**(MGT) 704 Cooperative Work Experience (4)**

(See Cooperative Work Experience). (1 Lec., 20 Lab.)

## MARKETING

**(MKT) 137 Principles of Retailing (3)**

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. (3 Lec.)

**(MKT) 206 Principles of Marketing (3)**

The scope and structure of marketing are examined. Marketing functions, consumer behavior, market research, sales forecasting, and relevant state and federal laws are analyzed. (3 Lec.)

**(MKT) 230 Salesmanship (3)**

The selling of goods and ideas is the focus of this course. Buying motives, sales psychology, customer approach, and sales techniques are studied. (3 Lec.)

**(MKT) 233 Advertising and Sales Promotion (3)**

This course introduces the principles, practices, and media of persuasive communication. Topics include buyer behavior, use of advertising media, and methods of stimulating sales people and retailers. The management of promotion programs is covered, including goals, strategies, evaluation, and control of promotional activities. (3 Lec.)

## MATHEMATICS

**(MTH) Mathematics**

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

**(MTH) 101 College Algebra (3)**

Prerequisites: Two years of high school algebra and an appropriate assessment test score 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 proofs. (3 Lec.)

**(MTH) 102 Plane Trigonometry (3)**

Prerequisite: Mathematics 101 or equivalent. This course is a study of angular measures, functions of angles, identities, solutions of triangles, equations, inverse trigonometric functions, and complex numbers. (3 Lec.)

**(MTH) 111 Mathematics for Business and Economics I (3)**  
Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course includes equations, inequalities, matrices, linear programming; linear, quadratic, polynomial, rational, exponential, and logarithmic functions; and probability. Applications to business and economics problems are emphasized. (3 Lec.)

**(MTH) 112 Mathematics for Business and Economics II (3)**  
Prerequisite: Mathematics 111. This course includes sequences and limits, differential calculus, integral calculus, and appropriate applications. (3 Lec.)

**(MTH) 115 College Mathematics I (3)**  
Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. Designed for liberal arts students, this course includes the study of sets, logic, sets of numbers, and mathematical systems. Additional topics will be selected from mathematics of finance, introduction to computers, introduction to statistics, and introduction to matrices. Recreational and historical aspects of selected topics are also included. (3 Lec.)

**(MTH) 116 College Mathematics II (3)**  
Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. Designed for liberal arts students, this course includes the study of algebra, linear programming, permutations, combinations, probability, and geometry. Recreational and historical aspects of selected topics are also included. (3 Lec.)

**(MTH) 121 Analytic Geometry (3)**  
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. (3 Lec.)

**(MTH) 124 Calculus I (5)**  
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. (5 Lec.)

**(MTH) 130 Business Mathematics (3)**  
Prerequisites: One year of high school algebra and an appropriate assessment test score 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. (3 Lec.)

**(MTH) 139 Applied Mathematics (3)**  
This course is a study of commercial, technical, and other applied uses of mathematics. Topics vary to fit the needs of the students enrolled in a particular technical/occupational program. The prerequisite will vary accordingly and be determined by the needed skills. (3 Lec.)

**(MTH) 195 Technical Mathematics I (3)**  
Prerequisites: One year of high school algebra and an appropriate assessment test score or Developmental Math-

ematics 091 or the equivalent. This course is designed for technical students. It covers the basic concepts and fundamental facts of plane and solid geometry, computational techniques and devices, units and dimensions, the terminology and concepts of elementary algebra, functions, coordinate systems, simultaneous equations, and stated problems. (3 Lec.)

**(MTH) 196 Technical Mathematics II (3)**  
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. (3 Lec.)

**(MTH) 202 Introductory Statistics (3)**  
Prerequisite: Two years of high school algebra or demonstrated competence approved by the instructor. 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. (3 Lec.)

**(MTH) 225 Calculus II (4)**  
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. (4 Lec.)

**(MTH) 226 Calculus III (3)**  
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. (3 Lec.)

**(MTH) 230 Differential Equations (3)**  
Prerequisite: Mathematics 225 or demonstrated competence approved by 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. (3 Lec.)

## MUSIC

**(MUS) 103 Guitar Ensemble (1)**  
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. (3 Lab.)

**(MUS) 104 Music Appreciation (3)**  
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. (3 Lec.)

**(MUS) 110 Music Literature (3)**  
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. (3 Lec.)

**(MUS) 111 Music Literature (3)**

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. (3 Lec.)

**(MUS) 113 Foundations Of Music I (3)**

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. (3 Lec.)

**(MUS) 114 Foundations In Music II (3)**

Prerequisite: Music 113. This course prepares students with limited music training for Music 145 and increases their general music understanding. Emphasis is on rhythmic and melodic training, chord functions, melody, textures, and basic analysis of music. (3 Lec.)

**(MUS) 115 Jazz Improvisation (2)**

The art of improvisation is introduced. Basic materials, aural training, analysis, and common styles are presented. This course may be repeated for credit. (1 Lec., 2 Lab.)

**(MUS) 117 Piano Class I (1)**

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. (2 Lab.)

**(MUS) 118 Piano Class II (1)**

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. (2 Lab.)

**(MUS) 119 Guitar Class I (1)**

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. (2 Lab.)

**(MUS) 120 Guitar Class II (1)**

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. (2 Lab.)

**(MUS) 121-143 Applied Music-Minor (1)**

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. Private music may be repeated for credit. Laboratory fee required. (1 Lec.)

**(MUS) 145 Music Theory I (3)**

This course presents the basic elements of music. Emphasis is on notation, cadences, classification of diatonic triads, scales and modes. (3 Lec.)

**(MUS) 146 Music Theory II (3)**

Prerequisite: Music 145. This course focuses on part-writing and harmonization with triads and their inversions. Also included is a chord vocabulary expanded to include materials from the common practice period as well as later periods. (3 Lec.)

**(MUS) 150 Chorus (1)**

Prerequisite: Demonstrated competence approved by the instructor. A wide variety of music representing the literature of the great eras of music history is studied and performed. This course may be repeated for credit. (3 Lab.)

**(MUS) 151 Voice Class I (1)**

This course is for non-voice majors. It presents the principles of breathing, voice production, tone control, enunciation, and phrasing in two group lessons a week. This course may be repeated for credit. (2 Lab.)

**(MUS) 152 Voice Class II (1)**

This course is a continuation of Music 151. 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. (2 Lab.)

**(MUS) 155 Vocal Ensemble (1)**

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. (3 Lab.)

**(MUS) 156 Madrigal Singers (1)**

A group of vocalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. (3 Lab.)

**(MUS) 160 Band (1)**

Prerequisite: Demonstrated competence approved by 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. (3 Lab.)

**(MUS) 161 Musicianship I (1)**

This course relates to topics in Music 145. Aural skills including sight-singing, ear training, and keyboard are developed. (3 Lab.)

**(MUS) 162 Musicianship II (1)**

Prerequisite: Music 161. This course relates to topics in Music 146. Aural music skills including sight-singing, ear training, and keyboard are further developed. (3 Lab.)

**(MUS) 174 Keyboard Ensemble (1)**

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. (3 Lab.)

**(MUS) 176 Symphonic Wind Ensemble (1)**

In the symphonic wind ensemble students study and perform stylistic literature of all periods. This course may be repeated for credit. (3 Lab.)

**(MUS) 177 Chamber Ensemble (1)**

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. (3 Lab.)

**(MUS) 181 Lab Band (1)**

Prerequisite: The demonstrated competence approved by 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. (3 Lab.)

**(MUS) 185 Stage Band (1)**

Prerequisite: The demonstrated competence approved by 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 course may be repeated for credit. (3 Lab.)

**(MUS) 199 Recital (1)**

Students of private lessons perform before an audience one period each week. Credit for this course does not apply to the Associates Degree. This course may be repeated for credit. (2 Lab.)

**(MUS) 203 Composition (3)**

Prerequisites: Music 145 and 146 or demonstrated competence approved by 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. (3 Lec.)

**(MUS) 217 Piano Class III (1)**

Prerequisite: Music 118 or the equivalent. This course is a continuation of functional keyboard skills, including harmonization, sightreading, accompanying styles, improvisation, and technical exercises. It is designed for the music major preparing for the piano proficiency exam, but is also open to any interested student. It is recommended that music majors also study privately. (2 Lab.)

**(MUS) 218 Piano Class IV (1)**

Prerequisite: Music 217 or the equivalent. This course is a continuation of functional keyboard skills in Music 217 with greater emphasis on advanced harmonization and appropriate technical skills. It is designed as a preparation for the piano proficiency exam for the music major, but is also open to any interested student. It is recommended that music majors also study privately. (2 Lab.)

**(MUS) 221-243 Applied Music-Concentration (2)**

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. Laboratory fee required. Private music may be repeated for credit. (1 Lec.)

**(MUS) 245 Music Theory III (3)**

Prerequisite: Music 146. This course is a continuation of the study of music theory. It includes the materials of modulation, larger forms, and thematic development. (3 Lec.)

**(MUS) 246 Music Theory IV (3)**

Prerequisite: Music 245. This course is a continuation of the topics developed in Music 245. The preceding materials are expanded to include melody, harmony, tonality, and the formal processes of 20th century music. (3 Lec.)

**(MUS) 251-270 Applied Music-Major (3)**

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. Laboratory fee. (1 Lec.)

**(MUS) 271 Musicianship III (1)**

Prerequisite: Music 162. This course relates to topics in Music 245. Aural music skills, including sight-singing, ear training, and keyboard are developed. (3 Lab.)

**(MUS) 272 Musicianship IV (1)**

Prerequisite: Music 271. This course relates to topics in Music 246. Aural music skills, including sight-singing, ear training, and keyboard are developed. (3 Lab.)

**OFFICE CAREERS****(OFC) 103 Speedwriting Theory (4)**

Prerequisite: Credit or concurrent enrollment in Office Careers 172 or one year of typing. The principles of speedwriting are introduced. Included is the development of the ability to read, write and transcribe speedwriting notes. Basic spelling, grammar and punctuation rules are reviewed. (3 Lec., 2 Lab.)

**(OFC) 106 Speedwriting Dictation and Transcription (4)**

Prerequisite: Office Careers 103. Principles of speedwriting are applied to build dictation speed and transcription rate. Special attention is given to the review of grammar, spelling and punctuation rules. Laboratory fee. (3 Lec., 2 Lab.)

**(OFC) 143 Contemporary Topics In Office Careers (1)**

Prerequisite: Demonstrated competence approved by 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 difference emphasis up to six hours. (1 Lec.)

**(OFC) 150 Automated Filing Procedures (3)**

This course introduces the basic principles and procedures of records storage and control. Topics include records storage methods; procedures for the operation and control of manual and automated storage systems; rules for indexing; and principles for the selection of records equipment and supplies. (2 Lec., 2 Lab.)

**(OFC) 159 Beginning Shorthand (4)**

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. (3 Lec., 2 Lab.)

**(OFC) 160 Office Calculating Machines (3)**

This course focuses on the development of skills in using office machines. Adding machines, printing calculators, and electronic display calculators, and electronic printing calculators are included. Emphasis is on developing the touch system for both speed and accuracy. Office Careers 160 is equivalent to Office Careers 192, 193, and 194. Laboratory fee. (3 Lec.)



**(OFC) 162 Office Procedures (3)**

Prerequisite: Office Careers 173 or concurrent enrollment or demonstrated competence approved by the instructor. This course bridges the gap between the basic skills courses and current office practices. Topics include records management, electronic filing, reprographics, mail, telephone usage, financial transactions, and interpersonal relations. (3 Lec.)

**(OFC) 166 Intermediate Shorthand (4)**

Prerequisites: Office Careers 159 or one year of shorthand in high school, Office Careers 172 or one year of typing in high school. The principles of Gregg Shorthand are studied. Emphasis is on increased speed dictation, accuracy in typing from shorthand notes, and beginning techniques of transcription skills. Also included are oral reading, speed building, and grammar. Office Careers 166 is equivalent to Office Careers 187, 188, and 189. Laboratory fee. (3 Lec., 2 Lab.)

**(OFC) 167 Legal Terminology and Transcription (3)**

Prerequisite: Completion of Office Careers 173 or typing speed of 50 words per minute. Legal terms are the focus of this course. Included are the spelling and use of legal terms and Latin words and phrases. Intensive practice is provided in building speed and accuracy in the transcription of legal terms. Office Careers 172 is equivalent to Office Careers 176, 177, and 178. Laboratory fee. (3 Lec.)

**(OFC) 172 Beginning Typing (3)**

This course is for students with no previous training in typing. Fundamental techniques in typing are developed. The skills of typing manuscripts, business letters, and tabulations are introduced. Office Careers 172 is equivalent to Office Careers 176, 177, and 178. Laboratory fee. (2 Lec., 3 Lab.)

**(OFC) 173 Intermediate Typing (3)**

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. (2 Lec., 3 Lab.)

**(OFC) 176 Keyboarding (1)**

This course is for students with no previous training in typing. The course introduces the typewriter parts. Alphabetic keys, numeric keys, and symbol keys are covered. Fundamental techniques are refined, and speed is developed. Laboratory fee. (1 Lec., 1 Lab.)

**(OFC) 177 Beginning Typing II (1)**

Prerequisite: Office Careers 176. Practical techniques for business correspondence are developed. Memorandums, personal letters, and business letters are covered. Exercises to increase skill are stressed. Laboratory fee. (1 Lec.)

**(OFC) 178 Beginning Typing III (1)**

Prerequisite: Office Careers 176. The typing of manuscripts and tables is emphasized. Production typing is included, and proper report typing is developed. Exercises to increase skill are also included. Laboratory fee. (2 Lab.)

**(OFC) 179 Office Information Systems Concepts (2)**

This course introduces information/word processing and describes its effect on traditional office operations. An understanding of basic information word processing principles, concepts, terminology and advantages of word processing environment system is introduced. This course does not include the operation of a dedicated word processor or microcomputer. (2 Lec.)

**(OFC) 182 Introduction to Word Processing Equipment (1)**

Prerequisites: Office Careers 173 and Office Careers 179 or concurrent enrollment. This course introduces the fundamental techniques required in the operation of word processing equipment. Basic concepts of electronic storage and retrieval involved in creating, printing, centering, and revising documents are introduced. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

**(OFC) 183 Keyboarding for Speed and Accuracy (1)**

This course provides intensive practice drills for developing speed and accuracy on one-, three-, and five-minute writings. May be taken concurrently with Intermediate Typing or Advanced Typing Applications. May be repeated for credit. Laboratory fee. (2 Lab.)

**(OFC) 185 Basic Machine Transcription (1)**

Prerequisite: Office Careers 172. This course introduces the basic equipment, techniques, and skills required to transcribe recorded business information into mailable documents. Emphasis is placed on grammar, punctuation, and spelling skills required in word processing operations. Automated equipment and audio transcription machines are used. Laboratory fee. (1 Lec., 1 Lab.)

**(OFC) 187 Intermediate Shorthand I (2)**

Prerequisite: Prior shorthand experience equivalent to Office Careers 159 or one year of shorthand in high school. This course is for students who have a basic knowledge of Gregg Shorthand theory and the ability to take dictation at approximately 50 words per minute. The course is a review of selected shorthand phrases, brief forms, word families, and word beginnings and endings. Included are the proper use of basic punctuation, typing format, and simple business letters. Laboratory fee. (2 Lec.)

**(OFC) 188 Intermediate Shorthand II (1)**

This course is designed for students who have a sound knowledge of Gregg Shorthand theory and the ability to take dictation at approximately 70-80 words per minute. The course is a review of selected shorthand phrases, brief forms, word families, and word beginnings and endings. The typing of accurate and attractive letters from shorthand notes is emphasized. Laboratory fee. (1 Lec.)

**(OFC) 189 Intermediate Shorthand III (1)**

This course is designed for students who have a thorough and complete knowledge of Gregg Shorthand theory and are interested in increasing speed. Special attention is on producing mailable letters within certain time periods. The dictation speed is flexible and depends on student abilities. Laboratory fee. (2 Lab.)



**(OFC) 190 Principles of Word Processing (4)**

Prerequisite: Office Careers 173 or concurrent enrollment. This course introduces word processing and describes its effect on traditional office operations. An understanding of basic word processing principles and fundamental techniques required in the operation of word processing and transcription equipment are introduced. Emphasis is placed on grammar, punctuation, and spelling skills required in word processing operations. Office Careers 190 is equivalent to Office Careers 179, 182, and 185. Laboratory fee. (3 Lec., 3 Lab.)

**(OFC) 192 Office Machines I (1)**

Business mathematical skills needed to operate office machines are reviewed. Ten-key touch development is introduced. Speed development is incorporated with accuracy requirements. Laboratory fee. (1 Lec.)

**(OFC) 193 Office Machines II (1)**

Prerequisite: Office Careers 192. This course offers extensive training on basic office machines. Speed development and business applications are stressed. Laboratory fee. (1 Lec.)

**(OFC) 194 Office Machines III (1)**

Prerequisite: Office Careers 192. Extensive training on basic office machines is continued. Speed development and business applications are stressed. Laboratory fee. (1 Lec.)

**(OFC) 231 Business Communications (3)**

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. (3 Lec.)

**(OFC) 256 Office Management (3)**

This course focuses on the organization, design, and control of office activities. Topics include office practice, office services, and wage payment plans. The selection, training and supervision of employees are covered. Office planning, organizing, and controlling techniques are presented. Responsibilities of the office manager are also included. (3 Lec.)

**(OFC) 266 Advanced Shorthand (4)**

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 mailable, typed transcriptions under timed conditions is also stressed. Vocabulary and extensive production work capabilities are developed. Laboratory fee. (3 Lec., 2 Lab.)

**(OFC) 273 Advanced Typing Applications (2)**

Decision-making and production of all types of business materials under timed 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. (1 Lec., 2 Lab.)

**(OFC) 274 Legal Secretarial Procedures (3)**

Prerequisites: Office Careers 173 or typing speed of 50 words per minute; Office Careers 166 or shorthand dictation of 80 words per minute. This course focuses on procedures of the legal secretary. Topics include reminder and filing systems, telephone usage, dictation and correspondence, the preparation of legal documents, and the court system. Client contacts, use of law library, research techniques, timekeeping, billing, bookkeeping, and ethics are also covered. Ways to obtain a position as a legal secretary are described. (3 Lec.)

**(OFC) 275 Secretarial Procedures (3)**

Prerequisites: Credit or concurrent enrollment in Office Careers 174, credit or concurrent enrollment in either Office Careers 166. Emphasis is on initiative, creative thinking, and follow-through. Topics include in-basket exercises, decision-making problems, and use of shorthand and transcription skills. Public and personal relations, supervisory principles, business ethics, and the organizing of time and work are also covered.

**(OFC) 282 Word Processing Applications (1)**

Prerequisites: Office Careers 190 or 182 and completion of or concurrent enrollment in Office Careers 185. This course is designed for students who have a basic knowledge of word processing equipment. Advanced word processing concepts and machine functions are developed on a specific keyboard. Special emphasis is placed on producing mailable documents. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

**(OFC) 283 Specialized Software (1)**

Prerequisite: Office Careers 282 or demonstrated competence approved by the instructor. Current information/word processing technology is presented. Specialized applications are performed using automated equipment which the student has previously mastered. Applications will include graphics, math functions, spreadsheets, and the use of other software packages. Dedicated word processing equipment or microcomputers will be used in this course. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

**(OFC) 285 Applied Machine Transcription (1)**

Prerequisites: Office Careers 173 or 190 and Office Careers 185 or demonstrated competence approved by the instructor. This course is designed for students with basic skills in machine transcription. Emphasis is placed on increasing accuracy and speed in the timed transcription of recorded information. Composing and dictating business communications are introduced. (1 Lec., 1 Lab.)

**(OFC) 713, 803, 813 Cooperative Work Experience (3)**

(See Cooperative Work Experience). (1 Lec., 15 Lab.)

**(OFC) 714, 804, 814 Cooperative Work Experience (4)**

(See Cooperative Work Experience). (1 Lec., 20 Lab.)

**PHILOSOPHY****(PHI) 102 Introduction To Philosophy (3)**

The fundamental problems in philosophy are surveyed. Methods to deal with the problems are discussed. Ancient and modern views are examined as possible solutions. (3 Lec.)

**(PHI) 105 Logic (3)**

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. (3 Lec.)

**(PHI) 202 Introduction To Social And Political Philosophy (3)**

The relationships of philosophical ideas to the community are presented. Emphasis is on concepts of natural rights, justice, education, freedom, and responsibility. (3 Lec.)

**(PHI) 203 Ethics (3)**

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 metaphysical and epistemological bases are vivified. Emphasis is on applying ethical principles in life. (3 Lec.)

**(PHI) 210 Studies In Philosophy (3)**

Prerequisite: Three hours of philosophy and demonstrated competence approved by the instructor. A philosophical problem, movement, or special topic is studied. The course topic changes each semester. This course may be repeated for credit. (3 Lec.)

**PHOTOGRAPHY****(PHO) 110 Introduction To Photography And Photo-Journalism (3)**

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 films and papers. Artificial lighting is studied. Laboratory fee. (2 Lec., 4 Lab.)

**(PHO) 111 Advanced Photography And Photo-Journalism (3)**

Techniques learned in Photography 110 are refined. Emphasis is on photographic communication. Laboratory fee. (2 Lec., 4 Lab.)

**PHYSICAL EDUCATION****(PEH) 100 Lifetime Sports Activities (1)**

Beginning level skills in various lifetime sports are presented as well as rules, etiquette, safety, strategy, offensive and defensive elements, and conditioning activities where appropriate. Physical Education 100 may be repeated for credit when students select different activities in subsequent semesters. Laboratory fee. (3 Lab.)

**(PEH) 101 Health for Today (3)**

Emphasis is placed on relating course content to lifestyle to foster a better understanding of the major health issues of today. Current issues include, but are not limited to: emotional health, chemical use and abuse, human sexuality, major diseases, physical fitness, nutrition, aging, death and dying. (3 Lec.)

**(PEH) 104 Beginning Soccer (1)**

Course content emphasizes the basic playing skills of both indoor and outdoor soccer at the beginner level, as well as rules, strategies, safety, offensive and defensive patterns of play, and competitive activities. Laboratory fee. (3 Lab.)

**(PEH) 112 Beginning Softball (1)**

Course content includes the basic playing skills of softball at the beginner level, as well as rules, strategies, safety, offensive and defensive elements, and competitive activities. These common elements will be applied to fast pitch, slow pitch, and coed softball. Laboratory fee. (3 Lab.)

**(PEH) 113 Beginning Handball And Racquetball (1)**

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. (3 Lab.)

**(PEH) 114 Beginning Badminton (1)**

Course content emphasizes the basic playing skills of badminton at the beginner level, as well as rules, strategies, safety, offensive and defensive elements, and competitive activities. Each of the above elements will be applied to the singles, doubles, and mixed-double games. Laboratory fee. (3 Lab.)

**(PEH) 115 Physical Fitness (1)**

Students are introduced to fitness related activities for the purposes of gaining the knowledge and skills necessary to evaluate personal fitness level and to develop a personal lifelong fitness program. Activities include, but are not limited to: aerobics, circuit training, flexibility and agility exercises, and weight training. Physical Education 115 may be repeated for credit. Laboratory fee. (3 Lab.)

**(PEH) 117 Beginning Archery (1)**

The beginning level skills of target shooting, bow hunting, clout shooting, and wand and trap shooting are emphasized, as well as history, rules of competition, preparation and care of all archery equipment, and safety. Laboratory fee. (3 Lab.)

**(PEH) 118 Beginning Golf (1)**

Course content emphasizes the basic skills involved in club selection, golf course analysis, shot selection and execution of the golf swing. Rules, scoring, handicapping and etiquette are included. Equipment is furnished. Laboratory fee. (3 Lab.)

**(PEH) 119 Beginning Tennis (1)**

This course emphasizes the acquisition of beginning level skills in the execution of forehand strokes, backhand strokes, the serve, and the volley. Rules, strategies of the singles and doubles games, etiquette, safety, and competitive activities are included. Laboratory fee. (3 Lab.)

**(PEH) 120 Beginning Bowling (1)**

Basic bowling skills at the beginner level are emphasized as well as rules, strategies, safety, scoring, and competitive activities. All classes are conducted at an off-campus bowling lane. Laboratory fee. Lane fee. (3 Lab.)

**(PEH) 121 Folk Dance (1)**

Participation is provided in a variety of folk dances from other lands. The study of cultural backgrounds and costumes is included. Laboratory fee. (3 Lab.)

**(PEH) 122 Beginning Gymnastics (1)**

Beginning level skills in both men's and women's all-around gymnastic events are emphasized. Men's events include horizontal bar, pommel horse, rings, vaulting, floor exercise, and parallel bars. Women's events include floor exercise, vaulting, balance beam, and uneven parallel bars. Basic tumbling skills are also included. All appropriate events will be incorporated into a beginner's level routine. Laboratory fee. (3 Lab.)

**(PEH) 123 Beginning Swimming (1)**

This course is designed to teach a non-swimmer or a shallow water swimmer only to become a safe and efficient deep water swimmer. After the development of sufficient skill to perform a modified crawl stroke, the elementary back stroke, survival floating and jumping into deep water, leveling off and changing directions, swimmers will be able to swim in deep water. Laboratory fee. (3 Lab.)

**(PEH) 124 Social Dance (1)**

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 two-step, Cotton-Eyed Joe, square dance, and other dances. Laboratory fee. (3 Lab.)

**(PEH) 125 Conditioning Exercise (1)**

This course focuses on understanding exercise and its effect on the body. Physical fitness is improved through a variety of conditioning activities. A uniform is required. Laboratory fee. (3 Lab.)

**(PEH) 126 Aerobics (1)**

This course emphasizes the development of cardiovascular endurance by utilizing choreographed routines which may combine basic dance patterns with walking, jogging, and jumping, etc. Depending on the physical fitness level of the student, each routine can be performed at different intensities. This course may be repeated for credit. Laboratory fee. (3 Lab.)

**(PEH) 127 Beginning Basketball And Volleyball (1)**

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. (3 Lab.)

**(PEH) 128 Social And Folk Dance (1)**

Social and folk dance are introduced. Laboratory fee. (3 Lab.)

**(PEH) 129 Modern Dance (1)**

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. (3 Lab.)

**(PEH) 130 Beginning Tumbling And Trampoline (1)**

Basic skills and techniques involved in tumbling and trampolining are taught. 24 class hours will be devoted to each activity. Laboratory fee. (3 Lab.)

**(PEH) 131 Weight Training And Conditioning (1)**

Instruction and training in weight training and conditioning techniques are offered. A uniform is required. The course may be repeated for credit. Laboratory fee. (3 Lab.)

**(PEH) 132 Self-Defense (1)**

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. (3 Lab.)

**(PEH) 134 Outdoor Education (1)**

Knowledge and skills in outdoor education and camping are presented. Planned and incidental experiences take place, including a week-end camp-out. Laboratory fee. (3 Lab.)

**(PEH) 144 Introduction To Physical Education (3)**

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. (3 Lec.)

**(PEH) 147 Sports Officiating I (3)**

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. (2 Lec., 2 Lab.)

**(PEH) 148 Sports Officiating II (3)**

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. (2 Lec., 2 Lab.)

**(PEH) 200 Lifetime Sports Activities II (1)**

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. (3 Lab.)

**(PEH) 217 Intermediate Archery (1)**

Prerequisite: Successful completion of Physical Education 117 or approval of instructor. Archery activities and skills presented in Physical Education 117 are reviewed with emphasis placed on competitive target shooting and field archery. Laboratory fee. (3 Lab.)

**(PEH) 218 Intermediate Golf (1)**

Prerequisite: Successful completion of Physical Education 118 or approval of instructor. Skills and techniques presented in Physical Education 118 are refined beyond the beginner level. Analysis and practice of the golf swing, swing theory and methods, strategy, and actual course playing are emphasized. Laboratory fee. Green fees. (3 Lab.)

**(PEH) 219 Intermediate Tennis (1)**

Prerequisite: Successful completion of Physical Education 119 or approval by the instructor. Emphasis is placed on proper execution of the strokes presented in Physical Education 119 as well as on specialty shots such as the lob, overhead, and spins. Competitive activities in singles, doubles and mixed doubles will be available. Laboratory fee. (3 Lab.)

**(PEH) 222 Intermediate Gymnastics (1)**

Prerequisite: Physical Education 122 or previous gymnastic training. Tumbling and the all-around events for men and women as presented in Physical Education 122 will be emphasized at the intermediate performance level. Course emphasis is placed on the development, preparation, and presentation of gymnastic routines. Laboratory fee. (3 Lab.)

**(PEH) 223 Intermediate Swimming (1)**

Prerequisite: Successful completion of Physical Education 123, Red Cross Beginning Swimmer Certificate or approval of instructor. The correct performance of the crawl, elementary back stroke, side stroke and breast stroke will be emphasized. Some speed and endurance swimming will be required. Laboratory fee. (3 Lab.)

**(PEH) 225 Skin and Scuba Diving (2)**

Prerequisite: Physical Education 223 or demonstrated competence approved by the instructor. 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) or the National Association of Underwater Instructors (NAUI) or the Young Men's Christian Association (YMCA). Laboratory fee. (1 Lec., 2 Lab.)

**(PEH) 226 Advanced Life Saving (1)**

Prerequisite: Physical Education 223 or deep water swimming ability. Successful completion of this course qualifies students for the Red Cross Advanced Life Saving Certificate. Laboratory fee. (3 Lab.)

**(PEH) 231 Intermediate Weight Training (1)**

Prerequisite: Physical Education 131. Skills and instruction in weight training techniques are developed beyond the beginner stage. This course may be repeated for credit. Laboratory fee. (3 Lab.)

**(PEH) 232 Intermediate Self Defense (1)**

Prerequisite: Physical Education 132 or demonstrated competence approved by 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. (3 Lab.)

**(PEH) 233 Jogging For Fitness (1)**

Development and improvement of physical fitness through jogging is emphasized. Fitness concepts and jogging skills will be introduced. Laboratory fee. (3 Lab.)

**(PEH) 234 Water Safety Instructor (2)**

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. (1 Lec., 2 Lab.)

**(PEH) 257 Advanced First Aid And Emergency Care (3)**

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. (3 Lec.)

## PHYSICS

**(PHY) 111 Introductory General Physics (4)**

Prerequisite: Two years of high school algebra, including trigonometry, or the equivalent. This course is for pre-dental, 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. (3 Lec., 3 Lab.)

**(PHY) 112 Introductory General Physics (4)**

Prerequisite: Physics 111. This course is a continuation of Physics 111. Electricity, magnetism, light, and sound are studied. Laboratory fee. (3 Lec., 3 Lab.)

**(PHY) 117 Concepts In Physics (4)**

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. (3 Lec., 3 Lab.)

**(PHY) 118 Concepts In Physics (4)**

This 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. (3 Lec., 3 Lab.)

**(PHY) 131 Applied Physics (4)**

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. (3 Lec., 3 Lab.)

**(PHY) 201 General Physics (4)**

Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is designed primarily for physics, chemistry, mathematics, and engineering majors. The principles and applications of mechanics, wave motion, and sound are studied. Emphasis is on fundamental concepts, problem-solving, notation, and units. The laboratory includes a one-hour problem session. Laboratory fee. (3 Lec., 3 Lab.)

**(PHY) 202 General Physics (4)**

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 fundamental concepts, problem-solving, notation and units. The laboratory includes a one-hour problem session. Laboratory fee. (3 Lec., 3 Lab.)

## POSTAL SERVICE ADMINISTRATION

### **(PSA) 110 Introduction to Postal Service (3)**

This course depicts and compares the private, corporate, and government agencies which have been responsible for mail services throughout the world. The current U.S. Postal Organization, mandated by public law, is studied as well as postal philosophy, policies, procedures, rules, regulations, planning, and organization cost control. (3 Lec.)

### **(PSA) 120 Mail Processing (3)**

Through discussion of mail processing and transportation procedures of the U.S. Postal Service, this course will provide the student with an in-depth view of flow characteristics involved in movement of mail from sender to recipient. The course will also include a study of the systems devised to attain maximum efficiency in mail handling with a minimum of errors. (3 Lec.)

### **(PSA) 122 Customer Services (3)**

This course provides functional information about mail delivery and collection systems and in-depth information about services provided for postal customers. Included in the course are rural and city delivery systems, marketing of postal products and service, and techniques of effective public relations. (3 Lec.)

### **(PSA) 216 Postal Management (3)**

This course will provide an overview of the laws and practices leading to the current labor situation in the postal service. Discussion will focus on the Equal Employment Opportunity Act, the development of labor unions, national and local agreements, grievance procedures and disciplinary action procedures. The student is given an opportunity to apply practical Postal Service and management theories in system analysis, problem solving grids and other tools of management decision making to arrive at solutions of Postal Service problems. (3 Lec.)

## PSYCHOLOGY

### **(PSY) 101 Introduction to Psychology (3)**

Introduction to Psychology surveys major topics in the study of behavior. Factors which determine and affect behavior are examined. Psychological principles are applied to the human experience. This course is offered on campus and may be offered via television. (3 Lec.)



### **(PSY) 103 Human Sexuality (3)**

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. (3 Lec.)

### **(PSY) 131 Applied Psychology and Human Relations (3)**

Psychological principles are applied to human relations problems in business and industry. Topics include group dynamics and adjustment factors for employment and advancement. (3 Lec.)

### **(PSY) 201 Developmental Psychology (3)**

Prerequisite: Psychology 101. This course is a study of human growth, development, and behavior. Emphasis is

on psychological changes during life. Processes of life from prenatal beginnings through adulthood and aging are included. (This course is offered on campus and may be offered via television.) (3 Lec.)



### **(PSY) 205 Psychology of Personality (3)**

Prerequisite: Psychology 101. This course is an introduction to the study of personality. Topics of personality and adjustment will be studied in the context of various personality theories. Emphasis will be on the application of those topics. (3 Lec.)

### **(PSY) 207 Social Psychology (3)**

Prerequisite: Psychology 101 or Sociology 101. Students may register for either Psychology 207 or Sociology 207 but may receive credit for only 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. (3 Lec.)

### **(PSY) 210 Selected Topics in Psychology (3)**

Prerequisite: Psychology 101. This course is an elective course designed to deal with specially selected topics in psychology. This course may be repeated for credit. (3 Lec.)

## READING

### **(RD) 101 College Reading and Study Skills (3)**

Comprehension techniques for reading college texts are emphasized. Also included are vocabulary development, critical reading, and rate flexibility. Study skills addressed include listening, notetaking, underlining, concentrating, and memory. (3 Lec.)

### **(RD) 102 Speed Reading And Learning (3)**

Reading and learning skills are addressed. Speed reading techniques and comprehension are emphasized. Learning and memory skills are also covered. (3 Lec.)

## REAL ESTATE

### **(RE) 130 Real Estate Principles (3)**

This course provides an overview of licensing for the real estate broker and salesman, ethics of practice, titles to and conveyancing of real estate, legal descriptions, law of agency, deeds, encumbrances and liens. Distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics are also included. Three classroom hours will be devoted to federal, state and local laws governing housing discrimination, housing credit discrimination, and community reinvestment. (3 Lec.)

### **(RE) 131 Real Estate Finance (3)**

Prerequisite: Real Estate 130 or concurrent enrollment in Real Estate 130 or equivalent. This course covers monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs and loan applications, processes, and procedures. Closing costs, alternative financial instruments, equal credit opportunity acts, community reinvestment act, and state housing agency are also included. (3 Lec.)

**(RE) 133 Real Estate Marketing (3)**

Prerequisite: Real Estate 130 or concurrent enrollment in Real Estate 130 or equivalent. The emphasis of this course is on real estate professionalism and ethics and the satisfaction of all parties. Topics covered include characteristics of successful salesmen, time management, psychology of marketing, listing procedures, advertising, negotiating and closing, financing, and the Deceptive Trade Practices-Consumer Protection Act, as amended, Section 17.01 et seq, Business and Commerce Code. (3 Lec.)

**(RE) 135 Real Estate Appraisal (3)**

Prerequisites: Real Estate 130 and 131 or the equivalent. This course focuses on principles and methods of appraising. Topics include central purposes and functions of an appraisal, social and economic determinant of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. (3 Lec.)

**RELIGION****(REL) 101 Religion In American Culture (3)**

This course examines the nature of religion in America. It covers important influences from the past and characteristic of current religious groups and movements. Emphasis is on understanding the role of religion in American life. (3 Lec.)

**(REL) 201 Major World Religions (3)**

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. (3 Lec.)

**SOCIAL SCIENCE****(SS) 131 American Civilization (3)**

Theories and institutions of modern society are introduced. Psychological, historical, socioculture, 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. (3 Lec.)

**(SS) 132 American Civilization (3)**

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. (3 Lec.)

**SOCIOLOGY****(SOC) 101 Introduction to Sociology (3)**

This course is a study of the nature of society and the sources of group life and social conflict. Topics include institutions, social change, processes, and problems. (This course is offered on campus and may be offered via television.) (3 Lec.)

**(SOC) 102 Social Problems (3)**

This course is a study of social problems which typically include: crime, poverty, minorities, deviance, population, and health care. Specific topics may vary from semester to semester to address contemporary concerns. (3 Lec.)

**(SOC) 103 Human Sexuality (3)**

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. (3 Lec.)

**(SOC) 204 American Minorities (3)**

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 of intergroup relations, social movements, and related social changes. (3 Lec.)

**(SOC) 207 Social Psychology (3)**

Prerequisite: Psychology 101 or Sociology 101. Students may register for either Psychology 207 or Sociology 207 but may receive credit for only 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. (3 Lec.)

**(SOC) 209 Selected Topics (3)**

Prerequisite: Sociology 101 or demonstrated competence approved by 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. (3 Lec.)

**SPANISH****(SPA) 101 Beginning Spanish (4)**

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

**(SPA) 102 Beginning Spanish (4)**

Prerequisite: Spanish 101 or the equivalent or demonstrated competence approved by the instructor. This course is a continuation of Spanish 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. (3 Lec., 2 Lab.)

**(SPA) 201 Intermediate Spanish (3)**

Prerequisite: Spanish 102 or the equivalent or demonstrated competence approved by the instructor. Reading, composition, and intense oral practice are covered. Grammar is reviewed. (3 Lec.)

**(SPA) 202 Intermediate Spanish (3)**

Prerequisite: Spanish 201 or the equivalent or demonstrated competence approved by the instructor. This course is a continuation of Spanish 201. Contemporary literature and composition are studied. (3 Lec.)



**(SPA) 203 Introduction To Spanish Literature (3)**

Prerequisite: Spanish 202 or the equivalent or demonstrated competence approved by the instructor. This course is an introduction to Spanish literature. It includes readings in Spanish literature, history, culture, art, and civilization. (3 Lec.)

**(SPA) 204 Introduction To Spanish Literature (3)**

Prerequisite: Spanish 202 or the equivalent or demonstrated competence approved by the instructor. This course is a continuation of Spanish 203. It includes readings in Spanish literature, history, culture, arts, and civilization. (3 Lec.)

**SPEECH COMMUNICATION****(SC) 101 Introduction to Speech Communication (3)**

Theory and practice of speech communication behavior in one-to-one, small group and public communication situations are introduced. Students learn more about themselves, improve skills in communicating with others, and make formal oral presentations. This course requires college-level skills in reading and writing. (3 Lec.)

**(SC) 105 Fundamentals Of Public Speaking (3)**

Public speaking is introduced. Topics include the principles of reasoning, audience analysis, collection of materials, and outlining. Emphasis is on giving well prepared speeches. (3 Lec.)

**(SC) 109 Voice and Articulation (3)**

Students may register for either Speech Communication 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. (3 Lec.)

**(SC) 205 Discussion And Debate (3)**

Public discussion and argumentation are studied. Both theories and techniques are covered. Emphasis is on evaluation, analysis, and logical thinking. (3 Lec.)

**(SC) 206 Oral Interpretation (3)**

Techniques of analyzing various types of literature are examined. Practice is provided in preparing and presenting selections orally. Emphasis is on individual improvement. (3 Lec.)

**THEATRE****(THE) 100 Rehearsal And Performance (1)**

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 performance of the current theatrical presentation of the division. This course may be repeated for credit. (4 Lab.)

**(THE) 101 Introduction To The Theatre (3)**

The various aspects of theatre are surveyed. Topics include plays, playwrights, directing, acting, theatres, artists, and technicians. (3 Lec.)

**(THE) 102 Contemporary Theatre (3)**

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. (3 Lec.)

**(THE) 103 Stagecraft I (3)**

The technical aspects of play production are studied. Topics include set design and construction, stage lighting, makeup, costuming, and related areas. (2 Lec., 3 Lab.)

**(THE) 104 Stagecraft II (3)**

Prerequisite: Theatre 103 or demonstrated competence approved by 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. (2 Lec., 3 Lab.)

**(THE) 105 Make-Up For The Stage (3)**

The craft of make-up is explored. Both theory and practice are included. Laboratory fee. (3 Lec.)

**(THE) 106 Acting I (3)**

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. (2 Lec., 3 Lab.)

**(THE) 107 Acting II (3)**

Prerequisite: Theatre 106 or demonstrated competence approved by the instructor. This course is a continuation of Theatre 106. Emphasis is on complex characterization, ensemble acting, stylized acting, and acting in period plays. (2 Lec., 3 Lab.)

**(THE) 108 Movement For The Stage (3)**

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. (2 Lec., 3 Lab.)

**(THE) 109 Voice And Articulation (3)**

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. (3 Lec.)

**(THE) 110 History Of Theatre I (3)**

Theatre is surveyed from its beginning through the 16th century. The theatre is studied in each period as a part of the total culture of the period. (3 Lec.)

**(THE) 111 History Of Theatre II (3)**

Theatre is surveyed from the 17th century through the 20th century. The theatre is studied in each period as a part of the total culture of the period. (3 Lec.)

**(THE) 112 Beginning Dance Technique In Theatre (3)**

Basic movements of the dance are explored. Emphasis is on swing movements, circular motion, fall and recovery, contraction and release, and contrast of literal and abstract movements. Body balance, manipulation of trunk and limbs, and the rhythmic flow of physical energy are developed. (2 Lec., 3 Lab.)



**(THE) 113 Intermediate Dance (3)**

Prerequisite: Theatre 112 or demonstrated competence approved by the instructor. Various aspects of dance are surveyed. Topics include the role of dance in total theatre, the evolution of dance styles, and the jazz style. Emphasis is on the flow of movement, body placement, dynamic intensity, level, focus, and direction. (2 Lec., 3 Lab.)

**(THE) 115 Mime (2)**

Prerequisite: Theatre 108. Mime is studied. Both the expressive significance and techniques of mime are included. (1 Lec., 2 Lab.)

**(THE) 199 Demonstration Lab (1)**

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. (1 Lab.)

**(THE) 205 Scene Study I (3)**

Prerequisites: Theatre 106 and 107. This 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. (2 Lec., 3 Lab.)

**(THE) 207 Scene Study II (3)**

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. (2 Lec., 3 Lab.)

**(THE) 208 Introduction To Technical Drawing (3)**

Basic techniques of drafting are studied. Isometrics, orthographic projections, and other standard procedures are included. The emphasis is on theatrical drafting, including groundplans, vertical sections, construction elevations, and spider perspective. (2 Lec., 3 Lab.)

**(THE) 209 Lighting Design (3)**

Prerequisites: Theatre 103 and 104. The design and techniques of lighting are covered. Practical experience in departmental productions is required for one semester. (2 Lec., 3 Lab.)

**(THE) 235 Costume History (3)**

Fashion costume and social customs are examined. The Egyptian, Greek, Roman, Gothic, Elizabethan, Victorian, and Modern periods are included. (3 Lec.)

## WELDING

**(WE) 111 Oxyfuel I (2)**

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. (60 Contact Hours)

**(WE) 112 Oxyfuel II (2)**

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. (60 Contact Hours)

**(WE) 113 Shielded Metal Arc Welding I (2)**

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. (60 Contact Hours)

**(WE) 114 Shielded Metal Arc Welding II (2)**

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. (60 Contact Hours)

**(WE) 115 Shielded Metal Arc Welding III (4)**

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 3/16" - 3/4" thickness range material in all positions. Laboratory fee. (120 Contact Hours)

**(WE) 116 Shielded Metal Arc Welding IV (4)**

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. (120 Contact Hours)

**(WE) 117 General Metal Layout (3)**

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. (90 Contact Hours)

**(WE) 118 Welding Inspection And Quality Control (4)**

Prerequisites: Welding 117 and six credit hours of welding lab courses or equivalent. This course is both 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. (120 Contact Hours)

**(WE) 211 Gas Tungsten Arc Welding I (2)**

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 18 gauge through 3/8" thick mild steel, stainless and aluminum. Welds will be made primarily in the flat and horizontal positions. Laboratory fee. (60 Contact Hours)

**(WE) 212 Gas Tungsten Arc Welding II (2)**

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. (60 Contact Hours)



**(WE) 213 Gas Tungsten Arc Welding III (4)**

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. (120 Contact Hours)

**(WE) 214 Gas Metal Arc Welding I (2)**

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 gauge 3/8" thick mild steel, stainless and aluminum, primarily in the flat and horizontal position. Laboratory fee. (60 Contact Hours)

**(WE) 215 Gas Metal Arc Welding II (2)**

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. (60 Contact Hours)

**(WE) 216 Gas Metal Arc Welding III (4)**

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. (120 Contact Hours)

**(WE) 217 Basic Welding Metallurgy (3)**

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. (90 Contact Hours)

**(WE) 218 Applied Welding Metallurgy (3)**

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 student's 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. (90 Contact Hours)

**(WE) 219 Welding Design (3)**

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. (90 Contact Hours)

**(WE) 221 Special Welding Applications (1)**

This is a skill development course designed to allow students to program their own specialized objectives under instructional supervision. This will permit the student to upgrade present skills or develop a new skill. This course may be repeated for credit as topics vary. Laboratory fee. (30 Contact Hours)

**(WE) 222 Special Welding Applications (2)**

This is a skill development course designed to allow students to program their own specialized objectives under instructional supervision. This will permit the student to upgrade present skills or develop a new skill. This course may be repeated for credit as topics vary. Laboratory fee. (60 Contact Hours)

**(WE) 223 Special Welding Applications (3)**

This is a skill development course designed to allow students to program their own specialized objectives under instructional supervision. This will permit the student to upgrade present skills or develop a new skill. This course may be repeated for credit as topics vary. Laboratory fee. (90 Contact Hours)

**(WE) 701, 711, 801, 811 Cooperative Work Experience (1)**  
(See Cooperative Work Experience). (1 Lec.; 5 Lab.)

**(WE) 702, 712, 802, 812 Cooperative Work Experience (2)**  
(See Cooperative Work Experience). (1 Lec.; 10 Lab.)

**(WE) 703, 713, 803, 813 Cooperative Work Experience (3)**  
(See Cooperative Work Experience). (1 Lec.; 15 Lab.)

**(WE) 704, 714, 804, 814 Cooperative Work Experience (4)**  
(See Cooperative Work Experience). (1 Lec.; 20 Lab.)

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