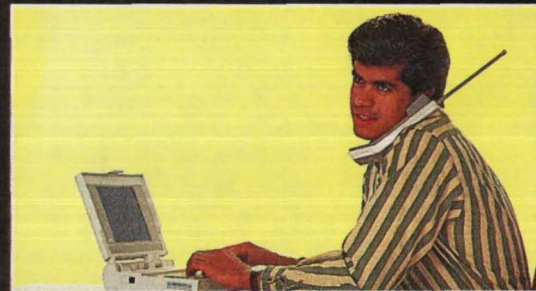
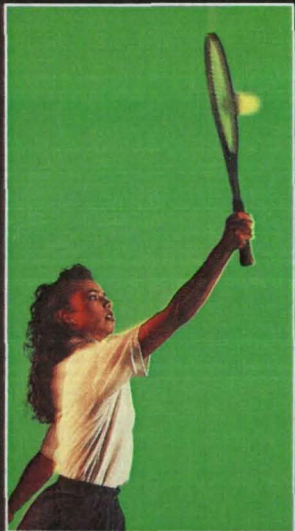
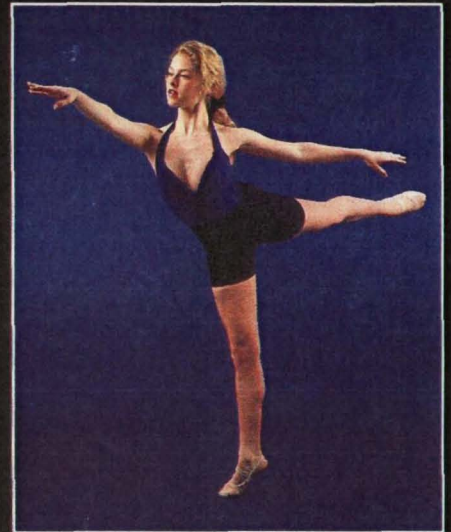
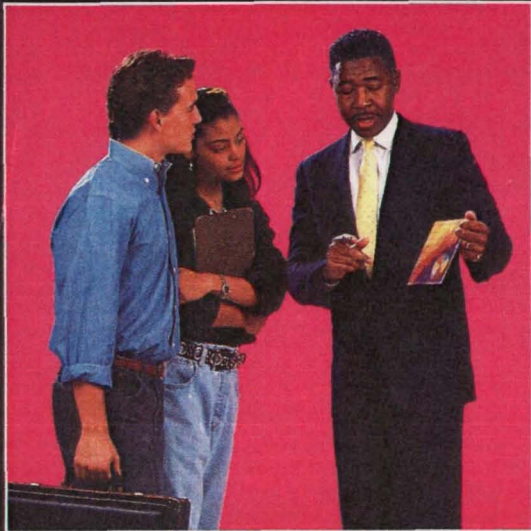


Dallas County Community College District 1993-94 Catalog



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TEXAS ACADEMIC SKILLS PROGRAM AND DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

In 1987, the Texas Legislature passed House Bill 2182. This bill, effective with the 1989 Fall Semester, requires that all Texas public college and university students be tested for reading, writing and mathematics skills. This legislation applies to students enrolling in the Dallas Community Colleges - Brookhaven, Cedar Valley, Eastfield, El Centro, Mountain View, North Lake and Richland.

Q. What is the Texas Academic Skills Program (TASP)?

A. TASP is a diagnostic testing program to assess the academic skills of students entering Texas public colleges and universities. It is designed to determine if students have the reading, writing and math skills necessary to succeed in college courses. The results of the test point to specific academic strengths and weaknesses and help advisors and counselors place students in courses in which they can do well and develop the necessary skills for college success. If students score poorly in one or more areas of the test, TASP requires them to immediately participate in appropriate remediation until all sections of the test are passed.

Q. Who must take the TASP test?

A. All Texas public college students must take TASP either before or during the semester of completing nine (9) college-level credit hours. Such scores must be reported to the college prior to the next registration. **ALL** students planning to become a certified teacher in Texas **MUST** take and pass TASP.

Q. Are there any exemptions from taking the TASP test?

A. Students who completed at least three (3) credit hours of college-level work prior to the 1989 Fall Semester will be exempt from taking TASP. Courses that count toward this exemption are those taken at the DCCCD or other regionally-accredited colleges or universities and which will count toward graduation; also, various credit-by-exam programs taken prior to Fall 1989 will result in an exemption. Students enrolled in a DCCCD academic program leading to a certificate may receive a waiver from TASP. Students who score at or above 90 percent correct on all sections of the exit level high school examination (TAAS), or score exceptionally high on the SAT or ACT examinations may be eligible for TASP exemption. The following DCCCD courses or their equivalents will **NOT** count toward the three hours: Any course numbered below 100, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199.

Q. Must a student take TASP prior to entering a DCCCD college?

A. No, it is not necessary that a student take TASP prior to enrolling. However, DCCCD students must take TASP prior to completing nine (9) hours of college-level courses and report scores prior to the next registration. In most cases, three courses will equal nine hours of credit. **ALL PERFORMANCE GRADES (A - F)** earned in courses will count toward the nine hours of credit.

Q. If students must take TASP by the completion of their ninth credit hour, does this mean they must pass TASP by that same time?

A. No, students are required only to take TASP prior to completing their ninth credit hour and report scores before their next DCCCD registration. If students do not "pass" a section or sections of TASP, they will be immediately mandated into remediation. Students must pass all sections of TASP before they can be awarded a degree from the DCCCD. Students who transfer to a four-year state college or university will not be allowed to take junior or senior courses until they have passed all sections of TASP.

Q. How and when will the TASP test be given?

A. The three-part (reading, writing and mathematics) test will be given on a statewide basis at designated testing sites. Each DCCCD college is a test site. During 1993, the test will be given on June 26, July 24, September 18 and November 13. During 1994, the test dates are February 26, April 23, June 18 and July 23. TASP registration materials are available in the Counseling Centers and/or Testing Centers of each of the DCCCD colleges.

Q. What is the cost of the TASP test? Is there a study guide available?

A. The cost for the total test is \$26. An Official TASP Study Guide can be purchased in DCCCD College Book Stores or be ordered by writing to TASP Project, P.O. Box 1403478, Austin, Texas, 78714-0347. Study Guides are available for reference use in each of the DCCCD college libraries.

Q. How will TASP affect students planning to attend a DCCCD college?

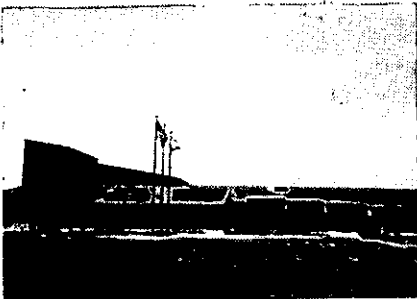
A. Students planning to attend a DCCCD college will continue to complete the usual steps for enrollment. TASP scores should be reported after being admitted by those who have taken TASP. However, for students who have not taken TASP, the college will indicate whether or not they should take the DCCCD's assessment test. Then, before completing their ninth credit hour, students must take the TASP test and report their scores before their next registration.

Q. Are students transferring into the DCCCD required to take TASP?

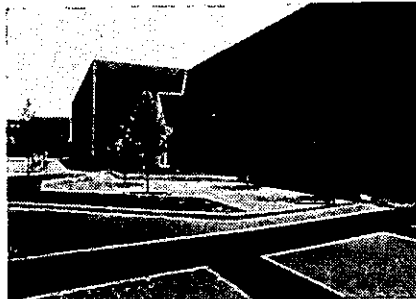
A. Unless transfer students qualify for one of the exemptions discussed above, they are required to take TASP. Transfer students from another Texas public college/university are expected to take TASP no later than the semester of enrollment in nine college-level credit hours, and the hours earned at other Texas public colleges **ARE USED** in computing the nine credit hours. Such students must report scores before registering for college-level hours in the DCCCD. Hours earned at private or out-of-state colleges/universities **ARE** used in computing such nine credit hours. If transfer students from such institutions have already exceeded nine hours, they must take TASP within their first semester of enrollment in the DCCCD.

If you would like more information on the Texas Academic Skills Program, please contact the college's Counseling Center.

1993-94 Dallas County Community College District Catalog



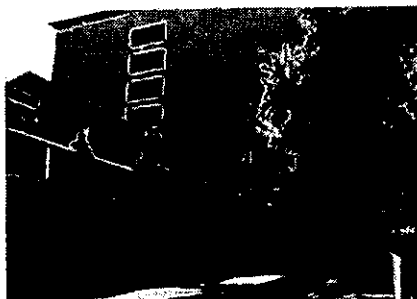
Brookhaven College
3939 Valley View Lane
Farmers Branch, Texas 75244



Cedar Valley College
3030 North Dallas Avenue
Lancaster, Texas 75134



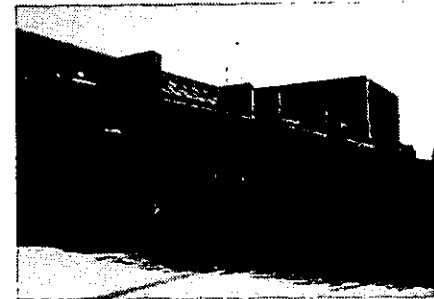
Eastfield College
3737 Motley Drive
Mesquite, Texas 75150



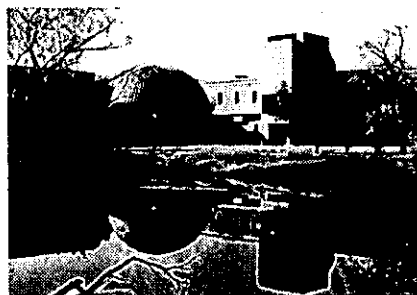
El Centro College
Main & Lamar Streets
Dallas, Texas 75202



Mountain View College
4849 West Illinois Avenue
Dallas, Texas 75211



North Lake College
5001 North MacArthur Boulevard
Irving, Texas 75062



Richland College
12800 Abrams Road
Dallas, Texas 75243

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

Educational opportunities are offered by the Dallas County Community College District without regard to race, color, age, national origin, religion, sex, or handicap.

1993-94 Academic Calendar

Summer Sessions, 1993

First Summer Session: (Based on 4 day class week, except for first week)

May 31 (M)	Memorial Day Holiday
June 2-3 (W-R)	Registration (Varies by Campus)
June 7 (M)	Classes Begin
June 10 (R)	4th Class Day
June 11 (F)	Class Day (Only Friday Class Day)
June 24 (R)	Last Day to Withdraw With a Grade of "W"
June 26 (S)	TASP Test Administered
July 5 (W)	Fourth of July Holiday
July 8 (R)	Final Exams
July 8 (R)	Semester Ends
July 12 (M)	Grades Due in Registrar's Office by 10 a.m.

Second Summer Session (Based on 4 day class week, except for first week)

July 14 (W)	Registration (All Campuses)
July 15 (R)	Classes Begin
July 16 (F)	Class Day (Only Friday Class Day)
July 20 (T)	4th Class Day
July 24 (S)	TASP Test Administered
August 5 (R)	Last Day to Withdraw With a Grade of "W"
August 17 (T)	Final Exams
August 17 (T)	Semester Ends
August 19 (R)	Grades Due in Registrar's Office by 10 a.m.

Fall Semester, 1993

August 23 (M)	Faculty Reports
August 23-26 (M-R)	Registration Period (Varies by Campus)
August 27 (F)	Faculty Professional Development
August 30 (M)	Classes Begin
September 3 (F)	Friday Only Classes Begin
September 4 (S)	Saturday Only Classes Begin
September 6 (M)	Labor Day Holiday
September 13 (M)	12th Class Day
September 18 (S)	TASP Test Administered
November 13 (S)	TASP Test Administered
November 19 (F)	Last Day to Withdraw With a Grade of "W"
November 25 (R)	Thanksgiving Holidays Begin
November 29 (M)	Classes Resume
December 10 (F)	Final Exams for Friday Only Classes
December 11 (S)	Final Exams for Saturday Only Classes
December 13-16 (M-R)	Final Exams for M-R Classes
December 16 (R)	Semester Ends
December 20 (M)	Grades Due in Registrar's Office by 10 a.m.
December 24 (F)	College Buildings and Offices Closed for the Holidays

Spring Semester, 1994

January 3 (M)	College Buildings and Offices Reopen
January 10 (M)	Faculty Reports
January 10-13 (M-R)	Registration Period (Varies by Campus)
January 14 (F)	Faculty Professional Development
January 17 (M)	Martin Luther King, Jr. Day Holiday
January 18 (T)	Classes Begin (M-R) Classes
January 21 (F)	Friday Only Classes Begin
January 22 (S)	Saturday Only Classes Begin
January 31 (M)	12th Class Day
February 24 (R)	District Conference Day
February 25 (F)	Faculty Professional Development
February 25 (F)	Friday Only Classes Meet
February 26 (S)	Saturday Only Classes Meet
February 26 (S)	TASP Test Administered
March 14 (M)	Spring Break Begins
March 18 (F)	Spring Holiday for All Employees
March 21 (M)	Classes Resume
April 1 (F)	Holidays Begin
April 4 (M)	Classes Resume
April 15 (F)	Last Day To Withdraw With a Grade of "W"
April 23 (S)	TASP Test Administered
May 6 (F)	Final Exams—Friday Only Classes
May 7 (S)	Final Exams—Saturday Only Classes
May 9-12 (M-R)	Final Exams for M-R Classes
May 12 (R)	Semester Ends
May 12 (R)	Graduation
May 16 (M)	Grades Due in Registrar's Office by 10 a.m.

Summer Sessions, 1994

First Summer Session: (Based on 4 day class week, except for first week)

May 30 (M)	Memorial Day Holiday
June 1-2 (W-R)	Registration (Varies by Campus)
June 6 (M)	Classes Begin
June 9 (R)	4th Class Day
June 10 (F)	Class Day (Only Friday Class Day)
June 18 (S)	TASP Test Administered
June 28 (T)	Last Day to Withdraw With a Grade of "W"
July 4 (W)	Fourth of July Holiday
July 7 (R)	Final Exams
July 7 (R)	Semester Ends
July 11 (M)	Grades Due in Registrar's Office by 10 a.m.

Second Summer Session (Based on 4 day class week, except for first week)

July 13 (W)	Registration (All Campuses)
July 14 (R)	Classes Begin
July 15 (F)	Class Day (Only Friday Class Day)
July 19 (T)	4th Class Day
July 23 (S)	TASP Test Administered
August 8 (M)	Last Day to Withdraw With a Grade of "W"
August 16 (T)	Final Exams
August 16 (T)	Semester Ends
August 18 (R)	Grades Due in Registrar's Office by 10 a.m.

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Director of Technical Services.....	Paul Dumont
Vice President of the R. Jan LeCroy Center for Educational Telecommunications.....	Pamela K. Quinn

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 50,000 credit and 40,000 non-credit students per long 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 and Mountain View Colleges 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.

In 1989, the Bill J. Priest Institute for Economic Development opened south of downtown Dallas. Named for the DCCCD's founding chancellor, the BJPIED serves the community through the Business and Professional Institute, Edmund J. Kahn Job Training Center, Small Business Development Center, Center for Government Contracting, Business Incubation Center and International Trade Resource Center.

Mission of the Dallas County Community College District

The mission of the DCCCD is to equip students for successful living and responsible citizenship in a rapidly-changing local, national and world community. We do this by providing accessible, accredited, affordable, cost-effective, quality educational opportunities for development of intellectual skills, job skills, personal growth and/or transfer to a baccalaureate program. In fulfilling our purpose, we further cultural, economic and workforce development in the communities we serve.

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 Dallas County Community Colleges and the Bill J. Priest Institute for Economic Development are teaching, learning, community-building institutions. To fulfill the public trust the DCCCD:

- offers a student guarantee to the institutions and employers receiving its graduates;
- measures its collective and individual behaviors against a code of ethics and a statement of organizational values;
- makes decisions through a line organizational structure which receives input from those most affected by the decisions;
- strives to provide its services with revenues of
 - no more than 20% from student tuition
 - no more than 30% from local taxes; and
 - a minimum of 50% from the State
- seeks to maintain the highest possible credit ratings;
- views itself as a team player in the local community of educators, business people, elected officials and other community leaders; and
- sees its role as a weaver of a seamless fabric of educational opportunity for the people of Dallas County.

As a major employer, the DCCCD:

- follows open search procedures which solicit the best available candidates for positions and which will provide a balanced workforce which reflects the ethnic composition of the adult workforce in Dallas County;
- involves those most directly affected by hiring decisions in the candidate review process; and
- seeks to assure that competent performers do not lose real compensation through inflation.

In its organizational culture, the DCCCD:

- places ultimate value on student success;

- applies the principles of continuous quality improvement to achieve student success; and
- uses technology not only to teach distant learners, but also to educate, train and retool both its students and its employees.

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 continuing education 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

The 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 a higher administrative authority are considered on the merits of the case.

Family Educational Rights And Privacy Act Of 1974

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



awards received.

A student may request that all or any part of the directory information be withheld from the public by giving written notice to the Registrar's Office during the first 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 Educational 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 an "F."

II. IMPORTANT TERMS AND ABBREVIATIONS

Academic advisor: A member of the college staff who helps students set educational goals and select courses to meet those goals.

Add: During any single semester, to enroll in additional course(s) after 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 course without receiving academic credit.

Catalog: The book containing course descriptions, certificate and associate degree requirements and general information.

Class schedule: A booklet which is published

prior to each semester listing classes, sections, dates, times, instructors' names and meeting places. This booklet is used by students in preparing personal class schedules each semester.

Common Course Numbers: Some course descriptions also indicate a Common Course Number. Beginning in the Fall of 1994, the Common Course Number will become the official number of the course. This same Common Course Number is being used for this same course by a number of colleges throughout Texas to help students identify how a course will transfer. However, the lack of a Common Course Number does not necessarily mean a course will not transfer.

Common Learning: "General Education" as defined by the DCCCD. 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; (e) Enrollment in both credit and Continuing Education courses 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 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 per week. Check this catalog or the current class schedule for the value of any course you wish to take.

Credit/non-credit: Credit classes are those which award academic credit and may apply toward a degree. Non-credit classes do not apply toward a degree and are usually offered through Continuing Education.

DCCCD: Dallas County Community College District comprised of Brookhaven, Cedar Valley, Eastfield, El Centro, Mountain View, North Lake and Richland Colleges, plus the Bill J. Priest Institute for Economic Development.

Developmental studies courses: Courses which develop prerequisite skills in reading, writing and mathematics. Because of the nature of these courses, the credit earned will not count toward graduation requirements and may not be transferred to colleges outside the DCCCD.

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

Dual credit: Credit earned for both high school and college via concurrently enrolled high school students.

Electives: Courses which do not count toward a 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 class schedule for further information.

Former student: One who has attended a DCCCD college in the past but not during the previous long semester.

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

GPA: Grade Point Average. Two different ways of computing a G.P.A. are utilized. 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 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 schedules 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 5 1/2 weeks.

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

Student services fee: A fee for activities and services to students, which are considered separate and apart from the regularly scheduled academic functions of the college. Such activities and services include, but are not necessarily limited to, the following: health and medical services; recreational activities; automobile parking privileges; intramural and intercollegiate athletics; artists and lecture series; cultural entertainment series; student publications; and/or student government.

TASP: Texas Academic Skills Program; see special section in this catalog about this testing program.

Technical/occupational courses: Courses which lead to a certificate or Associate of Applied Science 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 transferability if you plan to attend a four-year institution.

Tech-Prep: Tech-Prep is an educational process which prepares students for emerging, technologically-advanced careers.

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 the 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 ending enrollment in classes. 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 claiming Texas residence and requesting resident tuition classification. 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 non-resident for tuition/fee purposes. Contact the Admissions Office for specific information detailing required documentation.

Beginning Freshmen

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

- a. Graduates from an accredited high school;
- b. Graduates of an unaccredited high school who are 18 years of age or older;
- c. Those who have earned a General Education Diploma (G. E. D.);
- d. Those who are at least 18 years of age and who do not have a diploma or G.E.D. may be admitted by individual approval;
- e. Those who are under the age of 18 and who do not have a diploma or G.E.D. may be admitted upon the written recommendation of the principal or superintendent of the last high school attended;
- f. High school seniors recommended by their high school principal. The College admits a limited number of students in this category. The student may enroll for no more than TWO college courses per semester;
- g. It is recommended, although not required, that students have adequate immunization for diphtheria, rubeola, rubella, mumps, tetanus and poliomyelitis.

Transfer Students

Transfer applicants are considered for admission on the basis of their previous college records. 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 and provisional admission. Students on probation may also be subject to special approval procedures. Contact the Admissions Office for further information.

Students transferring from a Texas public college or university are subject to the same TASP requirements as are "native" DCCCD students. (See special TASP section). Therefore, transfer students from Texas public colleges and universities who began their college careers in the 1989 Fall Semester and who have accumulated at least 9 hours of college-level credit must have TASP scores on file

with the DCCCD college. Otherwise, enrollment will be limited to remedial and/or other courses which will not count toward graduation.

Students transferring from a non-Texas public college or university who began their college career in the 1989 Fall Semester or later will have to take the TASP test either before or during their semester of enrollment in their 9th credit hour of college-level coursework in the DCCCD. Students transferring with more than 9 hours at a private or out-of-state institution will have to take TASP during their initial semester of enrollment in the DCCCD.

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 or whose record is blocked for any

other reason at any District college will not be allowed to register.

Non-Credit Students

Students enrolling for non-credit courses apply through the Office of 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:

1. complete a personal interview with the international student counselor and receive approval from the college;
2. students who have English as their primary language and whose country of origin is one in which English is the primary language of instruction and the language spoken at home by the majority population may be eligible for a waiver (e.g., England, Australia, the English-speaking provinces of Canada, Ireland and Jamaica) *Students who have earned a bachelors, masters or postgraduate degree from an accredited U. S. college or university are exempt from TOEFL;



3. be proficient in English and provide a letter in their own handwriting indicating educational and vocational plans;
4. show evidence of sufficient financial support for the academic year;
5. 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;
6. fulfill all admission requirements for international students at least 30 days prior to registration;
7. enroll as a full-time student (minimum of 12 credit hours);
8. supply official transcripts for all previous academic work with a minimum "C" average.

After admission, students must enroll as a full-time student (minimum of 12 credit hours) in order to maintain their status.

In addition to the requirements stated above, international students wishing to transfer from another U.S. higher education institution must also:

1. present documentation indicating "bona fide" non-immigrant status as an F-1 or M-1 student;
2. have pursued a full course of study at the institution last authorized to attend by I.N.S.;
3. present official transcripts verifying that the student:
 - a. was "in-status" for the term immediately preceding this transfer; and
 - b. has a minimum G.P.A. of 2.00 in all college work attempted.

International students are subject to the requirements of the Texas Academic Skills Program (TASP).

Contact the Admissions Office for information.

Application and Admissions 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, as all District colleges conduct early registration in some form.

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) a beginning student is required to furnish a transcript of the student's high school record; (2) a college transfer student is required to furnish official transcripts of all college work attempted. The College accrediting agency requires transcripts, and the College uses them in program advisement. **IT IS ABSOLUTELY ESSENTIAL THAT TRANSFER STUDENTS SUBMIT OFFICIAL TRANSCRIPTS FROM PREVIOUS COLLEGES ATTENDED.** If transcripts are not submitted, future enrollment of the student will be blocked and a transcript of work attempted at any DCCCD institution will not be released.

An official transcript must bear the institution's embossed seal and signature of the Registrar. Although

transcripts sent electronically over the Electronic Transcript Network will be considered official, a photocopy or facsimile (FAX) is not an official transcript.

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

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.

Reciprocal Tuition Agreement

The following Associate of Applied Science Degrees offered by the Dallas County Community College District may be taken by Tarrant County residents at in-county tuition rates:

PROGRAM	CAMPUS
Apparel Design	ECC
Automotive Technology	BHC
Dealership-sponsored Technician	
Service Technician	
Aviation Technology	MVC
Air Cargo	
Air Traffic Control	
Aircraft Dispatcher	
Airline Marketing	
Career Pilot	
Fixed Base Operations	
Avionics	MVC
Commercial Music	CVC
Construction Management	NLC
Educational Personnel	RLC
Electrical Technology	NLC
Engineering Technology	RLC
Film/Video Technology	NLC
Food & Hospitality Service	ECC
Interior Design	ECC
Invasive Cardiovascular Technology	ECC
Machine Shop	MVC
Mortgage Banking	NLC
Pattern Design	ECC
Physical Fitness Technology	NLC
Plumbing and Pipefitting	NLC
Social Work Associate	EFC
Substance Abuse Counseling	EFC
Veterinary Technology	CVC
Visual Communications	BHC
Vocational Nursing	ECC

Continues following Tuition & Fees Schedule

TUITION AND STUDENT SUPPORT FEES Fall and Spring Sessions

NOTE: A STUDENT REGISTRATION FEE OF \$5.00 WILL BE INCLUDED IN THE TUITION FOR EACH CREDIT STUDENT EACH SEMESTER. THIS FEE IS NON-REFUNDABLE.

Semester Credit Hours	DALLAS COUNTY				OUT-OF-DISTRICT				OUT-OF-STATE OR COUNTRY			
	Tuition	Student Serv. Fee	Regis. Fee	Total	Tuition	Student Serv. Fee	Regis. Fee	Total	Tuition	Student Serv. Fee	Regis. Fee	Total
1	\$ 48	\$10	\$5	\$ 63	\$105	\$10	\$5	\$120	\$ 200	\$10	\$5	\$ 215
2	48	10	5	63	105	10	5	120	200	10	5	215
3	48	10	5	63	105	10	5	120	200	10	5	215
4	64	10	5	79	140	10	5	155	260	10	5	275
5	80	10	5	95	175	10	5	190	325	10	5	340
6	96	10	5	111	210	10	5	225	390	10	5	405
7	112	10	5	127	245	10	5	260	455	10	5	470
8	128	10	5	143	280	10	5	295	520	10	5	535
9	144	10	5	159	315	10	5	330	585	10	5	600
10	160	10	5	175	350	10	5	365	650	10	5	665
11	174	10	5	189	364	10	5	379	715	10	5	730
12	188	10	5	203	378	10	5	393	780	10	5	795
13	202	10	5	217	392	10	5	407	845	10	5	860
14	216	10	5	231	406	10	5	421	910	10	5	925
15	230	10	5	245	420	10	5	435	975	10	5	990
16	244	10	5	259	434	10	5	449	1,040	10	5	1,055
17	258	10	5	273	448	10	5	463	1,105	10	5	1,120
18	272	10	5	287	462	10	5	477	1,170	10	5	1,185
19	286	10	5	301	476	10	5	491	1,235	10	5	1,250
20	300	10	5	315	490	10	5	505	1,300	10	5	1,315

TUITION AND STUDENT SUPPORT FEES Summer Sessions

Semester Credit Hours	DALLAS COUNTY				OUT-OF-DISTRICT				OUT-OF-STATE OR COUNTRY			
	Tuition	Student Serv. Fee	Regis. Fee	Total	Tuition	Student Serv. Fee	Regis. Fee	Total	Tuition	Student Serv. Fee	Regis. Fee	Total
1	\$ 54	\$10	\$5	\$ 69	\$150	\$10	\$5	\$165	\$225	\$10	\$5	\$240
2	54	10	5	69	150	10	5	165	225	10	5	240
3	54	10	5	69	150	10	5	165	225	10	5	240
4	72	10	5	87	192	10	5	207	284	10	5	299
5	90	10	5	105	240	10	5	255	355	10	5	370
6	108	10	5	123	288	10	5	303	426	10	5	441
7	120	10	5	135	300	10	5	315	497	10	5	512
8	132	10	5	147	312	10	5	327	568	10	5	583
9	144	10	5	159	324	10	5	339	639	10	5	654

The following definitions are brief guidelines only; please discuss any questions regarding proper tuition classification with admissions office personnel.

TUITION REQUIREMENTS FOR LONG TERM:

- Dallas County Residents** \$16.00 per credit unit through ten credit units and \$14.00 for each additional credit unit over ten credit units; minimum of \$48.00
- Out-of-District Residents** \$35.00 per credit unit through ten credit units and \$14.00 for each additional credit unit over ten credit units; minimum of \$105.00
- Out-of-State Residents** \$65.00 per credit unit; minimum of \$200.00
- Out-of-Country Residents** \$65.00 per credit unit; minimum of \$200.00

SUMMER SESSION

- Dallas County Residents** \$18.00 per credit unit through six credit units and \$12.00 for each additional credit unit over six credit units; minimum of \$54.00
- Out-of-District Residents** \$48.00 per credit unit through six credit units and \$12.00 for each additional credit unit over six credit units; minimum of \$150.00
- Out-of-State Residents** \$71.00 per credit unit; minimum of \$225.00
- Out-of-Country Residents** \$71.00 per credit unit; minimum of \$225.00

The charge for auditing a course is the same as taking the course for credit.

Effective Date: Fall Semester, 1993

Provided he has established legal residence in the State of Texas, a student's county of residence is the county in which his legal guardian resides, if he is under 18 years of age. Students 18 years of age and older are deemed to be residents of the county in which they reside.

An "Out-of-State Resident" is defined to be a student of less than 18 years of age, living away from his family and whose family resides in another state or whose family has not resided in Texas for twelve months immediately preceding the date of registration; or a student 18 years of age or older who has not been a resident of the state twelve months subsequent to his 18th birthday or for the twelve months immediately preceding the date of registration.

The description of resident and non-resident status contained above are generally applicable, but the determination of residence status for tuition purposes is specifically governed by the provisions of V.T.C.A. Education Code, Section 54.052, the rules and regulations of the Coordinating Board, Texas College and University System, and judicial and/or administrative interpretations thereof. In the event of conflict between the above-noted descriptions and the latter authorities, the latter shall govern.

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.

By law (TEC: section 4, subchapter B, chapter 54; sec. 54.0521, 1985), the STATE OF TEXAS requires that the OATH OF RESIDENCY be signed.

The law states that if the institution later determines that the individual was not entitled to be classified as a resident at the time of the individual's registration, the individual shall pay to the institution the amount the individual should have paid as a non-resident. **If the individual fails to make a timely payment as required, the individual is not entitled to receive a transcript or to receive credit for courses taken during the time the individual was falsely registered as a resident student.**

THE OATH OF RESIDENCY IS NOT ACCEPTABLE IN LIEU OF DOCUMENTARY EVIDENCE.

If you are a non-resident or an out-of-county student AND if you (or the parent on whom you are dependent) own property subject to ad valorem tax by the College District, you may qualify for a waiver of tuition to the In-District rate. Please check with the college Admissions Office for additional details.

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

Registration Fee (Non-refundable: There will be a \$5 non-refundable Registration Fee assessed each semester.

Schedule Change Fee: A schedule change fee will be charged for any form of "drop" from a class. The fee is \$10 per transaction during early registration and \$15 per transaction beginning on the first day of regular registration. No fee will be applied after the appropriate official reporting date of the regular semester or summer session. A schedule change fee will not be assessed on "add only" transactions.

Laboratory Fee: \$4 to \$12 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: \$4 a semester.

Dance Activity Fee: \$8 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.

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:

Fall and Spring Semesters

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

Summer Semesters

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

Summer Session

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

* The first "class day" is to be counted as the officially published date when the semester begins. The first "class day" means the first day ALL classes begin for the semester, not the first day a student's class is scheduled to meet. No refunds are issued after the last class day of each semester.

Separate refund schedules may be established for optional fees such as intercollegiate athletics, cultural entertainment, parking, 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 or her 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. Cash refunds are not issued. Refund checks are mailed to the student at the address on file in the Admissions/Registrar's Office.

(5) Mandatory fees shall include, but not be limited to, registration fee, 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 and the class schedule 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. Students may be dropped from courses due to returned checks.

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 and advisement program for entering students which is a required part of the enrollment process.

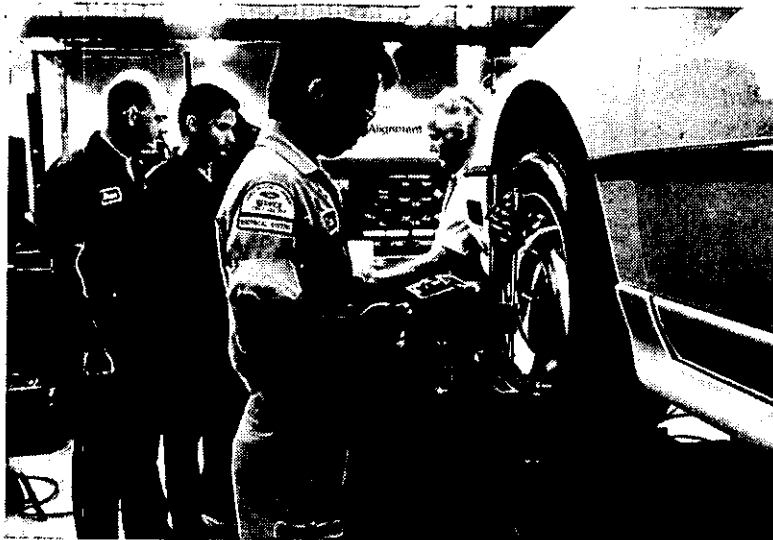
The assessment program includes the completion of a questionnaire which documents information on career and work plans, previous academic achievement and other relevant information. Assessment also includes an examination of individual skill levels in reading, writing and mathematics. Information on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

Because of the importance of such information, students should have official copies of ACT, SAT or TASP 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 have these available at the time of enrollment.

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. However, the College reserves the right to insist students enroll in the appropriate remediation should assessment results indicate a need for the improvement of skills in reading, writing and/or mathematics.

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



Students who did not have at least 3 college-level credit hours prior to the 1989 Fall Semester must take the TASP (Texas Academic Skills Program) test either prior to, or during, their semester of enrollment in their 9th college-level credit hour. Such students must report TASP scores prior to their next semester of enrollment. Should students fail either the reading, writing or mathematics section of TASP, they will be required, as mandated by Texas state law, to enroll immediately (even

if mid-semester) and participate in the appropriate remediation continuously until the failed section is passed.

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 current 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 nor credit for a course. An instructor may give an examination if he or she 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, except that a student service fee may not be charged.

Acceptance of Credit In Transfer

Undergraduate credits in transfer will be accepted from colleges and universities recognized by a national accrediting agency equivalent to the Commission on Colleges of the Southern Association of Colleges and Schools.

Credits earned through other education programs, such as credit-by-examination, military experience, the U.S. Armed Forces Institute, are reviewed by the Registrar and credit is granted, if applicable.

Official transcripts from all higher education institutions and a request for a degree plan evaluation must be on file before the evaluation can be accomplished in the Registrar's Office. Any questions concerning the validity of the document(s) will result in the need to have an official transcript(s) sent directly from the other institution(s) to the Registrar's Office. Transfer students admitted with a grade point deficiency cannot graduate until the deficiency is cleared by earning additional grade points.

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, a student identification number will be assigned.

TASP (Texas Academic Skills Program) Test

The Texas Academic Skills Program (TASP) is required by state law to insure that students enrolled in Texas public colleges possess the academic skills needed to perform effectively in college-level coursework. TASP includes a testing component designed to identify and provide diagnostic information about the reading, mathematics and writing skills of students.

Students who entered the DCCCD Fall, 1989, or thereafter, must take the TASP test prior to accumulating, or during the semester of enrollment in, 9 hours of college credit, and must report TASP scores prior to their next DCCCD enrollment. Students transferring with more than 9 hours at a private or out-of-state institution will have to take TASP during their initial semester enrollment in the DCCCD. Students who have had at least 3 hours of college-level credit prior to Fall, 1989 are exempted from the TASP requirement. Students enrolled in certain DCCCD Certificate programs may be exempt from the TASP requirement.

TASP scores may be utilized in place of the DCCCD Assessment Program, except in math. Students scoring below the state-determined level must continuously participate in appropriate remediation until such time as the TASP Test is passed. A student who wishes to withdraw from a mandated remediation course must drop all college-level courses. The successful completion of TASP may be a prerequisite to enrollment in some courses. In addition, course placement also may be based on the results of the DCCCD assessment.

DCCCD students must pass all sections of TASP prior to being awarded the Associate of Arts and Sciences Degree, or the Associate of Applied Science Degree. Students planning to transfer must pass all TASP sections before enrolling in upper division (junior or senior level) courses.

For more complete information on TASP, contact the Counseling Center; to obtain a copy of the TASP

Registration Bulletin, contact the Testing/Appraisal Center. Students must preregister to take TASP. All test fees are borne by the student although financial aid may be available to offset the cost for students deemed eligible.

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
<u>35</u>		
12 = 2.93		

The student's transcript and grade reports will indicate two different G.P.A.'s. G.P.A.(1) is based upon all DCCCD courses in which the student received a performance grade of A-F. G.P.A.(1) is utilized to determine Suspension/Probation status, athletic participation eligibility, and financial aid eligibility. G.P.A.(2) is based upon grade points earned in all DCCCD courses with the exception of those courses numbered 099 and below, Art 199, College



Learning Skills 100, Developmental Communications 120, Human Development 100 and 110, Library Skills 101, Music 199, and Theatre 199 in which a student received a performance grade of A-F. G.P.A. (2) is utilized to determine eligibility for graduation, honor rolls, and eligibility in Who's Who in American Junior Colleges. It is also the G.P.A. which may be considered by four-year institutions when a student transfers.

For repeated courses, only the latest grade earned is included in cumulative grade point averages, even if the latest grade is lower than a preceding grade. However, transcripts do indicate all work attempted and completed in the District. 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 (A-F) 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 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, based on G.P.A.(1), 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, based on G.P.A.(2), or better. Grade points and hours earned in courses numbered 99 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Library Skills 101, Music 199, and Theatre 199 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 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 credits 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 Fall or Spring semester.

Full-time:

A student carrying 12 or more credit hours in a Fall or Spring 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 policies 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 and in each semester's class schedule.) 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. A drop/withdrawal request by mail must be received in the Registrar's Office by the semester deadline. 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 and the current class schedule. See "Refund Policy" for possible eligibility for a refund.

STUDENTS WHO WITHDRAW FROM A MANDATED REMEDIATION COURSE AS A RESULT OF TASP PERFORMANCE MUST ALSO WITHDRAW FROM ALL COLLEGE-LEVEL COURSES.

Academic Recognition

Full-time students who complete at least 12 hours of college-level credit and earn a grade point average of 3.5-3.79 are listed on the Vice President's Honor Roll. Full-time students who complete at least 12 hours of college-level credit and average 3.8-4.0 are placed on the President's Honor Roll. Part-time students who take 6-11 college-level credit hours and maintain a 3.5 or higher grade point average are placed on the Academic Recognition List. G.P.A.(2) is utilized to determine honor roll inclusion.

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, utilizing G.P.A.(1). Students may be removed from probation when they earn a 2.0 cumulative grade point average, utilizing G.P.A.(1). 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 from DCCCD or other colleges may not register for the immediately-following semester or summer sessions without special permission from the Vice President of Student Development or designee. All suspended students are required to 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 mailed to the address on record of enrollment to each student at the end of each semester.

The grade report contains a listing of all credit courses attempted within the DCCCD, as well as information on academic standing. Interim grade reports are issued for other-than-semester length classes.

DCCCD Transcript of Credit

The DCCCD transcript of credit is a chronological listing of college credit courses attempted within the seven college system of the DCCCD. The transcript is official if the document is embossed with the college seal and imprinted with the signature of the Registrar. It includes both GPA(1) and GPA(2).

Upon written request of the student, the Registrar's Office will send an official transcript to the individual student or to any college or agency named. There is a minimum of two working days required for processing. A transcript will be released only if all obligations to the DCCCD have been settled.

The Electronic Transcript Network permits member colleges to send transcripts to one another through a computer network. Member colleges prefer to receive transcripts in this fashion rather than through the generation of an "official transcript."

Transfer credits from other institutions are not recorded on DCCCD transcripts. If a student desires a transcript of work completed at another institution, the student should secure it from that institution.

Degree Requirements

The College confers the Associate of Arts and Sciences Degree and the Associate of Applied Science Degree upon students who have completed all requirements for graduation. Each degree candidate must earn the last 25% of the hours for a degree (15 hours for a 60-hour degree, 18 hours for a 72-hour degree, etc.) as a resident student in the DCCCD, or accrue 45 hours in residence in the DCCCD. The last 25% of the credit hours required for graduation in any degree or certificate may not be earned through credit-by examination except as approved by the college Vice President of Instruction.

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.

Students entering the DCCCD Fall 1989, or thereafter, must successfully complete all sections of the TASP (Texas Academic Skills Program) Test before a degree can be awarded. See the TASP catalog section for additional information.

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, and may include the following goals:

- I. **Living with Yourself:** Each DCCCD college will provide direction and opportunities for students to become more competent in developing themselves as individuals.
- II. **Living with Others:** Each DCCCD college will provide opportunities for students to become more proficient in establishing and maintaining satisfying relationships with others.
- III. **Living with Environments:** Each DCCCD college will provide opportunities for students to understand the relationship between individuals and their environment and make responsible decisions about the use of natural, human, technological, and spatial resources.
- IV. **Living as a Producer:** Each DCCCD college will provide opportunities for students to become more competent as producers.
- V. **Living as a Consumer:** Each DCCCD college will provide opportunities for students to become more competent as consumers.
- VI. **Living in the Community:** Each DCCCD college will provide opportunities for students to become more competent in using their skills and initiative to serve their local, national, and world communities and to improve their quality of life.
- VII. **Living Creatively:** Each DCCCD college will provide opportunities for students to become more proficient in the assessment, development, and application of their creative abilities.
- VIII. **Living in the Future:** Each DCCCD college will provide opportunities for students to become more proficient in anticipating and accommodating change and to become more competent in examining possible alternatives for the future.
- IX. **Living as a Learner:** Each DCCCD college will provide students opportunities to develop learning skills (reading, writing, speech communication, and computation) through assessment, advisement, and instruction.

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 of Arts and Sciences must take 34-36 hours in approved Common Learning courses beyond the Core. Candidates for the Associate of Applied Science must choose six to eight hours of course work from two of the following clusters: Laboratory Science, Behavioral/Social Science, Business, and Humanities.

Associate of Arts and Sciences Degree

This degree is primarily designed as the first two years of a four-year degree. Students desiring to transfer should seek this degree after consultation with the college counseling/advising center.

Students must have a minimum of 61 credit hours, a grade of "C" or better in each of the three Core courses (English 101, Speech Communication 101, and math course numbered 100 or above), a grade point average of at least "C" (2.0), based on G.P.A.(2), and a passing score on all sections of TASP (if students who are not TASP exempt) to receive the Associate of Arts and Sciences Degree. These 61 hours may be earned at any district college and must include:

- English 101 (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- Speech Communication 101 (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- A math course numbered 100 or above (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- English 102 (3 credit hours).
- A sophomore literature course (3 credit hours) to be chosen from English 201, 202, 203, 204, 205, 206, 215, OR 216 (English 209 and English 210 do not meet the sophomore literature requirements.)
- Laboratory Science (8 credit hours) to be chosen from Astronomy, Biology, Chemistry, Geology, Physical Science, OR Physics. (For Astronomy to meet this requirement, the student must successfully complete Astronomy 101 in combination with 103, and Astronomy 102 in combination with 104 OR successfully complete Astronomy 111-112.)
- Humanities (3 credit hours) to be chosen from: Art 104, a foreign language, Humanities 101, English 201,

202, 203, 204, 205, 206, 215 or 216, Music 104, Philosophy 101 OR Theatre 101.

- Physical Education activity course (1 credit hour)
(NOTE: Neither chronological age nor military service are acceptable excuses for waiving the physical education requirement.)

- Behavioral Science (3 credit hours) to be chosen from Anthropology, Human Development, Psychology, OR Sociology

- History 101 AND 102 (6 credit hours)
(NOTE: Only three credit hours of History may be earned through credit-by-examination.)

- Government 201 AND 202 (6 credit hours)

(NOTE: Only three credit hours of Government may be earned through credit-by-examination.)

- Business (3 credit hours) to be chosen from Business, Accounting, Management 136, • Computer Information Systems, OR Economics. Cooperative Work Experience courses may not be used to meet Common Learning requirements

- Electives (16 - 18 credit hours)

A maximum of four physical education activity hours may be counted as credit toward requirements for graduation. The G.P.A. for graduation is based on the credit earned for all DCCCD work and all credit which is transferred from other institutions. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Developmental Communications 120, Human Development 100, Human Development 110, Music 199 and Theatre 199.

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 of College/University Transfer Degree

A student may earn an Associate of College/University Transfer through an individually-negotiated degree plan that incorporates those elements of the DCCCD Associate of Arts and Sciences Degree that fall within the student's

transfer plan developed under the Student Transfer Guarantee program. Students must have a minimum of 61 credit hours, a grade of "C" or better in English 101 and in a 100 or higher math course, a grade point average of at least "C" (2.0), based on G.P.A. (2), and a passing score on all sections of TASP (if students are not TASP exempt) to receive this degree. These 61 hours may be earned at any District college and must include:

- History 101 and 102 (6 credit hours)

(NOTE: Only three credit hours of history may be earned through credit-by-examination)

- Government 201 and 202 (6 credit hours)

(NOTE: Only three credit hours of government may be earned through credit-by-examination)

- English 101 (3 credit hours with a grade of "C" or better)

- A math course numbered 100 or above (3 credit hours with a grade of "C" or better if math is included in the degree plan).

The remaining hours will be comprised of courses equivalent to those designated by the student's selected transfer institution as being applicable to the baccalaureate degree being

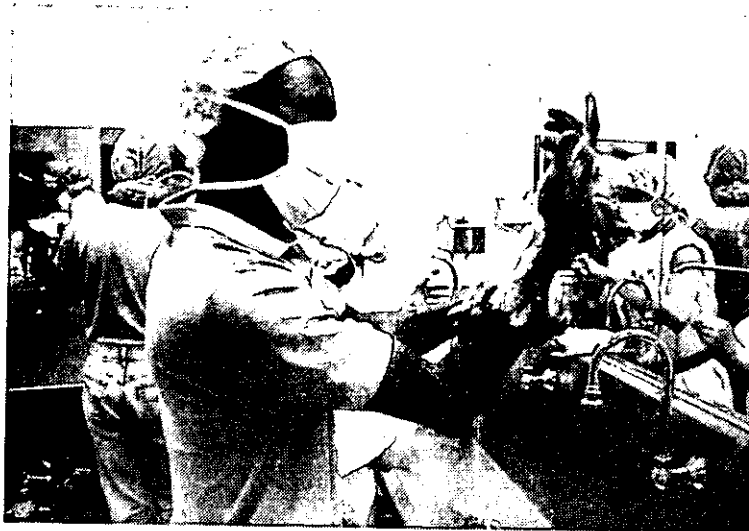
sought. In no case will DCCCD course prerequisites be waived. Students who qualify for an Associate of Arts and Sciences will be granted that degree rather than the Associate of College/University Transfer.

Students wishing to pursue this degree should seek the assistance of the Counseling Center early in their college career to insure their eligibility and to insure a degree plan is appropriately filed with the college Office of Admissions and Registrar.

Associate of Applied Science Degree

This degree is designed to teach specific career/technical skills. The requirements for each major in the Associate of Applied Science Degree are clearly shown in the curriculum patterns elsewhere in this catalog. Students seeking such a degree should become familiar with the specific required courses in the appropriate curriculum pattern.

Students must have a minimum of 60 credit hours, a grade of "C" or better in each of the three Core courses (English 101 OR Communications 131, Speech Communication 101, AND a math course numbered 100 or above), a grade point average of at least "C" (2.0), based on G.P.A.(2), and a passing score on all sections of TASP (if students are not TASP exempt) to receive the Associate of



Applied Science Degree. These 60 hours must include 18 hours of the following general education requirements:

- English 101 OR Communications 131 (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- Speech Communication 101 (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- A math course numbered 100 or above (3 credit hours) [A CORE COURSE REQUIREMENT; A GRADE OF "C" OR BETTER MUST BE EARNED]
- Three credit hours from a Social/Behavioral Science course: Anthropology, Government, History, Human Development, Psychology, OR Sociology
- Three credit hours from a Humanities/Fine Arts course: Art 104, a foreign language, Humanities 101, Music 104, Philosophy 101, Theatre 101, English 201, English 202, English 203, English 204, English 205, English 206, English 215, OR English 216
- Three credit hours of an elective course chosen from a discipline outside the student's area of specialization.

Elsewhere in this catalog can be found specific degree plans for each technical/occupational program. The DCCCD is currently in the process of reviewing these plans to ensure they include the above-mentioned courses. Until all plans are in compliance, students must take those courses listed in the detailed degree plan and the Associate of Applied Science degree will be granted.

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. The G.P.A. for an Associate of Applied Science Degree is based only on the hours used to meet degree requirements. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Development Communications 120, Human Development 100, Human Development 110, Music 199, and Theatre 199.

Tech-Prep

Tech-Prep programs provide high quality, rigorous technical preparation based on a common core of academic courses that meet Texas recommended proficiencies in English, mathematics, science and social studies. Tech-Prep students are provided with options leading to advanced training in four technical clusters: business/computer sciences, engineering technology, health and human

services. DCCCD offers an associate degree and certificates as well as college transfer opportunities based on agreements among area secondary programs as well as 4-year colleges and universities which benefit Tech-Prep students. After successfully completing the required high school courses outlined in a Tech-Prep program, Tech-Prep students may receive college credit toward graduation in certain college programs. Tech-Prep students should check with the College Dean of Career and Continuing Education for specific information.

Guarantee For Job Competency

The DCCCD makes certain guarantees to its students who earn its Associate of Applied Science degree. If an Associate of Applied Science graduate is judged by his/her employer to be lacking in technical job skills identified as exit competencies for his/her specific degree program, the graduate will be provided up to nine tuition-free hours of additional skill training by a District college under the conditions of the guarantee policy.

Special conditions which apply to the guarantee are as follows:

1. The graduate must have earned the Associate of Applied Science Degree beginning May, 1992 or thereafter in an occupational program identified in the college catalog.
2. The graduate must have completed this degree at the District (with a majority of the credits being earned at the District) and must have completed the degree within a four-year time span.
3. Graduates must be employed full-time in an area directly related to the area of program concentration as certified by the Vice President of Instruction.
4. Employment must commence within 12 months of graduation.
5. The employer must certify in writing that the employee is lacking entry-level skills identified by the DCCCD as the employee's program competencies and must specify the areas of deficiency within 90 days of the graduate's initial employment.
6. The employer, graduate, division dean, job placement counselor and appropriate faculty member will develop a written educational plan for retraining.
7. Retraining will be limited to nine credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.
8. All retraining must be completed within a calendar year from the time the educational plan is agreed upon.
9. The graduate and/or employer is responsible for the cost of books, insurance, uniforms, fees and other course-related expenses.
10. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.
11. Students sole remedy against District and its employees for skill deficiencies shall be limited to nine credit hours of tuition-free education under conditions described above.
12. The program can be initiated through written contact with the office of the college president.

Certificate 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, based on G.P.A.(2), is required. The G.P.A. for a certificate is based only on the hours used to meet certificate requirements. The following courses will not count toward graduation nor the G.P.A. for graduation: Courses numbered 099 and below, Art 199, College Learning Skills 100, Development Communications 120, Human Development 100, Human Development 110, Music 199, and Theatre 199. Students working toward a certificate may be waived from the TASP requirement; the student may enroll only in courses leading toward the certificate in order to maintain their TASP Waived status.

Procedure For Filling 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 prior to commencement.

In addition to other graduation requirements, students are expected to complete within five (5) years the course and hour degree requirements as outlined in the catalog in effect at the time of their entrance to a DCCCD college. Students may have the option to select a more recent catalog year in which they were enrolled, provided the degree requirements are met within five (5) years of the catalog selected and the requisite courses are still offered.

The college reserves the right to modify curricula or to make changes as appropriate.

The student has the ultimate responsibility to select and register for courses meeting graduation requirements.

Waiving Of Scholastic Deficiency

Any student in an academic transfer program may transfer to Applied Science degree or Certificate 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 that 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 FOR STUDENTS WISHING TO TRANSFER

Academic Transfer Programs

The Dallas County Community College District offers a broad range of educational opportunities for the student whose goal is to transfer to a four-year institution. In addition to offering a strong, creative foundation for the freshman and sophomore years, the academic transfer curriculum is coordinated with a number of Texas four-year institutions to insure the transfer of credits. Although each four-year school is different, students may guarantee transferability of their courses by being active and responsible in the advisement process. By consulting the four-year institution regularly and taking advantage of the resources available at each of the DCCCD colleges, students may insure that the transfer process is a positive experience.

The Texas Education Code Section 61.078 enacted by the 71st Texas Legislature (SB 457) provides a means to aid students in resolving disputes regarding the transfer of course credits. To qualify as a dispute the course(s) in question must be listed in the Community College General Academic Course Guide Manual and be offered at the receiving institution. The sending institution, or the student working through the senior institution, must initiate the dispute. From the date a student is notified of the denial of credit, the law allows a maximum of 45 calendar days for the resolution of the dispute by the sending and receiving institutions.

In order to challenge the denial of credit, a "Transfer Dispute Resolution" form, available through the District Office of Student and International Programs (telephone 214-746-2410) must be completed within 15 days after the student has been notified of the denial of credit. This form is sent to the receiving institution.

The receiving institution must then inform the student, the sending institution and the State Commissioner of Higher Education of the resolution. If need be, the Commissioner, or designate, may be called upon to resolve the dispute.

Earning An Associate Degree Prior To Transferring

During the time of attendance in the DCCCD, students may elect to earn a two year associate degree. The Associate of Arts and Sciences Degree is designed specifically for those students who plan to transfer to a Texas four-year institution. The Associate of Arts and Sciences Degree requires students to complete many of the core courses that will also be required by most senior institutions. The flexibility of this degree program also allows students to complete many of the introductory courses specifically related to their major field of study. Additional information regarding this degree can be found elsewhere in this catalog or from a counselor or advisor.

The Associate of College/University Transfer is an individually negotiated degree designed to permit students to take only those courses which will apply toward a specific major at a specific university. Additional information about this degree can be found elsewhere in this catalog.

There are many advantages to completing the Associate of Arts and Sciences Degree or the Associate of College/University Transfer Degree programs prior to transferring to a four-year institution. In addition to completing many of the requirements for a four-year degree program, students are able to attend college close to home, enjoy small class sizes, pay lower costs for tuition and fees, and take advantage of many personalized and creative programs. In addition, students who complete this degree may become more marketable in the work place should plans to complete the bachelor's degree become delayed or unobtainable. However, it is not required that a student complete any degree prior to transferring.

Choosing A Major And Developing An Educational Plan

Some students will enter college with a clear idea of what major they will choose and to which senior institution they will transfer. However, the fact is that many students do not know where they will transfer or what their major may be.

There are several freshman level core courses that will apply toward most majors. Students are encouraged to use the first semester to investigate their own interests. By the second or third semester, students should begin to develop a clear sense of which senior institution they will enter and the requirements for their chosen degree program. Working closely with a counselor or advisor, and utilizing current information from four-year institutions, students who plan to transfer are encouraged to follow the Associate in Arts and Sciences Degree plan as many of the required courses are often required at four-year institutions.

The Counseling personnel at each of the DCCCD campuses can provide assistance in developing a degree plan for almost any major. Listed below are some of the four-year majors students can begin in the DCCCD:

- Accounting
- Advertising
- Agriculture
- American Studies
- Anthropology
- Architecture
- Art
- Biological Science
- Botany
- Business Administration
- Chemistry
- City/Regional Planning
- Computer Science
- Dance
- *Dentistry
- Dietetics
- Drama
- Economics
- Engineering
- English
- Entomology
- Finance
- Fine Arts
- Foreign Languages





Forestry
 Geography
 Geology
 Health Sciences
 History
 Home Economics
 Industrial Arts
 Interior Design
 Journalism
 *Law
 Liberal Arts
 Life Sciences
 Management
 Marine Biology
 Marketing
 Mathematics
 Medical Technology
 *Medicine
 Meteorology
 Microbiology
 Music
 Music Education
 Nursing
 Occupational Therapy
 Oceanography
 Optometry
 Pharmacy
 Philosophy
 Photojournalism
 Physical Education
 Physical Science
 Physical Therapy
 Physics
 Political Science
 Psychology
 Public Relations
 Radio/TV/Film
 Recreation
 Social Work
 Sociology
 Speech Communication
 Speech Pathology
 Substance Abuse Counseling
 Teacher Preparation
 Telecommunications

Theatre

*Veterinary Medicine

Wildlife Management

Zoology

* These fields require study beyond the bachelor's degree.

College Resources For Transfer Students

Each of the DCCCD colleges offers many resources designed specifically for those students planning to transfer to a four-year institution. Students are encouraged to take advantage of these resources early in their collegiate experience, particularly if they are undecided upon a major or have not selected a senior institution. Many of the resources can assist students in making informed decisions when selecting courses, choosing a transfer institution, and completing all of the necessary steps in the transfer process.

The Counseling Center

Students are invited to utilize the valuable resources found in the Counseling Center, and are encouraged to seek the advice of a counselor/advisor when planning each semester of study.

The Counseling Center has several resources to assist students, including a large collection of senior institution catalogs and bulletins, senior college admission application forms, and other specialized brochures and information. Students can also take advantage of several computer resources, such as DISCOVER, GIS, and SIGI. These simple computer programs are designed to help students clarify goals, identify career and occupational interests, and research information about senior institutions.

In addition, there are many activities planned especially for transfer students. These activities include College Days where officials from senior institutions visit on-campus to talk directly with students, special transfer workshops and seminars, and events designed to assist students in making career decisions.

A number of other materials are available to aid students who plan to transfer. These materials are outlined below:

Course Selection Guides

Course Selection Guides offer a listing, in DCCCD course numbers, of courses necessary for a number of majors at many institutions throughout Texas. Course Selection Guides may be available for the following majors:

Accounting
 Aerospace Engineering
 Agriculture
 Architecture
 Art
 Biology
 Business Administration
 Chemical Engineering
 Chemistry
 Civil Engineering
 Computer Science
 Criminal Justice
 Economics

Electrical Engineering
 English
 Fashion Merchandising
 Finance
 Foreign Languages
 Geography
 Geology
 History
 Industrial Engineering
 Interior Design
 Journalism
 Kinesiology (Exercise and Sports Science)
 Management
 Marketing
 Mathematics
 Music
 Music Education
 Nursing
 Pharmacy
 Physical Education
 Physical Therapy
 Physics
 Political Science
 Pre-Law
 Pre-Veterinary Medicine
 Psychology
 Radio/Television/Film
 Social Work
 Sociology
 Speech Pathology/Audiology
 Teacher Preparation
 Undecided

Although the information on these guides has been reviewed by officials at the various senior institutions, the content is subject to change, and it is the responsibility of the student to verify with the institutions of their choice the applicability of this information. Counselors and academic advisors can also assist students with preparation for majors other than those listed above.

Equivalency Guides

Equivalency Guides offer a listing of how every course offered in the DCCCD transfers to a given senior institution. This information is helpful for those students who have selected a senior institution, but have yet to determine a major. Students should note that the transfer equivalencies shown on these guides offer information on how, or if, courses are generally accepted by the senior institution, and do not indicate how these courses will apply toward a particular major or degree program. A counselor/advisor can assist students in determining the applicability of courses to a particular major.

Common Course Numbering System

To help meet the transfer needs of its students, the Dallas County Community College District has joined the Texas Common Course Numbering System Consortium. At the time of this printing, almost all Texas community/junior colleges had moved, or will be moving, to this system. Most universities are cooperating with this new numbering system indicating courses equivalent to the common course

system.

Institutions teach courses similar in nature and these courses have been designated by a common number. The common number is to facilitate the transfer of these courses between and among the participating institutions. Elsewhere in this catalog can be found course descriptions for every course offered in the DCCCD. If a course has been assigned a common course number, it can be found in parenthesis. For example, the common course number for our English 101 course will be shown as "(ENGL 1301)," and our Math 101 as "(MATH 1314)." Students should not assume that only courses with common course numbers will transfer.

Choosing A Catalog Year

Students who plan to transfer to a four-year school have a choice to make regarding their requirements for graduation. They may choose the catalog year under which they wish to graduate. This choice is subject to restrictions that are outlined in the four-year school's catalog. Students should consult the catalog of their choice to learn about any such limitations.

Transferring students should keep a copy of the DCCCD catalog, the four-year institution's catalog, and the Course Selection Guide valid at the time of initial enrollment in the DCCCD and at the time when a major was selected. DCCCD course syllabi should also be kept.

Other Things To Consider

During the time of study in the DCCCD, students should begin to determine the necessary steps for completing the transfer admission process. The process may require a great amount of preparation, and students should be certain that they understand all of the requirements for admission, such as application deadlines, minimum grade point average requirements, limitation on the number of credit hours that are acceptable in transfer, policies regarding acceptance of repeated courses, housing information, and financial aid application procedures. Of equal importance is a personal visit to the chosen institution. Many senior institutions plan special activities and campus visitation periods where students can meet with representatives from all areas of the institution.

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.]

Guarantee For Transfer Credit

The DCCCD guarantees to its Associate of Arts and Sciences graduates and other students who have met the requirements of a 60-credit-hour transfer plan the transferability of course credits to those Texas colleges or universities which cooperate in the development of DCCCD Course Selection Guides. If such courses are rejected by the college or the university, the student may take tuition-free alternate courses at a District college which are acceptable to the college or university. In addition, students

may receive the Associate of College/University Transfer upon the completion of 61 credit hours which are included in the Student Transfer Guarantee.

Special Conditions which apply to the guarantee are as follows:

1. Transferability means the acceptance of credits toward a specific major and degree. Courses must be identified by the receiving university as transferable and applicable in Course Selection Guides dated 1991-92 or later;

2. Limitations of total number of credits accepted in transfer, grades required, relevant grade point average and duration of transferability apply as stated in the catalog of the receiving institution; and

3. The guarantee applies to courses included in a written transfer plan—which includes the institution to which the student will transfer, the baccalaureate major and degree sought, and the date such a decision was made—which must be filed with the appropriate DCCCD college.

This guarantee is designed specifically for those DCCCD students who have made firm decisions about their major and the institution to which they planned to transfer. The DCCCD is working with a number of Texas institutions, such as the University of North Texas, East Texas State University, the University of Texas at Arlington, the University of Texas at Dallas, Texas Woman's University, Texas Tech, Dallas Baptist University and others, in order to make such guarantees possible. In order to secure such a guarantee, students should begin the process in their college counseling center.

VI. OTHER EDUCATIONAL PROGRAMS

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 of Applied Science 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 courses 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 Registrar's Office has knowledge of courses available through this method. The examination may be an approved subject examination (not a general examination) of the College Level Examination Program (CLEP), Advanced Placement Exams (CEEB),

Defense Activity for Nontraditional Education Support (DANTES) or a teacher-made test, depending on the course. Students should insure DCCCD acceptance of specific national exams prior to taking them.

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 a DCCCD 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 25% of the 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 applicable to an Associate of Applied Science degree or certificate program. The following guidelines pertain to such evaluations:

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 Human Development 110 to facilitate the process.

High School Articulation/2+2 Agreements

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.



Distance Learning Courses

Telecourses

Students have the option of taking a variety of credit courses through the TELECOURSE program of learning. Telecourses require viewing a series of video programs, along with studying a textbook, completing specific assignments and taking course tests. In addition, students use a course Study Guide, which provides detailed directions for reading and viewing lessons. At a required orientation at the beginning of the course, students meet with the telecourse instructor who is available by telephone or in person throughout the semester. Course testing is done through the campus testing center. Telecourses are equivalent to the on-campus sections of the same courses in terms of objective, content, rigor and transferability.

Most telecourses are shown on open broadcast through KDTN-TV2 and on local cable system channels, as well as being available for viewing on campus. A few courses are offered as video cassettes for lease through the colleges' bookstores. Telecourses may be taken in conjunction with on-campus classes and students enroll for telecourses through the normal registration processes. Successful TELECOURSE students are goal oriented and self directed, know how to learn independently and have prerequisite skills such as a college reading level. Telecourse offerings are listed in the credit class schedules published by all DCCCD colleges each semester and subject matter includes:

Accounting	Anthropology
Business	Computer Information Systems
Economics	English
History	Humanities
Government	Management
Health	Psychology
	Sociology

For additional information, interested students should consult a DCCCD Telecourse Information brochure containing course descriptions, requirements, viewing schedules and other pertinent information. This brochure is available on all campuses each semester or by calling the TELECOURSE HOTLINE at 952-0300.

Teleclasses Via DC-NET

A growing number of courses are offered for the LeCroy Center for Educational Telecommunications on Dallas College Network. DC-NET is live television, but with a difference. It is interactive: students watch and listen to the instructor on television and talk with the instructor and with classmates at other sites by using special microphones.

DC-NET classes are available at DCCCD colleges, select business sites and in Dallas, Mesquite, Farmers Branch and Richardson on cable television. Students taking the courses via cable TV interact by using the telephone.

DC-NET provides students with several important benefits:

- ** access to courses which otherwise might not be available at individual colleges because of low enrollments. DC-NET allows students at multiple colleges, businesses and homes with cable TV to be combined so that the class has enough students to be offered.

- ** access to high-demand courses which are filled and not available at an individual college. A class on DC-NET can make additional enrollments available for those courses.

- ** access to courses at times which may be more convenient for students. Because DC-NET courses have small numbers of students at any one college receive site, and because they often have students at business sites and in homes, courses can be scheduled for the convenience of the few.

DC-NET courses are listed in the colleges' class schedules with special designations. Tests are administered at the testing centers of the colleges of the DCCCD. For more information, call 952-0340.

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:

- * complete an application for a student cooperative work experience program
- * have completed at least six semester hours in an occupational major or secure waiver or requirement from the instructor
- * declare a technical/occupational major or file a degree plan
- * 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

An important part of the DCCCD's commitment to enhancing student appreciation for and understanding of diverse cultures is its international studies programs. These are available in a variety of countries during both the regular semesters and in the summer. Semester-length programs are currently available in England, France, Mexico, Spain, Germany, and Ireland. Students are usually sophomore level and have at least a 2.5 cumulative grade point. In most programs, no prior knowledge of a foreign language is required, allowing even novices to learn a language in its cultural context while taking other credit courses taught in English to complete their study of the native culture.

Also offered by many of the campuses are study-abroad opportunities during the summer sessions. Such courses are taught by DCCCD faculty and normally last two to three weeks. In previous years these courses have been offered in Austria, Australia, China, France, Great Britain, USSR, Mexico, Jamaica, Spain, and Italy. For information about any of the semester-length or summer programs, contact the District Office of Student and International Programs at 214-746-2410.

Human Development Courses

The Human Development curriculum is composed of several different credit courses designed to help students master skills that are necessary for successful everyday living. The courses emphasize different life skills, including educational and career/life planning, interpersonal communication, relationship building, personal and social growth, conflict resolution, leadership, decision making, and success in college. Some campuses offer special sections of Human Development courses which focus on various issues, such as multicultural understanding, gender differences, career change, and life transitions. Some sections are designed for special populations, such as women returning to school, adults making career or job changes, students in academic difficulty, young adults, or academically underprepared students.



Human Development courses transfer to many 4-year institutions as elective credit. These courses use an experimental model which allows for the use of a wide variety of teaching/learning strategies including small group work, journal writing, mini-lectures, selected readings, classroom discussion, team teaching, peer teaching, outside guest speakers, psychometric testing, and volunteer experiences in the community. The Human Development classes are intentionally small to allow students to actively participate in discussions and practice new skills. Most Human Development courses require that students possess college-level skills in reading and writing. Human Development 092, "Student Success," is designed for students who do not possess these skills. Students who enroll in HD 092 need to be currently enrolled in the appropriate developmental reading and/or developmental writing courses.

Developmental Studies

Students whose assessment test scores (DCCCD, SAT, ACT, or TASP) indicate they lack the skills necessary to be successful in college-level courses will be advised to enroll in developmental courses. Successful completion of these courses will provide prerequisite skills for college-level work and satisfy TASP remediation requirements. Other students who wish to review and improve basic skills may also elect to take one or more developmental courses.

Reading, writing and mathematics courses are offered in classroom settings with laboratory support. These developmental courses provide instruction directly related to the personal, academic and career goals of students.

Evening And Weekend College

In order to serve those people whose work schedule and/or personal involvements make it impossible for them to attend college during normal daytime hours, most courses offered during the day also are available in the Evening and Weekend College. 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 Student Obligations

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

The library is a place where students can find print and non-print materials to supplement classroom learning or where - if they choose - they can actually take a course (Library Science 102). The library helps students to learn in their own way and at their own speed. In addition to print materials and reference help, the library may provide slides, tapes, compact discs, computer software, 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.

Instructional media services supports the classroom instructional program and are 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

Within the Dallas County Community College District, Continuing Education is an educational development process which creates an instructional delivery system that is flexible, diverse, visionary, and responsive to the needs of its public, private, and corporate citizens. Continuing Education provides non-credit skills training, personal and professional courses, and programs for human, community, and economic development, and thus expands the available educational opportunities for all persons of all ages to participate in college programs.

Continuing Education instructors are professionals from the community chosen because they have proven experience in their field. Their objective is to share their knowledge, insight and expertise, to insure that students acquire a knowledge of the subject, and through a meaningful learning experience to become equipped to serve better their community, business, and themselves.

Courses are offered as seminars, workshops and institutes—the type of course is determined by the nature of the material, instructional approach, and the needs of the students. Usually there are no entrance requirements or examinations; however, some courses may have age restrictions and others may require a certain amount of experience in the subject field for enrollment. Admission is on a first-come, first-served basis. Registration is simple, quick and easy, and may even be accomplished by phone. Continuing Education classes are held on the campus of each college and in a variety of locations throughout the community. Classes and activities are conducted throughout the week, both during the day and evening hours, and also on Saturday and Sunday.

Because of the nature of Continuing Education course offerings, textbooks may not be required in some courses;

however, other courses will require the purchase of texts and/or special class materials. To enhance the educational experience of those students who enroll in Continuing Education classes, library privileges are afforded them during the term in which they are registered.

Scholarship funds are available for specific vocationally oriented courses. To apply for these scholarship funds please inquire at the Continuing Education Office.

Continuing Education Units (CEU's)

College credit may be awarded for some courses related to DCCCD vocational/technical/occupational programs. Continuing Education Units (CEU's) are transcribed upon successful completion of the course. In all recognized educational circles, one CEU is equal to "ten contact hours of participation in an organized Continuing Education or extension experience under responsible sponsorship, capable direction, and qualified instruction." The CEU is a means of recording and accounting for Continuing Education activities and meeting the certification requirements of certain professional organizations.

The Bill J. Priest Institute for Economic Development

Opened in May, 1989, the Bill J. Priest Institute for Economic Development comprises a \$9.2 million training complex located at 1402 Corinth, just south of downtown Dallas. The Institute houses programs serving the business community. The BJPIED Child Care Center, operated by Child Care Dallas, is located on site as a support service available for students of the Edmund J. Kahn Job Training Center and occupants of the Business Incubation Center.

The Institute's program areas include:

The Business & Professional Institute (BPI)—Offers non-credit customized contract training to business and industry;

The Edmund J. Kahn Job Training Center (JTC)—Provides short-term, intensive career training and basic skills instruction as well as evening and weekend continuing education courses; career training and instruction to unemployed and under-employed individuals;

The Small Business Development Center (SBDC)—Provides counseling, training, and resources to small businesses throughout Dallas County.

The International Business Center (IBC), Located in the World Trade Center, provides services to businesses interested in international trade;

The Center for Government Contracting (CGC)—Assists businesses seeking government contracts on municipal, county, state or federal levels;

Technology Transfer Center (TTC)—Offers counseling services and training seminars focusing on technology transfer, product development and commercialization, the inventions process and licensing; and

The Business Incubation Center (BIC)—Offers cost-shared facilities and services to small businesses which can provide a viable business plan. Time-shared services are also provided on a contract basis for businesses which do not need to locate their home offices on-site.

The North Texas-Dallas SBDC—One of four regional SBDC offices in Texas, is also located in the Priest Institute

for Economic Development. It administers SBDC activities in 49 counties and comprises 16 field centers, including the Dallas SBDC, IBC, CGC and TTC.

For more information about any of these programs, please consult the BJPIED section at the back of the comprehensive District Catalog or call (214) 565-5803.

VII. 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 a wide variety of programs and activities for the general campus population and the surrounding community, including lectures, art gallery activities, and performance events. Programs often are coordinated with the various instructional divisions to provide students with valuable educational experiences. Leadership conferences, retreats, and service learning programs offer students opportunities to develop skills that can enrich the quality of their own lives and the life of their community. Student Programs and Resources seeks to involve students meaningfully in campus life. Recent research in higher education indicates that for many students involvement is an important contributor to academic success.

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 appraisal of interest, personality and abilities. Career Counseling may be available to students enrolled in credit classes only.
2. Academic advisement to develop and clarify educational plans and make appropriate course choices.
3. Confidential counseling sessions to assist students in managing academic environment and dealing with issues which can hinder classroom participation.
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. Problem identification and referral sources to provide in-depth assistance for such matters as legal concerns, financial aid, tutoring, job placement, medical problems, or emotional problems.

Tutoring Services

For students needing special 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 state and national programs;
5. Testing for correspondence courses.

Individuals desiring to take tests in the Centers must provide picture identification and also may be asked to show their student identification card prior to receiving testing materials. Students must be referred by a counselor for psychometric testing. Exceptions must be arranged by faculty in writing.

The Student Code of Conduct provisions regarding disruptive behavior and/or academic dishonesty apply equally to Test Centers and classrooms. Irregularities will be referred to the proper authorities for disciplinary action.

Health Services

Health is the most fundamental human need, and a high standard of physical and mental health is desirable for 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 to appropriate health care services, tuberculin skin tests and other screening programs, and programs of interest to students and faculty. Students are encouraged to come to the Health Center for their various health needs and questions. No information on a student's health is released without written permission from the student, except as required by law.

Placement Services

The Dallas County Community College District provides job placement services free of charge to DCCCD students (credit and non-credit), alumni, former students, and those in the process of enrolling. Although services may vary among DCCCD colleges, most Placement Offices provide opportunities for students to learn job search skills including how to establish employment contacts, complete an application, write a resume and cover letter, and interview for a job.

All DCCCD colleges participate in a computer-assisted job bank which contains full and part-time opportunities in the Metroplex. Such opportunities are categorized by the career program areas offered by the DCCCD. All

Placement Offices strictly adhere to EEO and Affirmative Action Guidelines. Employers listing positions with the DCCCD Job Placement Service must be EEO employers. All services are free of charge.

Special Services

The Special Services Office offers a variety of support services to enable students with disabilities and/or special needs 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 assistants, readers/audio tapers, and loan of specialized equipment such as wheelchairs, audio tape recorders, talking calculators, closed captioning decoders, raised-line drawing kits and large print materials. Academic, career and personal counseling, special testing accommodations, registration assistance and extensive information and referral services are also available. Students with special needs are encouraged to contact the office at least one month prior to registration. They will be provided orientation and registration information. For additional information, please contact the Special Services Office or the Counseling Center of the campus you plan to attend.

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 athletics teams is voluntary on a non-scholarship basis for students who meet requirements established by the Metro Athletic Conference. Most teams are associated with the National Junior College Athletic Association. 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 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 nor maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing.

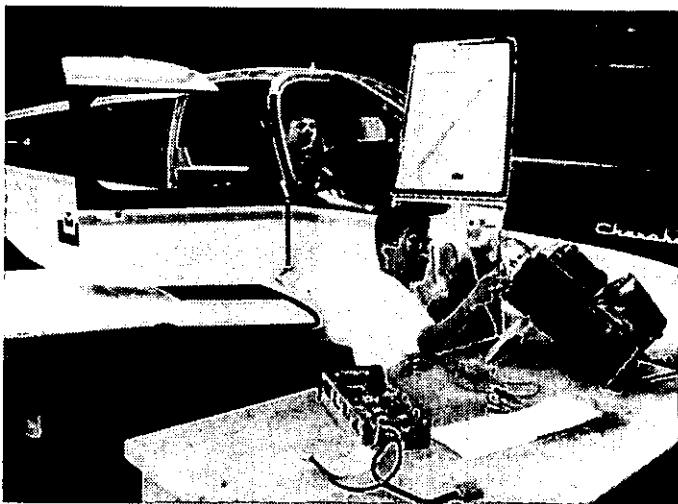
College Police Departments

Campus safety is provided within the framework of state law to "protect and police buildings and grounds of state institutions of higher learning." Because all laws of the state are applicable within the campus community, specially trained and educated personnel are commissioned to protect college property, personal property, and individuals on campus. Officers of the College Police Departments are licensed Peace Officers of the State of Texas. These officers are vested with full authority to enforce all Texas laws and rules, regulations, and policies of the College, including the Code of Student Conduct.

All colleges of the DCCCD comply with the provisions of the Campus Security Act of 1990, Public Law 101-542. Copies of the document for each campus are available upon request through the College Police Department.

Drug-Free Schools and Communities Act

In December, 1989, Congress passed the "Drug-Free Schools and Communities Act." In keeping with this act, the DCCCD, its colleges and facilities are committed to creating an educational and work environment free from use or distribution of illicit drugs and abuse of alcohol. Students are referred to the Code of Student Conduct in this catalog.



VIII. FINANCIAL AID

Reauthorization of the Higher Education Act of 1965 was signed into law by President Bush on July 23, 1992. The Higher Education Amendments of 1992 included several significant changes to the Federal Financial Aid Programs. Several of these changes altered the methodology for determining students' eligibility and the administration of the programs at the campus level. Due to printing deadlines, the District was unable to incorporate these changes into the Financial Aid section of the catalog. It is recommended that students check with the Financial Aid Office at the college of their preference for updated information regarding the programs and eligibility criteria.

Financial aid is available to help those students who, without such aid, would be unable to attend college. The primary resources for meeting the cost of education are the student, the parents and/or spouse. Financial aid, however, can remove the barriers for those families who cannot afford the cost of education beyond high school and can fill in the gap for families who can afford only part of the cost.

How to Apply

The Free Application For Federal Student Assistance (FAFSA) must be completed using data from the Federal Income Tax Return. This form is used to provide an analysis of the financial need. It may be obtained from a high school counselor or from any DCCCD Financial Aid Office. The FAFSA is to be mailed directly to the address indicated on the application. Six to eight weeks should be allowed for processing. The student should mail the FAFSA at least TWO MONTHS before the priority deadline for the semesters for which the student is applying. In addition to the FAFSA, all students must complete the DCCCD Financial Application and return it to the Financial Aid Office of the DCCCD college the student plans to attend.

The Department of Education will randomly select some applicants and require that information reported on the FAFSA be verified for accuracy. If the student's application is one that is selected, the student will be required to provide additional documents before financial assistance can be awarded. All eligible non-citizens may be required to submit a copy of an INS card as proof of immigration status before financial assistance can be awarded.

For students who attended other colleges (including our DCCCD colleges), universities, vocational or trade schools, a Financial Aid Transcript must be sent from each previous institution to the Financial Aid office of the school where the student is applying. This procedure is required even though the student may not have received financial assistance at the previous institution.

Students 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. All students receiving Federal Pell Grants must also sign an Anti-Drug Abuse statement certifying that they will not violate drug laws, "in conducting any activity with the grant."

Deadlines for Applying

Application for financial assistance received by the following dates will be given first priority:

Academic Year — May 1

Spring Only — October 1

Summer Sessions — April 1

APPLICATIONS RECEIVED AFTER THESE DATES
WILL BE PROCESSED AS TIME AND AVAILABILITY OF

FUNDS PERMIT. Late applicants need to be prepared to pay their own registration costs until their application can be completed. Applicants should contact the Financial Aid Office at the school to which they plan to attend for additional deadlines and requirements.

The student must reapply for financial assistance once each academic year (fall/spring). The award does not continue automatically beyond the period awarded.

Grants

Federal Pell Grant

The Federal 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 cost of attending college.

All students applying for financial assistance through the College must apply for a Federal Pell Grant. This is done through the FAFSA application discussed earlier. Other types of financial aid may be awarded if the student applies and qualifies. Eligibility for Federal 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 Federal 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, sign the certification statement, and bring all copies to the Financial Aid Office. The exact amount of the Federal Pell Grant award will depend upon the Estimated Family Contribution (EFC) on the SAR and the number of hours for which the student enrolls.

Federal Supplemental Educational Opportunity Grant (SEOG)

The Federal SEOG program provides assistance for eligible undergraduate students who show exceptional financial need and are making satisfactory academic progress toward their educational goal. 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 the Federal Pell Grant. Students must apply each year for the Federal SEOG Grant.

Texas Public Educational Grant (TPEG)

The TPEG Program was enacted by the 64th Texas legislature to assist needy students attending state supported colleges in Texas. 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 certain non-credit courses. Students must apply each year for the

TPEG grant.

Texas Public Educational State Student Incentive Grant (TPE-SSIG)

The TPE-SSIG Program is a state grant that is matched with federal funds to provide financial assistance to needy students attending state-supported colleges in Texas. No more than 10% of the funds may be awarded to non-resident students. To qualify, students must make satisfactory academic progress toward their educational goal and have financial need. The maximum grant for an academic year is \$5,000; 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 grant.

Scholarships

DCCCD Foundation Scholarships

The DCCCD Foundation provides a scholarship program for students who attend the colleges of the DCCCD. These funds are made available through the colleges to needy students who also meet additional criteria of the scholarship funds. Students holding student visas are not eligible. Application forms for these Foundation scholarships and information concerning other requirements and deadlines 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

Federal Stafford Loans (formerly 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 year and \$3,500 for the second year, with a maximum of \$23,000 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 variable with a maximum of 9%.. 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 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.

Federal Unsubsidized Stafford Loans

The Federal Unsubsidized Stafford Loan program was created by the Higher Education Amendments of 1992 and is available for all students regardless of income. The interest rate and loan limits are the same as the Federal Stafford Loan Program. Interest payments begin the day the loan is disbursed and the student is responsible for interest accrued during in-school and deferment periods. Repayment of principle begins 6 months after the student ceases to be enrolled at least half-time.

Federal Supplemental Loans to Students (FSLS)

Under the Federal Supplemental Loans to Students (FSLS) Program, independent undergraduate students may be eligible to borrow up to \$4,000 each year for the first two years of academic study. Legislation requires an undergraduate to complete a needs analysis to determine whether there is federal aid eligibility before a Federal SLS can be completed. The loan maximum is \$23,000 for all the years of undergraduate study. The interest rate is variable with a maximum of 11%. For students receiving FSLS only, lenders should be contacted regarding repayment. Most lenders will capitalize the interest if the payments are deferred.

Federal Parent Loan for Undergraduate Students (FPLUS)

Under the Federal Parent Loan for Undergraduate Students, parents may now borrow up to the cost of education, less other aid, per year for each dependent undergraduate student. The interest rate is variable with a cap of 10%. Repayment of principle and interest begins within 60 days after disbursement of the loan. The parents credit rating will be checked to determine eligibility and disbursement checks will be made co-payable to the parent and the institution.

Hinson-Hazelwood College Student Loan Program (HHCSLP)

The Hinson-Hazelwood Loan is a state-funded Federal Stafford Student Loan Program for students who are attending Texas colleges and are eligible to pay Texas resident tuition rates. All Hinson-Hazelwood Loan applicants must demonstrate financial need before a loan can be approved. The loan limit is \$2,625 for the first year and \$3,500 for the second year of undergraduate study and a maximum of \$23,000 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 the family's financial condition. A loan origination fee and an insurance premium on the life of the student will be taken from the total amount of each loan. No interest or payments are paid by the student while enrolled at least half-time or during the six-month grace period. The interest rate will be variable and will be disclosed by the Coordinating Board at time of disbursement. The minimum payment

will be \$50 per month over a 5- to 10-year period depending on the total amount borrowed. Participation in this loan program is on an individual campus basis.

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 to students. Loans are usually limited in amount and bear no interest. These loans must be repaid within 60 days of the date of the loan or the end of the term. A late fee of \$10 will be added for late payment. Because the funds are very limited, students should apply early if financial assistance is needed for registration costs.

Employment

Federal Work-Study Program (FWSP)

The Federal Work-Study Program provides part-time employment for students with financial need who are making satisfactory academic progress toward their educational goal. The wage rate is \$4.25 per hour and most students work 15 to 20 hours per week. Students will be paid on the last working day of the month. The amount students can earn in a school year is determined by the amount of their financial need and other aid awarded as part of their 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 Federal 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 Federal 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 Admissions Office for information concerning 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 challenged 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.

Bureau of Indian Affairs

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

Bureau of Indian Affairs
Federal Office Building
P.O. Box 368
Anadarko, OK 73005
(405) 247-6673

Veteran's Benefits Programs

The Veteran's Benefits Programs are coordinated by the Veterans' Services 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. 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 the Veterans' Administration guidelines and should consult them before taking developmental or television courses. 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 enrolled in three on-campus semester credit hours. VA payments for TV courses are limited to five semester credit hours per student.

3. A veteran student who has successfully completed credit hours at another college or university before applying for V.A. benefits must submit official academic transcripts to the Admissions Office. The transcript is evaluated and credit granted when applicable. The Admissions Office will evaluate all previous course work and prepare an educational plan.

4. A veteran student must enroll in courses required for a degree program. Information about degree requirements may be obtained from the Admissions 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' Services Office in order to be aware of current regulations and procedures.

Hazlewood Act

Under the Hazlewood Act, certain Texas 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 grants. Applications are available at the Financial Aid Office and will take a minimum of eight weeks to process. To apply, students must submit a Hazlewood Act application, a copy of their discharge papers and a Student Aid Report stating ineligibility to the Financial Aid Office.

Academic Progress Requirements

To comply with applicable laws and accreditation standards the Dallas County Community College District has developed a policy describing satisfactory progress for both applicants and recipients of student financial aid. A copy of this policy is available in the Financial Aid Office located on each campus.

CODE OF STUDENT CONDUCT

1. PURPOSE

The purpose of this document is to provide guidelines to the educational environment of the Dallas County Community College District. This environment views students in a holistic manner, encouraging and inviting them to learn and grow independently. Such an environment presupposes both rights and responsibilities. Free inquiry and expression are essential parts of this freedom to learn, to grow, and to develop. However, this environment also demands appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students must exercise these freedoms with responsibility.

2. POLICIES, RULES, AND REGULATION

a. Interpretation of Regulations

Disciplinary regulations at the college are set forth in writing in order to give students general notice of prohibited conduct. The regulations should be read broadly and are not designed to define misconduct in exhaustive terms.

b. Inherent Authority

The college reserves the right to take necessary and appropriate action to protect the safety and well-being of the campus community.

c. Student Participation

Students are asked to assume positions of responsibility in the college judicial system in order that they might contribute their skills and insights to the resolution of disciplinary cases. Final authority in disciplinary matters, however, is vested in the college administration and in the Board of Trustees.

d. Standards of Due Process

Students who allegedly violate provisions of this code are entitled to fair and equitable proceedings under this code.

The focus of inquiry in disciplinary proceedings shall be the guilt or innocence of those accused of violating disciplinary regulations. Formal rules of evidence shall not be applicable, nor shall deviations from prescribed procedures necessarily invalidate a decision or proceeding, unless significant prejudice to a student respondent or the college may result.

e. Prohibited Conduct

Students may be accountable to both civil authorities and to the college for acts which constitute violations of law and this code. Disciplinary action at the college will normally proceed during the pendency of criminal proceedings and will not be subject to challenge on the ground that criminal charges involving the same incident have been dismissed or reduced.

f. Definitions In this code:

- (1) "aggravated violation" means a violation which resulted or foreseeably could have resulted in significant damage to persons or property or which otherwise posed a substantial threat to the stability and continuance of normal college or college-sponsored activities.
- (2) "cheating" means intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
- (3) "college" or "institution" means the colleges of the Dallas County Community College District.

- (4) "college premises" means buildings or grounds owned, leased, operated, controlled, or supervised by the college.
- (5) "college-sponsored activity" means any activity on or off campus which is initiated, aided, authorized, or supervised by the college.
- (6) "collusion" means the unauthorized collaboration with another person in preparing work offered for credit.
- (7) "complaint" means a written summary of essential facts which constitute an alleged violation of published college regulation or policy.
- (8) "controlled substance" and "illegal drugs" are those as defined by the state-controlled substances act, as amended.
- (9) "distribution" means sale or exchange for personal profit.
- (10) "fabrication" means intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- (11) "group" means a number of persons who are associated with each other and who have not complied with college requirements for registration as an organization.
- (12) "hazing" is defined in Appendix B of this code.
- (13) "intentionally" means conduct that one desires to engage in or one's conscious objective.
- (14) "organization" means a number of persons who have complied with college requirements for registration.
- (15) "plagiarism" means intentionally representing the words or ideas of another as one's own in any academic exercise.
- (16) "published college regulation or policy" means standards of conduct or requirements located in the:
 - (a) College Catalog
 - (b) Board of Trustees Policies and Administrative Procedures Manual
 - (c) Student Handbook
 - (d) Any other official publication
- (17) "reckless" means conduct which one should reasonably be expected to know would create a substantial risk or harm to persons or property or which would otherwise be likely to result in interference with normal college or college-sponsored activities.
- (18) "sanctions" means any or all of the punitive actions described in Appendix A of this code.
- (19) "student" means a person who has paid fees and is taking or auditing courses through the Dallas County Community College District.
- (20) "violation" means an act or omission which is contrary to a published college regulation or policy.
- (21) "weapon" means any object or substance designed to inflict a wound, cause injury, or incapacitate, including, but not limited to, all firearms, knives, clubs, or similar weapons which are defined and prohibited by the state penal code, as amended.
- (22) "will" and "shall" are used in the imperative sense.

g. Prohibited Conduct

The following misconduct is subject to disciplinary action:

- (1) intentionally causing physical harm to any person on college premises or at college-sponsored activities, or intentionally or recklessly causing reasonable apprehen-

sion of such harm or hazing.

- (2) unauthorized use, possession, or storage of any weapon on college premises or at college-sponsored activities.
- (3) intentionally initiating or causing to be initiated any false report, warning or threat of fire, explosion or other emergency on college premises or at college-sponsored activities.
- (4) intentionally interfering with normal college or college-sponsored activities, including, but not limited to, studying, teaching, research, college administration, or fire, security, or emergency services.
- (5) knowingly violating the terms of any disciplinary sanction imposed in accordance with this chapter.
- (6) unauthorized distribution or possession for purposes of distribution of any controlled substance or illegal drug on college premises or at college-sponsored activities.
- (7) intentionally furnishing false information to the college.
- (8) sexual harassment.
- (9) forgery, unauthorized alteration, or unauthorized use of any college document or instrument of identification.
- (10) unauthorized use of computer hardware or software.
- (11) all forms of academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, plagiarism, and collusion.
- (12) intentionally and substantially interfering with the freedom of expression of others on college premises or at college-sponsored activities.
- (13) theft of property or of services on college premises or at college-sponsored activities; having possession of stolen property on college premises or at college-sponsored activities.
- (14) intentionally destroying or damaging college property or property of others on college premises or at college-sponsored activities.
- (15) failure to comply with the direction of college officials, including campus security/safety officers, acting in performance of their duties.
- (16) violation of published college regulations or policies. Such regulations or policies may include those relating to entry and use of college facilities, use of vehicles and media equipment, campus demonstrations, misuse of identification cards, and smoking.
- (17) use or possession of any controlled substance or illegal drug on college premises or at college-sponsored activities.
- (18) unauthorized presence on or use of college premises.
- (19) nonpayment or failure to pay any debt owed to the college with intent to defraud.

(Appropriate personnel at a college may be designated by college or District officials to notify students of dishonored checks, library fines, nonpayment of loans, and similar debts. Such personnel may temporarily "block" admission or readmission of a student until the matter is resolved. If the matter is not settled within a reasonable time, such personnel shall refer the matter to the VPSD for appropriate action under this code. Such referral does not prevent or suspend proceedings with other appropriate civil or criminal remedies by college personnel.)

- (20) use or possession of an alcoholic beverage on college

premises with the exception of specific beverage-related courses within the El Centro food service program.

Sanctions for violations of prohibited conduct for (1) through (6) may result in EXPULSION; for (7) through (13) may result in SUSPENSION; for (13) through (20) may result in sanctions other than expulsion or suspension.

Repeated or aggravated violations of any provision of this code may also result in expulsion or suspension or in the imposition of such lesser penalties as are appropriate.

3. DISCIPLINARY PROCEEDINGS

a. Administrative Disposition

(1) Investigation, Conference and Complaint

- (a) When the Vice President of Student Development (VPSD as referred to in this code) receives information that a student has allegedly violated a published college regulation or policy, the VPSD or a designee shall investigate the alleged violation. After completing the preliminary investigation, the VPSD may:

- (i) Dismiss the allegation 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 alleged violation for use in disciplinary hearings along with a list of witnesses and documentary evidence supporting the allegation.

The VPSD will notify the complainant of the disposition of the complaint. If the VPSD dismisses the allegation, the complainant may appeal to the President for review in writing within (5) working days after disposition.

- (b) The President or a designee may suspend a student immediately and without prior notice for an interim period pending disciplinary proceedings, when there is evidence that the continued presence of the student on college premises poses a substantial threat to himself or herself, to others, or to the stability and continuance of normal college functions. A student who is suspended on an interim basis shall be given an opportunity to appear before the President or a designee within five (5) working days from the effective date of the interim suspension. A hearing with the President shall be limited to the following issues only.

- (i) the reliability of the information concerning the student's conduct, including the matter of his or her identity; and
- (ii) whether the conduct and surrounding circumstances reasonably indicate that the student's continued presence on college premises poses a substantial threat to himself or herself, to others or to the stability and continuance of normal college functions.

After the hearing, the President or designee may modify the interim suspension as reasonable to protect the student, public, and college.

- (c) No person shall search a student's personal possessions for the purpose of enforcing this code unless the student's prior permission has been obtained or unless a law enforcement officer conducts the search as authorized by law.

(2) Summons

- (a) The VPSD shall summon a student regarding an alleged violation of this code by sending the student a letter. The letter shall be sent by certified mail, return receipt requested, addressed to the student at his or her last known address as it appears in the records of the Registrar's Office or shall be delivered personally to the student.

(b) The letter shall direct a student to appear at a specific time and place not less than five (5) working days after the date of the letter. The letter shall describe briefly the alleged violation and cite the published college regulation or policy which allegedly has been violated.

(c) The VPSD has authority to place a student on disciplinary probation if the student fails, without good cause, to comply with a letter of summons, or to apply sanctions against the student as provided in this code.

(3) Disposition

(a) At a conference with a student in connection with an alleged violation of this code, the VPSD shall provide the student with a copy of this code and discuss administrative disposition of the alleged violation.

(i) If a student accepts the administrative disposition, the student shall sign a statement that he or she understands the charges, his or her right to a hearing or to waive same, the penalty or penalties imposed, and that he or she waives the right to appeal. The student shall return the signed form by 5:00 p.m. of the day following administrative disposition.

(ii) If a student refuses administrative disposition of the alleged violation, the student is entitled to a hearing as provided herein. The VPSD shall note the date of refusal in writing and the student shall acknowledge in writing such date.

Administrative disposition means:

- the voluntary acceptance of the penalty or penalties provided in this code.
- other appropriate penalties administered by the VPSD.
- without recourse by the student to hearing procedures provided herein.

(b) The VPSD shall prepare an accurate, written summary of each administrative disposition and send a copy to the student (and, if the student is a minor, to the parent or guardian of the student), to the Director of Campus Security, to the complainant, and to other appropriate officials.

b. Student Discipline Committee

(1) Composition: Organization

(a) When a student refuses administrative disposition of a violation, the student is entitled to a hearing before the Student Discipline Committee. The hearing request must be made to the VPSD in writing, on or before the sixth (6th) working day after the date of refusal of administrative disposition. The committee shall be composed of equal numbers of students, administrators and faculty of the college. The committee and its chair shall be appointed by the President for each hearing on a rotating basis or on a basis of availability. The committee chair will be selected from the administration or faculty.

(b) 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 expected to attend all meetings and 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 VPSD shall represent the college before the

Student Discipline Committee and present evidence to support any allegations of violations.

(2) Notice

(a) The committee chairman shall notify the student of the date, time, and place for the hearing by sending the student a letter by certified mail, return receipt requested, addressed to the student at his or her address appearing in the Registrar's Office records. The letter shall specify a hearing date not less than five (5) nor more than (10) working days after date of the letter. If a student is under 18 years of age, a copy of the letter shall be sent to the parents or guardian of the student.

(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 notice shall advise the student of the following rights:

- (i) To a private hearing or a public hearing (as he or she chooses);
- (ii) To appear alone or with legal counsel if the alleged violation subjects the student to expulsion or suspension. The role of legal counsel is limited as provided in the code;
- (iii) To have a parent or legal guardian present at the hearing;
- (iv) To know the identity of each witness who will testify;
- (v) To cause the committee to summon witnesses, and to require the production of documentary and other evidence possessed by the College;
- (vi) To cross-examine each witness who testifies;

(d) A student who fails to appear after proper notice and without good cause will be deemed to have pleaded guilty to the violation pending against him. The committee shall impose appropriate penalty and notify the student in the same manner as the notice of hearing.

(e) Legal counsel who represents a student in a hearing where the alleged violation subjects the student to expulsion or suspension is limited to advising and assisting the student. This limitation means that legal counsel shall not cross-examine witnesses, make objections, testify, or perform other similar functions generally associated with legal representation. The same preceding limitation applies to counsel who represents the college. Student representation by legal counsel is not permitted in a hearing where the alleged violation does not subject the student to expulsion or suspension.

(3) Preliminary Matters

(a) Charges arising out of a single transaction or occurrence, against one or more students, may be heard together, or, upon request by one of the students-in-interest, separate hearings may be held.

(b) There will be disclosure of all evidence to both sides prior to the hearing.

(c) At least by 12:00 noon, five (5) full working days before the hearing date, the student concerned shall furnish the committee chairman with:

- (i) The name of each witness he or she wants summoned and a description of all documentary and other evidence possessed by the college which he or she wants produced.
- (ii) An objection that, if sustained by the chairman of the Student Disciplinary Committee, would prevent the hearing;
- (iii) The name of the legal counsel, if any, who will appear with the student;
- (iv) A request for a separate hearing, if any, and the grounds for such a request.

(4) Procedure

- (a) The hearing shall be conducted by the chairman who shall provide opportunities for witnesses to be heard. The college will be represented by legal counsel if the student is represented by legal counsel in a hearing where the student is subject to expulsion or suspension.
- (b) If a hearing may result in expulsion or suspension of a student, the college will have a court reporter present to transcribe the proceedings. If a hearing will not result in expulsion or suspension of a student, legal representation is not permitted and recording of the hearing by any means is not permitted unless authorized by law.
- (c) If the hearing is a private hearing, the committee shall proceed generally as follows:
 - (i) Persons present: the complainant, the VPSD and the student with a parent or guardian if desired.
 - (ii) Before the hearing begins, the VPSD or the student may request that witnesses remain outside the hearing room.
 - (iii) The VPSD shall read the complaint;
 - (iv) The VPSD shall inform the student of his or her rights, as stated in the notice of hearing;
 - (v) The VPSD shall present the college's case;
 - (vi) The student may present his or her defense;
 - (vii) The VPSD and the student may present rebuttal evidence and argument.
 - (viii) The committee, by majority vote, shall determine the guilt or innocence of the student regarding the alleged violation.
 - (ix) The committee shall state in writing each finding of a violation of a published college regulation or policy. Each committee member concurring in the finding shall sign the statement. The committee may include in the statement its reasons for the finding. The committee shall notify the student in the same manner as the notice of hearing.
 - (x) A determination of guilt shall be followed by a supplemental proceeding in which either party may submit evidence or make statements to the committee concerning the appropriate penalty to be imposed. The past disciplinary record of a student shall not be submitted to the committee prior to the supplemental proceeding. The committee shall determine a penalty by majority vote and shall inform the student, in writing, of its decision as in (ix) above.
- (d) If the hearing is a public hearing, the committee shall proceed generally as follows:
 - (i) Persons present: the complainant, the VPSD and the student with a parent or guardian if desired. Designated college representatives for the following groups may have space reserved if they choose to attend:
 - Faculty Association
 - College Newspaper
 - PresidentOther persons may attend based on the seating available. The Chairman may limit seating accommodations based on the size of the facilities.
 - (ii) Before the hearing begins, the VPSD or the student may request that witnesses remain outside the hearing room.
 - (iii) The VPSD shall read the complaint;
 - (iv) The VPSD shall inform the student of his or her rights, as stated in the notice of hearing;
 - (v) The VPSD shall present the college's case;
 - (vi) The student may present his or her defense;
 - (vii) The VPSD and the student may present rebuttal evidence and argument;
 - (viii) The committee, by majority vote, shall determine the guilt or innocence of the student regarding the alleged violation.
 - (ix) The committee shall state in writing each finding of a violation of a published college regulation or policy. Each committee member concurring in the finding shall sign the statement. The committee may include in the statement its reasons for the finding. The committee shall notify the student in the same manner as the notice of hearing.

- (x) A determination of guilt shall be followed by a supplemental proceeding in which either party may submit evidence or make statements to the committee concerning the appropriate penalty to be imposed. The past disciplinary record of a student shall not be submitted to the committee prior to the supplemental proceeding. The committee shall determine a penalty by majority vote and shall inform the student, in writing, of its decision as in (ix) above.

(5) Evidence

- (a) Legal rules of evidence shall not apply to hearings under this code. Evidence that is commonly accepted by reasonable persons in the conduct of their affairs is admissible. Irrelevant, immaterial, and unduly repetitious evidence may be excluded.
- (b) The committee shall recognize as privileged communications between a student and a member of the professional staff of the Health Center, Counseling or Guidance Center 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.
- (c) The committee shall presume a student innocent of the alleged violation until there is a preponderance of evidence, presented by the VPSD, that the student violated a published college regulation or policy.
- (d) All evidence shall be offered to the committee during the hearing.
- (e) A student defendant may choose not to testify against himself or herself. The committee will make a determination based on the evidence presented.

(6) Record

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 other materials considered by the committee; and the committee's decisions.

(7) Petition for Administrative Review

- (a) A student is entitled to appeal in writing to the President who may alter, modify, or rescind the finding of the committee and/or the penalty imposed by the committee. A student is ineligible to appeal if the penalty imposed is less than suspension or expulsion. The President shall automatically review every penalty of expulsion. Sanctions will not be imposed while appeal is pending.
- (b) A student is entitled to appeal in writing to the Board of Trustees through the President, the Chancellor, and the Chairman of the Board. An appeal from the Student Discipline Committee is by review of the record (not de novo).
- (c) A petition for review is informal but shall contain, in addition to the information required, the date of the Student Discipline Committee's action and the student's reasons for disagreeing with the committee's action. A student shall file his or her petition with the President on or before the third working day after the day the Discipline committee determines the penalty. If the President rejects the petition, and the student wishes to petition the Chancellor, he or she shall file the petition with the Chancellor on or before the third working day after the President rejects the petition in writing. If the Chancellor rejects the

petition, and the student appellant wishes to petition the Board of Trustees, he or she shall file the petition with the Chairman of the Board on or before the third working day after the day 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; however, none may increase the penalty. They may receive written briefs and hear oral argument during their review.
- (e) The President, Chancellor and Board of Trustees shall modify or set aside the finding of violation, penalty, or both, if the substance rights of a student were prejudiced because of the Student Discipline Committee's finding of facts, conclusions or decisions were:
 - (i) in violation of federal or state law or published college regulation or policy;
 - (ii) clearly erroneous in view of the reliable evidence and the preponderance of the evidence; or
 - (iii) capricious, or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

APPENDIX A - SANCTIONS

1. Authorized Disciplinary Penalties:

The VPSD or the Student Discipline Committee may impose one or more of the following penalties for violation of a Board policy, College regulation, or administrative rule:

- a. Admonition
- b. Warning probation
- c. Disciplinary probation
- d. Withholding of transcript of degree
- e. Bar against readmission
- f. Restitution
- g. Suspension of rights or privileges
- h. Suspension of eligibility for official athletic and nonathletic extracurricular activities
- i. Denial of degree
- j. Suspension from the college
- k. Expulsion from the college

2. Definitions:

The following definitions apply to the penalties provided above:

- a. An "Admonition" means a written reprimand from the VPSD to the student on whom it is imposed.
- b. "Warning probation" means 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.
- c. "Disciplinary probation" means 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 as illustrated by, but not limited to the following: being intoxicated, misuse of I.D. card, creating a disturbance in or on college premises and gambling.
- d. "Withholding of transcript of degree" may be imposed upon a student who fails to pay a debt owed the college or who has a disciplinary case pending final disposition or who violates the oath of residency. The penalty terminates on payment of the debt or the final disposition of the case or payment of proper tuition.

- e. "Bar against readmission" may be imposed on a student who has left the College on enforced withdrawal for disciplinary reasons.
- f. "Restitution" means reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.
- g. "Disciplinary suspension" may be either or both of the following:
 - (1) "Suspension of rights and privileges" is an elastic penalty which may impose limitations or restrictions to fit the particular case.
 - (2) "Suspension of eligibility for official athletic and nonathletic 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 nonathletic 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 as illustrated by, but not limited to the following: having intoxicating beverages in any college facility, with the exception of specific beverage related courses within the El Centro food service program; destroying 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.
- h. "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.
- i. "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 noncredit, for scholastic work at or through the college.
- j. "Expulsion" is permanent severance from the college. This policy shall apply uniformly to all 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.

APPENDIX B - HAZING

1. Personal Hazing Offense

- a. A person commits an offense if the person:
 - (1) engages in hazing;
 - (2) solicits, encourages, directs, aids, or attempts to aid another person in engaging in hazing;
 - (3) intentionally, knowingly, or recklessly permits hazing to occur; or
 - (4) has firsthand knowledge of the planning of a specific hazing incident involving a student in an educational institution, or firsthand knowledge that a specific hazing incident has occurred, and knowingly fails to report said knowledge in writing to the VPSD or other appropriate official of the institution.

- b. The offense for failing to report hazing incident is a misdemeanor punishable by a fine not to exceed \$1,000, confinement in county jail for not more than 180 days, or both such fine and confinement.
- c. Any other hazing offense which does not cause serious bodily injury to another is a misdemeanor punishable by a fine of not less than \$500 nor more than \$1,000, confinement in county jail for not less than 90 days nor more than 180 days, or both such fine and confinement.
- d. Any other hazing offense which causes serious bodily injury to another is a misdemeanor punishable by a fine of not less than \$1,000 nor more than \$5,000, confinement in county jail for not less than 180 days nor more than one year, or both such fine and confinement.
- e. Any other hazing offense which causes the death of another is a misdemeanor punishable by a fine of not less than \$5,000 nor more than \$10,000, confinement in county jail for not less than one year nor more than two years, or both fine and confinement.

2. Organization Hazing Offense

- a. An organization commits an offense if the organization condones or encourages hazing or if an officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing.
- b. The above offense is a misdemeanor punishable by a fine of not less than \$5,000 nor more than \$10,000. If a court finds that the offense caused personal injury, property damage, or other loss, the court may sentence the organization to pay a fine of not less than \$5,000 nor more than double that amount lost or expenses incurred because of such injury, damage, or loss.

3. Consent Not a Defense

It is not a defense to prosecution of a hazing offense that the person against whom the hazing was directed consented to or acquiesced in the hazing activity.

4. Immunity from Prosecution

Any person reporting a specific hazing incident involving a student in an educational institution to the VPSD or other appropriate official of the institution is immune from liability, civil or criminal, that might otherwise be incurred or imposed as a result of the report. A person reporting in bad faith or with malice is not protected.

5. Definition

"Hazing" means any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include students at an educational institution. The term includes but is not limited to:

- a. any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
- b. any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small place, calisthenics, or any other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- c. any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or any other substance which subjects the student to an unreasonable risk of harm or which adversely affects the mental or physical health or safety of the student.

- d. any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described in the subsection;
- e. any activity that induces, causes, or requires the student to perform a duty or task which involves a violation of the Penal Code.

Student Grievance Procedure

1. Definition

Student grievance is a college-related internal problem or condition which a student believes to be unfair, inequitable, discriminatory, or a hindrance to the educational process. A grievance also includes discrimination on the basis of race, color, religion, national origin, sex, handicap, or age.

2. Scope

This student grievance procedure is not intended to supplant the Student Code of Conduct, which allows the student procedural due process in disciplinary proceedings initiated by the college. This student grievance procedure is designed to provide the student with the opportunity to question conditions which the student believes impede his or her education or instruction. This student grievance procedure is not designed to include changes in policy nor does it apply to grading practices. Recommendations for initiating new policy or changing established policy are handled through normal administrative channels. Problems with grades will be dealt with first by the instructor, then by the division chair, and so forth to the President if necessary.

3. Procedures

Students who believe that they have a college-related grievance:

- a. Should discuss it with the college employee most directly responsible for the condition which brought about the alleged grievance.
- b. If discussion does not resolve the matter to the student's satisfaction, the student may appeal to the next level of authority. The student may consult with the Administrative Office to determine the next level of authority.
- c. If an appeal does not resolve the grievance, the student may proceed to the appropriate Vice President with a written presentation of the grievance.
- d. If the Vice Presidential level of appeal does not prove satisfactory to the student, the student may appeal the grievance to an appeal committee.

4. Exception To Procedures

Sexual Harassment:

All students shall report complaints of sexual harassment informally to location representatives selected by the highest level administrator at the location or formally to the District Associate Vice Chancellor of Educational Affairs as provided in the sexual harassment procedure in IV/A-04 of this Manual.

5. Appeal Committee

Procedures:

- a. A student who wishes a grievance to be heard must submit a request in writing to the VPSD.

- b. The VPSD will convene and chair the Appeal Committee.
- c. The appeal must be heard by the committee within ten (10) class days of the request unless extended with the agreement of both the student and the VPSD.
- d. The committee will be ad hoc and will consist of two (2) students, two (2) faculty members, and one (1) staff member who is either an administrator or a non-contractual employee. It is the responsibility of the President or the President's designee to appoint all committee members.
- e. The Appeal Committee will make its recommendation directly to the President. The decision of the President shall be final.

CAMPUS PARKING AND DRIVING REGULATIONS

1. General Provisions

- a. **Authority for Regulations:** The Board of Trustees, for the benefit of its colleges, is authorized by state law (Sec. 51.202, Education Code) to promulgate and enforce rules and regulations for the safety and welfare of students, employees, and property and other rules and regulations it may deem necessary to govern the institution, including rules for the operation and parking of vehicles on the college campuses and any other property under institutional control.
- b. **Authority of Campus Peace Officers:** Pursuant to the provisions of Sec. 51.2203, Education Code, campus peace officers are commissioned peace officers of the State of Texas, and as such have full authority to enforce all parking regulations, and other regulations and laws within areas under the control and jurisdiction of the District. In addition, campus peace officers may enforce all traffic laws on public streets and highways which are in proximity to areas under District control. Campus peace officers may issue citations to violators or take other action consistent with the law.

c. Permits:

Vehicle: In accordance with Sec. 51.207, Education Code, each college may issue and require use of a suitable vehicle identification decal as permits to park and drive on college property. Permits may be suspended for violations of applicable state law or parking and driving regulations. Each person who is required to have a vehicle identification decal shall apply to the Department of Campus Security for the decal. No fee is charged for the decal which must be placed on the rear window of the driver's side of a motor vehicle and on the gas tank of the motorcycle or motorbike.

Handicap: All authorized decals for handicap parking areas must be displayed prior to parking in such areas.

- d. **Posting of Signs:** Under the direction of the college president, the Department of Campus Safety shall post proper traffic and parking signs.
- e. **Applicability of Regulations:** The rules and regulations in this Chapter apply to motor vehicles, motorbikes and bicycles on college campuses or other District property, and are enforceable against students, employees of the District and visitors.

2. Prohibited Acts: The following acts shall constitute violations of these regulations:

- a. **Speeding:** The operation of a vehicle at a speed greater than is reasonable and prudent under existing conditions. The prima facie maximum reasonable and prudent speed on campus streets is twenty (20) miles per hour, and ten (10) miles per hour in parking areas, unless the street or area is otherwise posted.
- b. **Double parking, or otherwise parking, standing or stopping so**

as to impede the flow of traffic.

- c. **Driving the wrong way on a one-way street or lane.**
- d. **Driving on the wrong side of the roadway.**
- e. **Improper parking, so that any portion of a vehicle is outside the marked limits of a parking space.**
- f. **Parking in unauthorized areas, as illustrated by, but not limited to those areas posted as visitor parking, no parking, handicapped parking or loading zones, designated crosswalks, motorcycle areas, or other unauthorized areas as designated by sign.**
- g. **Parking trailers or boats on campus.**
- h. **Parking or driving in areas other than those designated for vehicular traffic, as illustrated by, but not limited to courtyards, sidewalks, lawns, or curb areas.**
- i. **Failure to display a parking permit.**
- j. **Collision with another vehicle, a person, sign or immovable object.**
- k. **Reckless driving.**
- l. **Failure to yield the right-of-way to pedestrians in designated crosswalks.**
- m. **Violation of any state law regulating vehicular traffic.**

3. Tow-away Areas: A vehicle may be towed if parked without authority in the following areas:

- a. Handicapped parking.
- b. Fire lanes.
- c. Courtyards.
- d. "No Parking" zones.
- e. Areas other than those designated for vehicular traffic.
- f. Other unauthorized areas as designated by sign.

4. Citations:

- a. **Types:** Citations shall be of two types:

- (1) **Campus Citations:** A campus citation is a notice that the alleged violator's parking, and driving privilege or permit has been suspended pending appeal or disposition.
- (2) **Court Citations:** A court citation is a notice of alleged violation of the type used by the Texas Highway Patrol, as authorized by Education Code, Sec. 51.206. Generally, such citations shall be used for violations by visitors, other persons holding no college permit, and employees of the District for excessive violations. However, such citations may be used for the enforcement of any provisions of these regulations.

b. Disposition

- (1) **Campus Citation:** A campus citation is returnable to the Department of Campus Safety, and a permit or driving privilege may be reinstated by the payment of a five dollar (\$5.00) service charge per citation at the college business office.
- (2) **Court Citation:** A court citation is returnable to the justice or municipal court in which the case is filed. Disposition of the citation may be made in the same manner as any other criminal case within the jurisdiction of such court.

- 5. **Suspension Review:** A person receiving a campus citation shall have the right to appeal the suspension of rights by submitting to the college safety committee, within ten (10) days after the date of violation, notice of appeal in writing, which shall state the reasons for such appeal.

6. **Safety Committee:** The safety committee shall consist of not less than three (3) persons appointed by the President, none of whom shall be a campus peace officer. The committee shall meet as needed, but not less than five (5) business days after receipt of notice of appeal. Notice of such meetings shall be given to an appellant not less than twenty-four (24) hours prior thereto.
7. **Penalties**
 - a. **Impoundment:** Failure to pay the service charge within ten (10) days after receipt thereof, or, if appealed, within ten (10) days after denial of appeal, shall result in impoundment of the vehicle, denial of readmission to any District college, and withholding of any transcript or degree. If a vehicle is impounded, the owner is liable for any wrecker charges and storage fees in addition to the service charge.
 - b. **Multiple Citations:** Receipt of four (4) citations during the period from August 15 of a year to August 14 of the year following will result in suspension of the parking and driving permit or driving privilege for the balance of such year.
 - c. **Court Citations:** Penalties for convictions in municipal or justice court are as prescribed by state law, not to exceed \$200 per conviction.
8. **Miscellaneous:** The District nor any of its colleges or employees are responsible for damage to or theft of a vehicle or its contents while on the college campus.

Communicable Disease Policy

The Board acknowledges the serious threat to our community and nation posed by the AIDS epidemic. This policy and other procedures developed by the Chancellor shall emphasize educating employees and students concerning AIDS and managing each case of AIDS individually with sensitivity, flexibility, and concern for the individual as well as employees and students. In addition, this policy defines and addresses other communicable diseases which from time to time arise in the colleges and District among students and employees.

The District's decisions concerning a person who has a communicable disease shall be based upon current and well-informed medical judgement which includes the nature of the disease, risk of transmission to others, symptoms and special circumstances of the person, and balancing identifiable risks and available alternatives to respond to a student or employee with a communicable disease.

Discrimination

Students: No student will be required to cease attending a college or participating in college functions solely on the basis of diagnosis of a communicable disease.

Employees: An employee who has a communicable disease will be treated in the same manner as other employees who have other illnesses or injuries.

Confidentiality

The District shall comply with applicable statutes and regulations which protect the privacy of persons who have a communicable disease.

Education

The Chancellor shall develop and maintain a comprehensive educational program regarding HIV infection for students and employees.

Each college shall have a Communicable Disease Coordinator. The coordinator shall be a registered nurse who has received training in communicable diseases, particularly HIV infection. A student or employee who has a communicable disease is strongly encouraged to report the disease to the coordinator.

Counseling

The Communicable Disease Coordinator shall refer students and employees to sources of testing for HIV infection and counseling upon voluntary request. An individual shall bear the expenses of such testing and counseling.

SEXUAL HARASSMENT POLICY

1. **Prohibited Acts:** No student or employee of the District shall engage in sexual harassment. For general policy and procedure purposes, sexual harassment may be described as unwelcome sexual advances, requests for sexual favors, or other physical and expressive behavior of a sexual nature where:

- a. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; or
- b. submission or rejection of such conduct by an individual is used as basis for academic or employment decisions affecting the individual; or
- c. such conduct has the purpose or effect of substantially interfering with an individual's academic or work performance or creating an intimidating hostile or demeaning employment or educational environment.

2. **Illustrations of Sexual Harassment:** Generally sexual harassment includes any sexual attention which is unwelcome. The following examples of sexual harassment are illustrations of prohibited conduct, but are not an all-inclusive list of such conduct:

- a. Physical assault.
- b. Direct or implied threats that submission to sexual advances will be a condition of employment, work status, promotion, grades, or letters of recommendation.
- c. Direct propositions of a sexual nature.
- d. A pattern of conduct intended to discomfort or humiliate a person that includes one or more of the following:
 - (1) Comments of a sexual nature.
 - (2) Sexually explicit statements, questions, jokes, pictures, or anecdotes.
 - (3) Unnecessary touching, patting, hugging, or brushing against a person's body.
 - (4) Remarks of a sexual nature about a person's clothing or body.
 - (5) Remarks about sexual activity or speculations about previous sexual experience.

In 2.d. above, conduct does not refer to behavior that is legitimately related to the subject matter of a course, if one is involved.

3. Isolated and Unintentional Offenses:

- a. A student or employee of the District who, without establishing a pattern of doing so, engages in isolated conduct as described in 2.d. above or who exhibits a pattern of engaging in such conduct, but fails to realize that such actions discomfort or humiliate a person, demonstrates insensitivity. Upon learning of such activities, the highest level administrator at the location shall direct the person engaged in such conduct to participate in an educational program designed to help the person understand the harm of such activities.
- b. If, after participation in the educational program or failing to participate after being directed to do so, a student or employee continues to engage in the conduct described in 2.d. above, the person will be deemed to have engaged in a pattern of conduct intended to discomfort or humiliate the one at whom the actions or statements are directed.

4. **Filing of Complaint:** A complaint alleging a violation of one or more of the foregoing provisions in this procedure may be filed by the complainant only, i.e., the person towards whom the conduct was directed.

5. Procedures:

a. Informal:

(1) At the complainant's option, an informal complaint may be made to various location representatives that shall be selected by the highest level administrator at the location. The administrator shall consult with the presidents of all employee associations at the location prior to selection of the representatives. Representatives shall be trained to receive complaints and counsel with complainants. Representatives will be objective in taking a complaint and advising complainant; they will be sensitive to the complainant and accused, if the accused is informed; and they will not attempt to intimidate complainant from pursuing the matter. Information disclosed to representatives is confidential and may not be disclosed without consent of the complainant unless required by law.

(2) The representative to whom the complaint is made will counsel the complainant as to the options available under this procedure and, at the complainant's request, (i) may assist the complainant informally and/or (ii) assist the complainant in drafting a formal complaint if the complainant decides to file a formal complaint.

(3) The representative to whom the informal complaint is made will not inform the accused of the complainant's action without the consent of the complainant.

(4) Any records created at this informal level shall not identify the complainant and the accused unless a formal complaint is made.

b. Investigation Prior to Formal Action:

(1) A complainant wishing to make a formal complaint shall file it, in writing, with the District Director of Personnel, if the complainant is an employee, or, with the District Associate Vice Chancellor of Educational Affairs, if a student. The District person receiving a complaint shall send a copy of the complaint to the highest level administrator at the location. The District Personnel Office shall conduct an investigation if the accused is an employee. The Vice President of Student Development or equivalent position shall conduct an investigation if the accused is a student.

(2) The purpose of the investigation is to establish whether there is a reasonable basis for believing that the alleged violation has occurred. In conducting the investigation, the District Personnel Office shall interview the complainant, the accused, and other persons believed to have pertinent factual knowledge. At all times, District Office personnel conducting the investigation will take steps to ensure confidentiality, including without limitation, requiring all parties to agree, in writing, that information disclosed during the investigation will not be disclosed to others. A violation of confidentiality shall be grounds for disciplinary action.

(3) The investigation will afford the accused a full opportunity to respond to the allegations.

(4) Possible outcomes of the investigation are (i) a judgement that the allegations are not warranted; (ii) a negotiated settlement of the complaint; or (iii) initiation of formal action described in succeeding provisions of this procedure.

c. Process of Taking Formal Action:

(1) The decision to take formal action in cases in which an employee is charged, will be made by the next to highest level administrator at the location. If, after reviewing the report of the investigation, the next to the highest level administrator at the location concludes that there is a reasonable basis for believing that the alleged violation has occurred and a negotiated settlement cannot be reached, the administrator shall authorize formal action.

(2) The decision to take formal action in cases in which a student is charged will be made by the Vice President of Student Development or equivalent position. If, after reviewing the report of the investigation, the Vice President of Student Development or equivalent position concludes that there is a reasonable basis for believing that the alleged violation has occurred and a negotiated settlement cannot be reached, the Vice President or equivalent shall authorize formal action. A student accused of a violation of this procedure shall be afforded an opportunity for a hearing under the Code of Student Conduct in this Manual.

(3) If a complaint involves an administrator who is authorized to take formal action as enumerated in (1) above, the decision to take formal action will be made by an administrator of higher rank than the accused administrator shall be assigned to an administrator of higher rank than the accused.

d. Formal Action:

(1) Formal action involving allegations of violations of one or more of the foregoing provisions in this procedure by an employee will be heard by the highest level administrator at the location serving as "hearing officer", and shall be governed by the following guidelines:

(a) The complainant (represented by the investigator or third party, if desired) and the accused who also may be represented by a third party, may:

- (i) present evidence which is relevant as determined by the hearing officer;
- (ii) appear at all hearings;
- (iii) question all witnesses who testify;
- (iv) rebut evidence which is presented; and
- (v) copy documentary evidence which is submitted.

(b) A hearing officer has authority to request production of documentary evidence and to order the appearance of witnesses who are employees. Failure of an employee to comply with a request by a hearing officer may be grounds for disciplinary action.

(c) A hearing officer shall make a decision, based upon a preponderance of the evidence presented at the hearing, and shall report the decision within 10 working days to the complainant and the accused.

(d) Based upon the decision, a hearing officer shall promptly make recommendations to appropriate administrative personnel concerning appropriate action, if any, toward the accused and any other persons involved with a complaint. Such recommendations may include, but are not limited to termination of employment, or other action as deemed appropriate by the hearing officer. Any recommendations which are adopted shall utilize existing policies and procedures in this Manual for implementation.

(2) Upon motion from one of the parties made before the start of the hearing, the hearing officer shall close all or part of the hearing. Upon motion from one of the parties after the hearing has started or from some other interested party, the hearing officer may close all or part of the hearing.

6. Protection of Complainant and Others:

a. Investigations of complaints will be initiated only with the complainant's consent. The complainant will be informed fully of steps taken during the investigation.

b. All reasonable action will be taken to assure that the complainant and those testifying on behalf of the complainant of supporting the complainant in other ways will suffer no retaliation as a result of their activities in regard to the process. Steps to avoid retaliation may include, but are not limited to:

- (1) lateral transfers of one or more of the parties in an employment setting ; or
- (2) arrangements that employment evaluations concerning the complainant or others be made by an appropriate individual, other than the accused.

c. In extraordinary circumstances, the next to highest level

administrator at the location with the consent of the highest level administrator at the location may, any time during or after an investigation of a sexual harassment complaint, suspend from employment the accused with pay. The next to highest level administrator shall suspend an employee from employment after reviewing the allegations and interviewing the accused and complainant, and if it seems appropriate, others with pertinent knowledge, and the administrator finds that it is reasonably certain that (i) the alleged sexual harassment has occurred and (ii) serious and immediate harm will ensue if the accused continues in employment.

7. Protection of the Accused:

- a. At the time the investigation begins, the accused will be informed of the written allegations.
- b. In the event the allegations are not substantiated, all reasonable steps will be taken to restore the reputation of the accused if it has been damaged by the proceeding. An example of such a step may include, but is not limited to, publication of the results of the proceeding.
- c. A complainant found to be intentionally dishonest in making the allegations or to have made them maliciously is subject to disciplinary action which may include, but is not limited to termination of employment. An unsubstantiated complaint is not *per se* malicious or intentionally dishonest.

8. Protecting Both Parties:

- a. To the extent possible, the proceedings will be conducted in a confidential manner calculated to protect the interests of both parties.
- b. After the investigation, the parties will be informed of the facts developed in the course of the investigation.

9. Education: Educational efforts are essential to the establishment of a

climate that is as free as possible of sexual harassment. The goals to be achieved through education are:

- a. ensuring that all victims (and potential victims) are aware of their rights;
- b. notifying individuals of conduct that is prohibited;
- c. informing administrators and others concerning the proper manner to address complaints of violations; and
- d. helping educate the insensitive concerning the problems this policy and procedure addresses.

The highest level administrator at the location is responsible for achieving the above listed goals.

10. Preparation and Dissemination of Information:

- a. The District Director of Personnel is charged with distributing copies of this policy and procedure to all current employees and to all future employees. A copy of this policy and procedure will be included in the college catalog and will be made continually available at appropriate campus centers and offices. It is the responsibility of the highest level administrator at the location to educate all employees concerning the essential elements of this procedure.
- b. The District Director of Personnel will develop a series of training sessions for persons who are likely to receive complaints under this procedure. The highest level administrator at the location is responsible for implementing this training.
- c. The District Director of Personnel will develop or identify a course or counseling designed to inform those who unintentionally violate the provisions in this procedure. The course or assistance shall be mandated for those in violation of provision 3. or this procedure and may be an element in the settlement of a complaint. It also may be mandated for persons found to have violated this procedure.

Texas Department of Health

Recommended Adult Immunization Schedule

Vaccine/ Toxoid/ Biological	Primary Schedule & Boosters	Indications	Major Precautions & Contraindications Other Than Primary Allergies	Special Considerations
Tetanus- Diphtheria Toxoid	2 doses (IM) 4 weeks apart with 3rd dose (booster) 6-12 months then a booster every 10 years.	All Adults		Consider Human Tetanus Immune Globulin (TIG) for dirty wounds in patients with incom- plete immunizations.
Measles Mumps Rubella (MMR) Vaccine	1 dose (SC); boosters for measles are necessary for certain adults.	Measles/Mumps for adults born after 1/1/57 who lack a vaccine history for measles and mumps since their 1st birthday OR serological proof of immunity OR a physician validated statement of Measles/Mumps illness. 2 doses of measles vaccine are recommended for persons at high risk of exposure (e.g. medical per- sonnel). Rubella for any adult who lacks documentation of rubella vaccine since the 1st birthday OR serological proof of immunity.	Pregnancy; immuno-com- promised; hypersensitivity to neomycin and/or eggs	Persons vaccinated with killed measles vaccine (1963-1967) should be revac- cinated with live measles vaccine; MMR is the vaccine of choice if the per- son is likely to be susceptible to more than 1 agent
Hepatitis B Vaccine	2 doses (IM) 4 weeks apart; 3rd dose 5 months after 2nd.	Adults at increased risk of occupational, environmental, social, or family exposure.		
Influenza Vaccine (Split or Whole Vaccine)	1 dose annually (IM)	Adults with high-risk conditions; adults > or = 65 years old; health care workers	Hypersensitivity to eggs; may be given during pregnancy to high-risk patients.	
Pneumo- coccal Poly- saccharide Vaccine (23 Valent)	1 dose (IM or SC); boosters after 6 years indicated for certain adults	Underlying health conditions; adults 65 years old and older; adults with anatomic or functional asplenia	Pregnancy	Immune response is better if vaccinated prior to splenectomy

ALERT!!

MEASLES (aka. rubeola, Red Measles, Hard Measles, 10-day Measles)

Measles is a highly contagious viral disease. Antibiotics are NOT available to treat persons infected with this organism. Recent outbreaks of this illness have included many hospitalizations and several deaths among college-aged persons, for these reasons it is strongly recommended that students of Institutions of Higher Education have two doses of the vaccine prior to beginning classes. Most young adults have had only one dose.

The measles vaccine is most often given in combination with the vaccines for mumps and rubella which are also caused by viruses.

TETANUS (aka. Lockjaw)

The illness caused by tetanus results from the poison produced by a bacteria. Again this is a very difficult illness to treat once it occurs and prevention is the most appropriate choice. The vaccine is effective for about 10 years and needs to be boosted at that interval. It is now common for older adults to develop Tetanus in the United States as many adults do not receive the recommended 10 year boosters.

The Tetanus vaccine should be given in combination with the diphtheria vaccine.

POLIOMYELITIS

In the United States, polio immunization is not routinely recommended for persons 18 years of age or older. However, if travel to other parts of the world is planned, a physician should be contacted for specific recommendations.

SECTION 2.09 AND 2.09A TEX. EDU. CODE

The campus health centers have information regarding local providers of immunization services. Check with the health center for specific local information.

BROOKHAVEN COLLEGE

Brookhaven College, the seventh member institution of the Dallas County Community College District, is conveniently located just north of the city of Dallas in Farmers Branch. Its primary service area is northwest Dallas County — the core of one of the fastest growing business communities in the nation. Since it began operation in 1978, Brookhaven College has experienced phenomenal growth and is now an integral part of the North Dallas communities it serves.

The outstanding faculty, excellent facilities and innovative programs offered at Brookhaven College combine to make an impressive educational package. We are equipped to serve the changing, growing community of which we are a part, and because we provide a wide variety of educational, cultural and recreational opportunities, Brookhaven College is recognized as a valuable community resource.

You will find a full range of accredited freshman- and sophomore-level college courses, which are fully transferable to four-year colleges and universities, offered at Brookhaven College. Students may pursue a two-year associate degree; work toward certification in technical/occupational programs; lay the foundation for transfer to a four-year institution; gain a new skill or refresh an existing one; or simply explore an area of interest.

Counseling and advisement is available for all students enrolling in courses for academic credit. Brookhaven College also offers career counseling and job placement assistance as well as special programs and services for women, veterans, returning adults, students for whom English is a second language, and those with disabilities.

A variety of student and community cultural enrichment offerings complement Brookhaven College's academic programs. Through the Student Programs and Resources office and the Fine Arts Division, the Brookhaven College

Center for the Arts makes a variety of cultural and entertainment events available to the Dallas community. Offerings include visual art exhibits, concerts, dance and theatrical performances by students as well as national talent. National talent showcased includes writer, poet, commentator and dramatist Maya Angelou; Maria Benitez Spanish Dance Company; stage and screen actors Ed Asner and Ossie Davis; comedienne Joan Rivers and Dallas' own international, award-winning chorus, The Vocal Majority.

Designed to easily incorporate expansion, the Brookhaven College campus is situated on a 200-acre site at 3939 Valley View Lane just north of LBJ Freeway between Midway Road and Marsh Lane. The campus architecture and design emphasize open spaces and encourage outdoor activities. State-of-the-art facilities include a 750-seat performance hall; a fully equipped Center for Business Studies; a top-notch Child-Parent Study Center which features a licensed daycare facility; an automotive shop and labs which boast the latest equipment; and a two-mile walking/jogging trail. The landscaping features native Texas plants and the campus is fully accessible to those with physical disabilities.

Accreditation

Brookhaven College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree.

Institutional Memberships

- American Association of Community and Junior Colleges
- Texas Public Community/Junior College Association
- The Texas Association of Colleges and Universities
- The League for Innovation in the Community College

Brookhaven College is recognized and sanctioned by the Coordinating Board of the Texas Education Agency.

BROOKHAVEN COLLEGE ADMINISTRATION

President	Walter G. Bumphus	620-4803
Vice President of Instruction	Larry J. Darlage	620-4802
Vice President of Student Development	Ernest L. Thomas	620-4801
Acting Dean/Instructional & College Services	Kathleen Whitson	620-4822
Acting Dean of Financial Affairs	Maxine Rogers	620-4814
Dean, Continuing Education	Lindle Grigsby	620-4721
Dean of Educational Resources	Sarah Ferguson	620-4854
Dean of Institutional Advancement	Jan Brobst	620-4711
Dean of International Center	Michael Khirallah	620-4608
Dean of Student Support Services	Jennifer Wimbish	620-4830
Director of Admissions/Registrar	Barbara Burke	620-4700
Director of Facility Services	Duane H. Grant	620-4798
Director of Financial Aid	Kathryn K. Novak	620-4110
Director of Human Resources	Jean Zoller	620-4825
Director of Public Information	Pamela E. Ice	620-4823
Director of Resource Development	Mary Brumbach	620-4857
Director of Student Programs and Resources	Lou A. King	620-4115
Asst. Director of Student Programs and Resources	Carrie Schweitzer	620-4117
Program Director	Leticia Rodriguez	620-4722
Program Director	Diane Bohlcke	620-4725
Program Director	Patty S. Forsyth	620-4723
Program Director	Natalie Greenwell	620-4600
Title III Director	Audré Levy	620-4694
Coordinator of Contract Instruction	Jan Kutilek	620-4876
Coordinator of Testing Center	Tim L. Gappa	620-4865
Coordinator of Testing Center	Winifred Clarke	620-4865

DIVISION DEANS

Automotive/Technical Occupational Programs	Marilyn A. Kolesar	620-4189
Business (Acting Dean)	Rafael Diaz	620-4160
Communications	Zack Miller	620-4770
Fine Arts and Physical Education	Rodger Bennett	620-4730
Human Development	Jennifer Wimbish	620-4830
Languages	Curtis Thomas	620-4667
Science and Mathematics	J. Patrick Miller	620-4750
Social Science and Child Development	H. Eugene Gibbons	620-4130

BROOKHAVEN FACULTY AND ADMINISTRATORS

Ames, Lois	A. D. Nursing	Bumphus, Walter G.	President
Michigan State Univ., B.S.N.; Univ. of Texas-Arlington, M.S.N.		Murray State Univ., B.S., M.Ed.; Univ. of Texas-Austin, Ph.D.	
Attner, Raymond E., Jr.	Business	Burke, Barbara	Director, Admissions/Registrar
California St. Univ.- Long Beach, B.S.; N. E. Louisiana Univ., M.B.A.		Missouri Valley College, B.A.	
Austin, Robert F.	Music	Burton, Sharon LaVerne	Office Technology
Univ. of North Texas, B.Mus., M.Mus., D.M.A.		Lamar Univ., B.B.A.; Univ. of North Texas, M.B.E.	
Bartow, Nancy	Developmental Writing/English	Caffee, Claude	Communications/Speech
University of Texas at Dallas, B.A., M.A.		East Texas State Univ., B.S., M.E., Ed.D.	
Becker, Joan	A.D. Nursing	Carlos, Hazel	English
Hunter College, B.S.N.; New York University, M.A.		Jackson State Univ., B.A.; Western Michigan University, M.A.	
Beechum, Jessie	A.D. Nursing	Carpenter, Beverly Anne	Business/Developmental Studies
Univ. of Texas Health Science Center-San Antonio, B.S.N., M.S.N.		Oklahoma State Univ., B.S.; Univ. of Oklahoma, M.L.S.	
Bennett, Rodger	Dean, Fine Arts/Physical Education	Chandler, Sandra	Program Coordinator/Instructor, A.D. Nursing
Southern Methodist Univ.; B.M., B.M., M.M.		Univ. of N. W. Louisiana, B.S.N., Texas Woman's Univ. M.S.	
Blaw, Suzanne	Writing	Chapoton, Jean	A.D. Nursing
Univ. of Texas-Dallas, B.A., M.A.		Univ. of Maryland, B.S.N., M.S.N.	
Bohlcke, Diane	Program Director	Cheng, Elaine L.	Mathematics
Univ. of Houston, B.S., Univ. of North Texas, M.S., Ph.D.		Univ. of Southwestern Louisiana, B.S.; McNeese State Univ., M.S.	
Brisley, Pete	Automotive	Cindair, Carol L.	Developmental Studies/English
Wayland Baptist College; B.S.O.E.		Mount Mary College, B.S.; Northern State College, M.S.; Univ. of North Texas, Ed.D.	
Brobst, Jan	Dean of Institutional Advancement	Clarke, Winifred	Coordinator, Testing Center
Louisiana State Univ.-Baton Rouge, B.S.;		William Woods College, B.A.; Lincoln University, M. Ed.	
Univ. of Tennessee, M.S.; Univ. of Texas-Austin, Ph.D.		Cofar, Don E.	Automotive
Brumbach, Mary A.	Director, Resource Development	Brookhaven College, A.A.S.	
Mary Hardin-Baylor College, B.A.; Univ. of N. Texas, M.A., Ph.D.			

- Collins, Laurie Visual Communications
Univ. of North Texas, B.F.A., M.F.A.
- Conway, Jean English as a Second Language
Univ. of North Texas, B.A., M.A.
- Cross, Sue H. Communications Lab Director, Instructor
Univ. of North Texas, B.A.; Southern Methodist University, M.A.
- Darlage, Larry James Vice President of Instruction
Univ. of Indianapolis, A.B.; Iowa State Univ., Ph.D.
- Diaz, Rafael Acting Dean, Business
Univ. of South Carolina, B.A., M.Ed.; Univ. of Texas/Austin, Ph.D.
- Dillon, Brenda Marie Music
Univ. of North Texas, B.A., M.M.
- Drescher, Nita Reading
Univ. of Texas-Austin, B.S., M.Ed.; Univ. of North Texas, Ph.D.
- Ehrich, Lisa Art
Univ. of Texas at Austin, B.F.A.; Univ. of North Texas, M.F.A.
- Elliott, Mary Lou Mid-Management
Illinois Institute of Technology, B.S.; Governor's State Univ., M.B.A.
- Faulkner, Ann Reading
Univ. of Texas at Austin, B.A., M.A.
- Ferguson, Sarah A. Dean of Educational Resources
Eastfield College, Associate; Texas Woman's Univ., B.A., M.L.S.
- Fleming, Delryn English
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- Filint, Juanita Zapata A.D. Nursing
Texas Woman's Univ., B.S., M.S.
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Univ. of North Texas, B.F.A., M.F.A.
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Mary Hardin-Baylor College, B.A.; Univ. of North Texas, M.Sc.
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Sul Ross State Univ., B.S.
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Univ. of Corpus Christi, B.S.; East Texas State Univ., M.S., Ed.D.
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East Texas State Univ., B.S., M.S.; Licensed Prof. Counselor
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Ouachita College, B.A.; Okla. City Univ., M.A.; Univ. of Okla., Ph.D.
- Graff, Nancy Chemistry
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U.S. Navy (Ret.), Cameron University
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Univ. of Missouri, B.S., M.A.
- Hardin, Carol A.D. Nursing
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- Hilton, Maynard Mid-Management
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- Levy, Audré Title III Director
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Marymount Manhattan College, B.A.; Southern Meth. Univ., M.F.A.
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Louisiana State Univ., B.M. Ed.; Memphis State Univ., M.A.;
East Texas State University, Ph.D.
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S. E. Oklahoma State Univ., B.S.; East Texas State Univ., M.B.A.
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University of New Mexico, B.S., M.A.

- Miller, Zack Dean, Communications
Stanford University, B.A.; Reed College, M.A.T.
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Kilgore Jr. College, A.S.; East Texas State Univ., B.S., M.S.
- Neal, John F. Journalism
Univ. of Houston, B.A.; Univ. of Texas at Austin, M.A.; East
Texas State Univ., M.S.; Univ. of North Texas, Ph.D.
- Nelson, Eileen French/Spanish
Univ. of Dallas, B.A.; Tulane Univ., M.A.; Univ. of Dallas, M.A.
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Richland College, A.A.
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University of Puerto Rico, B.A., M.Ed.
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- Perez, Julie Marie Counselor/Instructor, Human Development
North Texas State Univ., B.S., M.Ed.; Texas Woman's Univ., Ph.D.
- Perl, Michael A. Computer Information Systems
Texas Christian Univ., B.A.; Wichita State Univ., M.S.;
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- Proctor, Robert Automotive
Odessa College, A.A.S.; Tarleton State College, B.S.
- Quetlin, Jane Dance/Theatre
San Jose State Univ., B.A.; Univ. of Utah, M.F.A.
- Reding, Diana L. A.D. Nursing
Hatwick College, B.S.; East Texas State Univ., M.S.
- Rodriguez, Leticia Program Director
Univ. of Texas at El Paso, B.B.A.; Webster Univ., M.A.
- Rowe, Jane Child Development
Michigan State Univ., B.S.; Univ. of Tennessee, M.S.;
East Texas State Univ., Ph.D.
- Rogers, Maxine Acting Dean/Financial Affairs
Prairie View A&M Univ., B.A.
- Rountree, Rhuwan C. (Rudy) Government
East Texas State Univ., B.A., M.A.
- Routh, Brenda F. A.D. Nursing
California State Univ., B.S., M.S.
- Russell, Bob Automotive
Anderson College, B.A.
- Schmitt, Justine A.D. Nursing
Univ. of Michigan, B.S.N.; Texas Woman's Univ., M.S.N.
- Schuchat, Marjorie English
Allegheny College, B.A.; Wayne State Univ., M.A.; Texas Woman's
Univ., Ph.D.
- Schuster, Steve History/Geography
Texas Christian Univ., B.A., M.A., Ph.D.; Univ. of Utah, M.S.
- Schweitzer, Carrie Assistant Director of
Student Programs and Resources; Univ. of Texas at Austin, B.A.
- Shelp, Phillip R. Biology
Concordia Teachers College, B.S.; Arizona State Univ., M.S.
- Shirley, Jack Raymond Accounting
North Texas State Univ., B.B.A.; Univ. of Dallas, M.B.A.
- Sidhwa, Anahita Physics
Univ. of Karachi, B.S. M.S.; Univ. of Hawaii, M.Ed.
- Smith, Martha English
Prairie View A&M, B.A.; Texas Southern University, M.A.
- Smith, Shirley G. Child Development
Univ. of Texas-Austin, B.A.; State Univ. of N. Y. at Brockport, M.S.
- Speyerer, Carol A. D. Nursing
Incarnate Word College, B.S.N.; Texas Woman's Univ., M.S.N.;
Nova Univ., Florida, Ed.D.
- Stewart, W. Gene Mid-Management
Univ. of Arkansas, B.S.E.; Southern Methodist Univ., M.Ed.;
Univ. of North Texas, Ed.D.
- Stock, Bob Physical Education
San Jose State College, B.A.; East Texas State Univ., M.S.
- Stroman, Jamileh English as a Second Language
Univ. of Oregon, B.A., M.A.
- Sullivan, Marilyn Fashion Marketing
Kansas State Univ., B.S., M.S.
- Taylor, Donald Lee Art
Louisville School of Art, B.F.A.; Washington Univ., M.F.A.
- Thomas, Ernest L. Vice President of Student Development
Washington State Univ., B.A.; Univ. of Massachusetts, M.A.
- Thompson, Dora Jean Philosophy/Psychology
Univ. of North Texas, B.A.; Texas Christian Univ., M.A.;
Texas Woman's Univ., M.S.
- Todd, Susan Geology
Univ. of Texas at Austin, B.S.; Univ. of Texas at Dallas, M.A.T.
- Ueoka, Travis Photography/Graphics
New Mexico Highland Univ., B.S.; Indiana Univ., M.S.; East Texas
State Univ., M.S.L.S., Ed.D.
- Venza, Stephanie English
Lamar Univ., B.A.; Univ. of Texas-Austin, M.A.; Univ. of Texas-
Arlington, M.A.
- Villarreal, Ramiro Computer Science/Mathematics
Univ. of Texas at San Antonio, B.S.; Texas A&M Univ., M.S.
- Waddle, Laura A. D. Nursing
Texas Woman's Univ., B.S.N., M.S.N.
- Weaver, David L. Accounting
Oklahoma State Univ., B.S.; Univ. of North Texas, M.B.A.
- Weston, Joan Laveson Sociology
Univ. of Michigan, B.A.; Southern Meth. Univ., M.A.; Univ. of North
Texas, Ph.D.
- Whitson, Kathleen K. Acting Dean/Inst. & College Services
Dallas Baptist Univ., B.A., Southern Methodist Univ., M.L.A.
- Wickham, Sheri English as a Second Language
Pars College, Tehran, B.A.; Texas Woman's Univ., M.Ed.;
Southern Methodist Univ., M.A.
- Williams, Gerald Automotive
East Texas State Univ., B.S.
- Williams, John D. Counselor/Instructor Human Development
Louisiana Technical Univ., B.A., M.A.; North Texas Univ., Ph.D.
- Wimbish, Jennifer Dean of Student Support Services
Hampton Institute, B.S.; Texas A & I, M.A.
- Wright, Harlee A. Director, Project Excel
Texas College, B.A.; Univ. of Texas-Tyler, M.Ed.; East Texas State
Univ., Ed.D.
- Ziegler, Marla Art
McMurry College, B.A.; Southern Methodist Univ., M.A.
- Zoller, Jean Director of Human Resources
Indiana State Univ., B.S.

CEDAR VALLEY COLLEGE

Cedar Valley College opened in 1977 on a 353-acre site at 3030 North Dallas Avenue in Lancaster. The school occupies a strategically important position in southern Dallas County, east of Interstate 35 and south of Interstate 20/635. Continuing residential and industrial expansion in this area has thrust Cedar Valley into an increasingly vital role of service in the community.

Cedar Valley provides a broad range of academic transfer programs for students desiring to continue their education at four-year institutions. In addition, Cedar Valley's technical/occupational programs provide many options for gaining training for area job markets in business, industry and the arts. Continuing Education courses provide people of all ages with exciting opportunities for personal growth, recreation and for improvement of job skills. All these are coupled with an outstanding program of career planning and guidance from a competent counseling staff.

The Campus

Cedar Valley's award winning architecture and careful attention to landscaping have given the College a reputation for being one of the most scenic areas in the Metroplex.

Accreditation

Cedar Valley College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree.

Institutional Membership

The American Association of Community Colleges

The League of Innovation in the Community College

Cedar Valley 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.

Cedar Valley College Mission Statement

Cedar Valley College is a publicly supported comprehensive community college committed to developing the potential and increasing the productivity of the people in the communities it serves.

Cedar Valley College maintains an institutional environment of excellence which facilitates and encourages learning; which emphasizes and values quality education; which champions diversity; which promotes student well-being, and which creates a public understanding and commitment to the college and its value to the community.

Cedar Valley College will maintain a comprehensive curriculum and related support services that reflect the needs of the communities it serves and the financial capabilities of the institution. The college will strive to:

- provide a curriculum balanced with academic, occupational and continuing education offerings
- provide opportunities for learning through excellence in teaching
- provide a learner centered environment
- be responsive to current and future needs of the communities it serves
- provide developmental education for effective participation in occupational education and in further higher education
- foster critical thinking and questioning skills in all students
- prepare students personally and academically to meet the demands of a changing world

Cedar Valley College is committed to providing the highest quality educational experiences for each student it serves.

CEDAR VALLEY COLLEGE ADMINISTRATION

President.....	Carol J. Spencer.....	372-8250
Vice President of Instruction.....	James C. Butzek.....	372-8242
Vice President of Business.....	Brian G. Gutierrez.....	372-8228
Vice President of Student Development.....	Jim Harlow.....	372-8261
Dean of Career and Continuing Education.....	Cecil H. Brewer, Jr.....	372-8216
Dean of Educational Resources.....	Carol Barrett.....	372-8149
Director of Business Operations.....	Bobbie McClung.....	372-8290
Director of Financial Aid.....	Frank Ellis.....	372-8280
Director of Instructional Resources.....	Edna White.....	372-8140
Director of Facilities Services.....	Bob Kostelecky.....	372-8186
Chief of College Police.....	Johnny Hullett.....	372-8286
Director of Special Services.....	Pam Gist.....	372-8119
Registrar and Director of Admissions.....	John Williamson.....	372-8200
Director of Student Programs and Resources.....	Mary Baldwin.....	372-8236
Director of Human Resources.....	Pat Jones.....	372-8225

DIVISION DEANS

Applied Studies.....	Claire Gauntlett.....	372-8127
Business and Social Science.....	Gerald Stanglin.....	372-8110
Communications and Humanities.....	Jerry Cotton.....	372-8120
Math, Science, Physical Education and Veterinary Technology.....	David Heitman.....	372-8160

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Cairo Univ., B.S.; Univ. of Wyoming, B.S., M.S.	
Baldwin, Mary	Director, Student Programs & Resources
University of Texas, Permian Basin, B.A.	
Barrett, Carol	Dean of Educational Resources
Texas Woman's Univ., B.A., M.L.S.	
Beecham, Ron	Biology
East Texas State Univ., B.S., M.S.	
Blibrey, Keith	A/C/Refrigeration
Tarrant County Junior College, A.A.S.	
Bookman, Mary	Dean, Student Support Services
UT Southwest Medical School, B.S.; East Texas State University, M.Ed.	
Brantley, Sharon	Program Director, Continuing Ed.
Prairie View A&M, B.S., M.B.A.	
Brewer, Cecil H.	Dean of Career & Continuing Ed.
Univ. of Texas at Arlington, B.A.; East Texas State Univ., M.S., Ph.D.; Certified Technician, N.I.A.S.E.	
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Northwestern State Univ., B.A., M.A.	
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Loyola Univ., B.S.; Illinois Institute of Technology, Ph.D.	
Christman, Calvin L.	History
Dartmouth College, A.B.; Vanderbilt Univ., M.A., M.A.T.; Ohio State Univ., Ph.D.	
Coston, Sandra	Spanish
University of Texas at Arlington, B.A., M.A.	
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Hardin-Simmons Univ., B.S.; SW Texas State Univ., M.A.; Texas Tech, Ph.D.	
Dawson, C. Edward	Music
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Eishen, Ines	English
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Texas Christian Univ., B.B.A.	
Fant, Milton	Automotive Career Technician
Certified Technician, N.I.A.S.E.	
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Texarkana College, A.S.; East Texas Univ., B.S., M.S., Ed.D.	
Gauntlett, Claire	Dean, Division of Applied Studies
University of North Texas, B.A.; University of Arizona, M.A.	
Germany, Sam	Music
Anderson College, B.A.; Western Michigan Univ., M.M.	
Gilstrap, Nina	English
Wiley College, B.A.; University of Iowa, M.A.	
Gist, Pam	Director of Special Services
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Paul, Duncan A.	Motorcycle, Outboard Engine & Small Engine
University of North Texas, B.S.	
Pharr, John	Business and Retail Management
University of North Texas, B.A., M.S.	
Prado, Maria	ESL/Reading
Catholic University of Puerto Rico, B.A., M.Ed.	
Pratt, John	Business Law & Government
Southern Methodist Univ., J.D., B.A., Texas Law License	
Riley, Joel L.	Human Dev./Counselor
Bishop College, B.S.; University of North Texas, M.Ed.	
Rolling, Lincoln, Jr.	History
Sam Houston State Univ., B.A., M.A.; Univ. of Texas, Ph.D.	
Slone, Jane	
East Texas State Univ., B.S., M.S.	
Slone, Ronald G.	Mid-Management Coordinator/Business
East Texas State Univ., B.B.A., M.B.A.	
Spencer, Carol J.	President
Univ. of Nebraska, Lincoln, B.S., M.A.; Ohio State University, Ph.D.	
Stanglin, Gerald	Dean, Division of Business/Social Science
Abilene Christian Univ., B.A.; Univ. of North Texas, M.A., Ed.D.	
Stein, Connie	Counselor, Human Dev.
Univ. of Texas, Arlington, B.A.; Texas Woman's Univ., M.A.	
Stewart, M. Kerby, Jr.	Music
Texas Christian Univ., B.F.A.	
Sullivan, Tim	Anthropology/Sociology/Religion
Univ. of Southern California, B.A.; Southern Methodist Univ., M.A.	
Taylor, Linda	Art
Louisville School of Art, M.F.A.; Tulane University, M.F.A.	
Taylor, Lisa	Tech Prep Director
Colorado State University, B.S., M.A.	
Thompson, Tommy	Mathematics
Southeastern Louisiana Univ., B.S.; Univ. of Texas, Austin, M.A., Ph.D.	
White, Edna	Director of Instructional Resources
University of Texas, Arlington, B.A.; Univ. of North Texas, M.L.S.	
Wilkie, Dave	Physical Education
Ball State Univ., B.S., M.A.	
Williamson, John	Director of Admissions & Registrar
Kilgore Junior College, A.A.; East Texas State Univ., B.S., M.S.	
Willson, Burlene	Office Technology
Oklahoma State Univ., B.S., M.S.	
Wimblish, Linda	English
Stephen F. Austin, B.A.; East Texas State University, M.S.	
Wright, David L.	Veterinary Technology
Texas A&M Univ., B.S., D.V.M.	
Yeager, Nora	Development Reading
Ball State Univ., B.A., M.A., Univ. of Evansville, Ed.D.	
Yoder, Debby	Physical Education
Univ. of North Texas, B.S.; East Texas State Univ., M.S.	
Youngblood, Mary Ann	English
University of Texas, Arlington, B.A., Univ. of North Texas, M.A.	

EASTFIELD COLLEGE

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

Eastfield provides a full range of academic transfer programs balanced with technical/occupational programs that are designed to equip students for rewarding careers in Metroplex businesses and industries. In addition, thousands of people each semester find rewarding growth opportunities through the extensive continuing education course offerings.

Statement of Purpose

Operating within the framework of the district philosophy, it shall be the mission of Eastfield College to serve in the following ways: to create an atmosphere of tolerance, acceptance and trust in which all persons have maximum opportunity for personal growth and self-fulfillment; to pro-

vide programs to enhance a student's level of cultural, intellectual, psychological and interpersonal development; to serve those persons who seek the first two years of instruction leading to a bachelor's degree; to serve those persons who are preparing for careers in technical-occupational fields; to serve those adults who need additional training for advancement in their present fields or retraining for employment in new fields; and to serve those persons who desire special classes in cultural and civic subjects.

Accreditation

Eastfield College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the Associate of Arts and Sciences Degree and the Associate of Applied Science Degree.

Institutional Memberships

The American Association of Community and Junior Colleges, Southern Association of Junior Colleges, Association of Texas Colleges and Universities, and The League of Innovation in the Community College

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

EASTFIELD COLLEGE ADMINISTRATION

President	Robert Aguero	324-7001
Vice President of Instruction		324-7196
Vice President of Student Development	Felix A. Zamora	324-7610
Vice President of Business Services		324-7603
Dean, Career and Continuing Education		324-7198
Dean, Educational Resources	Michael Burke	324-7169
Associate Dean, Continuing Education	Carolyn Stock	324-7623
Director of Admissions and Registrar	Bobbie J. Trout	324-7100
Director of Appraisal Center	Charles Helton	324-7010
Director of Business Operations	Ed DesPlas	324-7612
Director of College Police	Jim Baylor	324-8333
Director of Counseling	Leon Kilpatrick	324-7106
Director of Facilities Services	George Clark	324-7688
Director of Financial Aid/Veteran Affairs	Furman Milton	324-7188
Director of Health Services	Donnine Ballance	324-7190
Director of Human Resources	Kate Kelley	324-7613
Director of Instructional Resources	Gerald Kozlowski	324-7668
Director of Library	Emma Cronin	324-7171
Director of Public Information	Sharon Cook	324-7629
Director of Student Programs & Resources	John Pruitt	324-7185
Coordinator, Career Planning/Placement	Linda Foley	324-7038
Coordinator, Services for Special Population	Reva Rattan	324-7032

DIVISION CHAIRPERSONS

Business & Mathematics	James D. Baynham	324-7119
Communications & Developmental Studies	Carla Ranger	324-7124
Engineering, Technology & Computer Science	Curt Lezanic	324-7143
Human Development	Leon Kilpatrick	324-7106
Humanities	John Stewart	324-7132
Physical Education & Science	Mark W. Presley	324-7140
Social Science & Technology	Richard Cinclair	324-7156

EASTFIELD COLLEGE FACULTY AND ADMINISTRATION

Aguero, Robert President Southwest Texas Junior College, A.A.; Angelo State Univ., B.A.; Stephen F. Austin State Univ., M.A.; Pennsylvania State Univ., Ph.D.; Further study: Harvard Univ.	Egedigwe, Eges Computer Information Systems Univ. of Ife (Nigeria), B.S.; Atlanta Univ., M.S., M.B.A.; Certified NetWare Engineer; Novell Corp.; Further study: Michigan State Univ.; Univ. of North Texas
Allison, Joe F. Mathematics Stephen F. Austin State College, B.S.; Texas A&M Univ., M.Ed., Ph.D.	England, Carole Continuing Education, Program Director Univ. of Northern Colorado, B.S., M.S.
Arnold, Jackie Auto Body Study, East Texas State Univ., Paris Junior College, General Motors	Erwin, Robert J. Theatre Univ. of South Florida, B.A.; Univ. of Alberta, M.F.A.; Further study: Paul Mann's Acting Workshop, New York, City
Bailey, Kenneth Graphic Arts	Etheredge, John W. Speech Baylor Univ., B.A., M.S.; Further study: Univ. of Houston, Baylor Univ., Texas A&M Univ.
Bajackson, Robert E. Journalism Univ. of North Texas, B.A.; East Texas State Univ., M.A.	Etheredge, Margaret Counselor Austin College, B.A.; East Texas State Univ., M.A.
Balance, Donnine Director of Health Services Baylor Univ., B.A.; Texas Woman's Univ., M.Ed.	Ewing, George E. History Univ. of North Texas, B.S., M.S.; Univ. of Arkansas, Ed.D.
Balvin, Kenneth Physical Education Springfield College, B.S., M.S.; Further study: Ohio State Univ., Azusa Pacific College	Faris, Nancy Program Director, Continuing Education Univ. of Oklahoma, B.A.; Southern Methodist Univ., M.L.A.
Baynham, James D. Division Chairperson, Business & Mathematics Eastfield College, A.A.S.; Abilene Christian Univ., B.B.A., M.S.	Felder, Bob Economics Sam Houston State Univ., B.A., M.A.
Bennett, James Developmental Mathematics Univ. of Texas at Austin, B.A.; Univ. of Houston, M.S.; Further study: East Texas State Univ.	Flickner, Robert E. Physical Education Bethel College, B.S.; Kansas Univ., M.S.
Blair, Oscar T. Physical Education Univ. of North Texas, B.S., M.S.; Further study: Univ. of North Texas, Texas Woman's Univ., East Texas State Univ.	Foley, Linda Coordinator of Career Planning and Placement Wheaton College, B.A.; George Washington Univ., MA Ed.
Boldt, Chris E. Mathematics Texas Tech Univ., B.B.A.; Texas Christian Univ., M.S.; East Texas State Univ., Ed.D.; Further study: Texas Christian Univ., Univ. of North Texas, Univ. of Texas at Austin, Syracuse Univ., Univ. of Colorado at Boulder, Univ. of Hawaii, Stanford Univ., Ohio Univ.	Forrest, Mary L. Speech Univ. of North Texas, B.A.; Southern Methodist Univ., M.F.A.; Univ. of North Texas, Ed.D.
Bowers, James Developmental Reading Arizona State Univ., B.A., M.A.	Gammage, Judie K. Computer Information Systems Southern Methodist Univ., B.A., M.L.A.; Univ. of North Texas, Ph.D.
Bradshaw, Curt Jazz Northern Iowa, B.S.; Univ. of North Texas, M.M.	Gormly, Donna A. English Texas Woman's Univ., B.A., M.A.; Further study: Texas Christian Univ.
Brown, Emmett D. Counselor Univ. of North Texas, B.A., M.Ed.; Further study: El Centro College, Prairie View A&M, Naval School of Photography	Hegar, E. Aylene Psychology Texas Tech Univ., B.A.; Univ. of North Texas, M.Ed., Ed.D.
Brown, Harryette Stover English Southern Methodist Univ., B.A., M.A.; Further study: Univ. of North Texas, East Texas State Univ.	Helton, Charles E. Director of Appraisal Center/CAI Lab East Texas State Univ., B.S.; Further study: East Texas State Univ.
Brumbach, Virginia English Cumberland College, A.A.; Western Kentucky State Univ., B.A.; Baylor Univ. M.A.; Univ. of North Texas, Ed.D.; Post-doctoral, Texas Univ., North Texas Univ., Texas Christian Univ.	Henry, Robert Physical Education Southern Methodist Univ., B.A.; Univ. of Illinois, M.S.; Further study: Univ. of Texas; Univ. of North Texas, East Texas State Univ., Texas Tech Univ., Texas A&M Univ.
Burke, Michael Dean, Educational Resources Univ. of Houston, B.A., M.A.; Univ. of Texas at Austin, Ph.D.	Henson, Jerry C. History/Religion Hardin-Simmons Univ., B.A.; Southwestern Baptist Theological Seminary, B.D.; Baylor Univ. Ph.D.
Carandang, Amado I. Philosophy Kings College, B.A.; Univ. of Notre Dame, M.A., Ph.D.; Further study: California Institute of Asian Studies, San Francisco Brock Univ., Ontario	Herd, Clarence W. Automotive Technology East Texas State Univ., M.A.; Further study: East Texas State Univ.
Carlisle, Charles Richard Spanish Univ. of Arizona, B.A., M.A., Ph.D.; Further study: Instituto Tecnológico y de Estudios Superiores, DePaul Univ., Loyola Univ., Univ. of Dallas.	Hill, H. Rayburn Government Paris Junior College, A.A.; East Texas State Univ., B.S., M.S.; Further study: Univ. of Oklahoma, East Texas State Univ.
Carpenter, Robert W. Accounting Univ. of North Texas, B.B.A., M.B.A.; C.P.A., State of Texas; Further study: Univ. of North Texas, Western State College of Colorado	Holloway, Ralph Director of Telecommunications Amarillo College, A.A.; Hardin-Simmons Univ., B.A.; Univ. of North Texas, M.L.S.; Further study: Univ. of Texas at Austin, East Texas State Univ.
Carr, Laura V. Interpreter Training Program Illinois State Univ., B.S.; New York Univ., M.A.; Further study: East Texas State Univ.	Holman, Morris H. History East Texas State Univ., B.A., M.A.; Dallas Theological Seminary, M.A.B.S.; Further study: Univ. of North Texas
Cate, Franklin M. History East Texas State Univ., B.A.; Univ. of Virginia, M.A.; Further study: Univ. of Texas, Vanderbilt Univ.	Hutchins, Michael E. Computer Aided Design & Drafting East Texas State Univ., B.S., M.S., Ed.D.
Christian, Allen L. Mathematics Arlington State College, B.S.; East Texas State Univ., M.S.; Univ. of North Texas, Ed.D.	Jackson, Jo Ann Counselor Bishop College, B.A.; Prairie View A&M, M.Ed.; Further study: East Texas State Univ.
Cinclair, Richard Division Chairperson, Social Science & Technology Northern State College, B.S.; Univ. of Wisconsin, M.S.; Ball State Univ., Ph.D.	Jacquez, Mary Alice Counselor Eastern New Mexico Univ., B.S., M.A.; Further study: Amber Univ., East Texas State Univ.
Clark, George Director of Facilities Services USAF-Coronado, B.S.; Southern Methodist Univ., M.S.	Jeffus, Larry Air Conditioning & Refrigeration Hiwassee College, A.A.; Univ. of Tennessee, B.S.; Further study: Univ. of Tennessee
Clayton, Glenn N., Jr. English Univ. of North Texas, B.A., M.A.; Further study: East Texas State Univ., Univ. of North Texas	Jensen, Denny H. ESL Univ. of Illinois, B.A.; Teacher's College, Columbia Univ., M.A.
Cobb, Lindy Program Director, Continuing Education East Texas State Univ., B.S.; Abilene Christian Univ., M.S.; Further study: East Texas State Univ.	Jessen, Joel A. Counselor Univ. of Iowa, B.A., M.A.
Cook, Sharon Director of Public Information Baylor Univ., B.A.	Keenan, Donnelle Management Univ. of North Carolina at Chapel Hill, B.A.; Univ. of Oklahoma, M.Ed.
Cronin, Emma Director of Library Univ. of Oklahoma, B.A.; Univ. of North Texas, M.L.S.; Further study: East Texas State Univ., Texas Woman's Univ., New Mexico Highlands Univ.	Kelley, Kate Director of Human Services Univ. of Mary Hardin-Baylor, B.S.; Further study: Univ. of Mary Hardin-Baylor, Institute for Applied Management and Law
Dale, Charles W. Electronics Southeastern State College of Oklahoma, B.S.; Southern Illinois Univ., M.S.; East Texas State Univ., Ed.D.	Kennedy, Pat Child Development Univ. of North Texas, B.A., M.S.
Davis, Vivian English Ball State Teachers College, A.B.; Univ. of Chicago, M.A.T.; Northwestern Univ., Ph.D.; Texas Woman's Univ., M.Ed.	Kirkpatrick, James Michael Computer Aided Design & Drafting Oklahoma City Univ., B.I.A.; Univ. of North Texas, M.Ed.; Ed.D.
Dennis, Vivian Mathematics East Texas State Univ., B.A., M.S., Ed.D.; Further study: Univ. of North Texas	Kilpatrick, Leon Director of Counseling; Division Chairperson, Human Development Langston Univ., B.A.; Univ. of Central Oklahoma, M.Ed.; Texas Southern Univ., Ed.D.
DesPlass, Ed Director of Business Operations Univ. of Texas, Dallas, B.S.	Knight, Carl E. Biology Michigan State Univ., B.S., M.S., Ph.D.
Dotson, Harrell Electronics Univ. of Texas at Arlington, B.A.	Kozlowski, Gerald Director of Instructional Resources Eastfield College, A.A.S.; Univ. of North Texas, B.A.; East Texas State Univ., M.S.; Further study: Univ. of North Texas, Spanish Language Institute
Drake, Helan N. English Southern Methodist Univ., B.A.; Univ. of North Texas, M.A.; Further study: East Texas State Univ.	Latham, Jim Auto Body Technology East Texas State Univ., B.A.; Further study: East Texas State Univ., Texas A&M Univ.
	Leos, Camilo Developmental Mathematics Univ. of Texas at Austin, B.A.; Southern Methodist Univ., M.L.A.
	Leslie, Rose Developmental Writing Southern Methodist Univ., B.A., M.A.; Univ. of North Texas, M.L.S.
	Lezanic, Curt Division Chairperson, Engineering, Technology & Computer Science Univ. of Nebraska at Kearney, B.A., M.S.

- Lopez, Frank** Mathematics
Southwest Texas State College, B.S.; Univ. of Texas at Austin, M.A.;
Further study: Texas A&M Univ., Texas Christian Univ.
- Lucky, Harrell C.** Music
Bethany Nazarene College, B.M.Ed.; Southwestern Baptist Seminary, M.C.M.,
D.M.E.; Further study: Academy of Music, Vienna, Austria
- Madriguera, Enric F.** Music
Oscar Espla Conservatory of Music, Alicante, Spain, Performer's Certificate;
Univ. of Texas at Dallas, M.A.; Further study: NEH Fellowship-Univ. of
Kentucky at Lexington; Royal Conservatory of Music, Madrid, Spain;
UNC-Greensboro
- Martin, M. Diane** English
Univ. of North Texas, B.A.; California State College at Fullerton, M.A.; Univ. of
Texas at Austin, Ph.D.
- Massey, Aaron W.** Counselor
Southwest Texas State, B.S.; East Texas State Univ., M.S.; Further study:
East Texas State Univ., Univ. of North Texas, Abilene Christian Univ.,
Texas A&M Univ.
- Mathus, Don L.** Physical Education
South Plains College, A.A.; Texas Tech Univ., B.S., M.S.; Further study:
Univ. of North Texas
- Maxwell, Rick** Art
Univ. of Dallas, B.A.; Southern Methodist Univ., M.F.A.
- McCoy, David, L.** Photography
Southeastern State College of Oklahoma, B.A.; East Texas State Univ.,
M.S., Ed.D.
- McMahon, Jerry D.** Chemistry
Texas Tech Univ., B.S.; Princeton Univ., M.A.
- Milton, Furman D.** Director of Financial Aid and Placement
Troy State Univ., B.S.; East Texas State Univ., M.Ed., Ph.D.
- Moorhead, Michael** English
Texas Tech Univ., B.A., M.A.; Further study: Texas Tech Univ.
- Morawiec, David** Counselor
St. Mary's College, B.A.; Univ. of Detroit, M.A.; Further study: East Texas State
Univ., Univ. of Texas at Austin, Pan American Univ.
- Mosby, Larry** Computer Aided Design & Drafting
Prairie View A&M, B.S.; Univ. of North Texas, M.S.; Further study: Univ. of
Texas at Austin
- Mouledous, Pierrette M.** Piano
Performer's Certificate, Ecole Normale de Musique; Southern Methodist Univ.,
M.M.
- Nell, Mary Lou** English
Texas Christian Univ., B.A.; Univ. of Dallas, M.A.; Further study: Univ. of
Dallas
- Palmer, Ursula** Interpreter Training Program
Salve Regina College, B.A.; Univ. of Arizona, M.S.; East Texas State Univ.,
Ed.D.
- Penney, Jane A.** Sociology
East Texas State Univ., B.S., M.S.
- Penny, Duane** Director of Business Training Center
Navarro College, A.A.; East Texas State Univ., B.B.A., M.B.A.; Further study:
Univ. of North Texas, East Texas State Univ.
- Phillips, Jim G.** Counselor
East Texas State Univ., B.A., M.A., Ed.D.; Further study: Univ. of North Texas
- Piffard, Ana M.** Spanish
Pan American Univ., B.A., M.A.
- Pitt, J. Michael** Computer Science, Physics
Southern Methodist Univ., B.S.E.E.; Univ. of Texas at Austin, Ph.D.
- Pleasant, P. Leon, Jr.** Accounting
Univ. of North Texas, B.B.A.; East Texas State Univ., M.B.A.; Further study:
East Texas State Univ., Univ. of North Texas
- Pollard, Jennie** Program Director, Continuing Education
Prairie View A&M, B.S., M.S.; Further study: North Texas State Univ.
- Portugal, Joseph** Government
Eastfield College, A.A.S.; Univ. of Texas at Arlington, B.A., M.A.; Further study:
Univ. of Texas at Arlington
- Presley, Mark W.** Division Chairperson, Physical Education & Science
Franklin & Marshall College, A.B.; Univ. of Montana, M.S.; West Virginia Univ.,
Ph.D.
- Preston, David E.** Computer Information Systems
East Texas State Univ., B.S., M.S.; Univ. of North Texas, Ed.D.; Certified
NetWare Engineer, Novell Corporation
- Priest, Andy J.** Automotive Technology
Univ. of North Texas, B.S.; Southern Methodist Univ., M.L.A.; Further study:
East Texas State Univ.
- Privette, Parnell** Electronics
Univ. of Texas at Austin, B.S.E.E.
- Pruitt, John** Director of Student Programs and Resources
Univ. of Oklahoma, B.M.E., M.Ed.
- Purdy, Earlyne** Office Technology
Univ. of North Texas, B.S.; East Texas State Univ., M.S.; Further study:
Univ. of North Texas
- Ramos, Angel** Director of Gallaudet Univ. Regional Center
Manhattan College, B.S.; State Univ. of New York at Geneseo, M.A.; Further
study: Gallaudet Univ.
- Ranger, Carla** Division Chairperson, Communications/Developmental Studies
Memphis State Univ., B.A.; Univ. of Illinois, M.A.
- Rattan, Reva O.** Coordinator of Services for Special Population
Univ. of Texas Health Science Center at Dallas, B.S.
- Rawlins, John Clayton** Electronics
Southern Methodist Univ., B.S.E.E.; East Texas State Univ., M.S.Ed.
- Richardson, Douglas M.** Management
Univ. of North Texas, B.B.A., M.B.A.; Further study: East Texas State Univ. of
North Texas
- Robinson, Yvonne** Computer Information Systems
Univ. of the District of Columbia, B.S.; Univ. of North Texas, M.B.E.; East
Texas State Univ., Ed.D.
- St. Clair, Anita J.** Office Technology
Abilene Christian College, B.S.E.; Univ. of North Texas, M.B.E.;
Further study: Southern Methodist Univ., Univ. of North Texas,
East Texas State Univ.
- Schmitt, Allan B.** Developmental Mathematics
Univ. of Texas at Austin, B.E.S., M.S.E.E., Ph.D.E.E.
- Schrup, Sara J.** Art
Art Institute of Chicago, B.F.A.; Univ. of Dallas, M.A., M.F.A.
- Scott, Ray R.** Physics
Univ. of North Texas, B.A.; East Texas State Univ., M.S.; Purdue Univ., M.S.;
Further study: East Texas State Univ.
- Scott, Sandra Saucedo** Child Development
Texas Woman's Univ., B.A., M.A.
- Sharp, Robert G.** American History
Whitworth College, B.A.; Purdue Univ., M.A.; Further study: Univ. of Denver,
Univ. of New Mexico
- Sherrill, Theodore B. III** Biology
Lamar State Univ., B.S.; East Texas State Univ., M.S.; Further study:
Southern Methodist Univ., Univ. of North Texas, East Texas State Univ.
- Shilling, Gerald** Economics
East Texas State Univ., B.B.A.; Univ. of Dallas, M.B.A.
- Smith, Maryle Bea** Business
Univ. of North Texas B.B.A., M.B.E.; Further study: East Texas State Univ.,
Univ. of North Texas
- Solganick, Harvey** English, German, Philosophy
Univ. of North Texas, B.A., M.Ed.; Southern Methodist Univ., M.L.A.; Univ. of
Heidelberg, Ph.D.; Further study: Univ. of Texas at Arlington, Univ. of Dallas,
Univ. of Texas at Dallas, Univ. of California at Santa Barbara, East
Texas State Univ., Goethe Institute at Lueneberg, Univ. of London
- Stewart, John D.** Division Chairperson, Humanities
East Texas State Univ., B.M.Ed., M.Ed.; Indiana Univ., Ph.D.
- Stimson, Ronald** Computer Information Systems
Kent State Univ., B.S.M.E.D.
- Stock, Carolyn** Associate Dean of Continuing Education
Ohio Univ., B.A.
- Streeter, C. Allen** Engineering
Louisiana State Univ., B.S., M.S.; Further study: Southern Methodist Univ.,
Professional Engineer Registration
- Streng, Adolph C., Jr.** Psychology
Texas Lutheran College, B.A.; Wartburg Seminary, M. Div.; The Univ.
of Chicago, M.A.; Roosevelt Univ., M.A.; Further study: Univ. of Maine, Iowa
State Univ., Univ. of Colorado
- Swindling, James A.** Developmental Reading
Daytona Beach Community College, A.A.; Florida State Univ., B.A., M.S.;
Further study: Univ. of Nevada, East Texas State Univ.
- Thorne, John M.** Accounting
East Texas State Univ., B.B.A., M.B.A.; Further study: Univ. of Oklahoma
- Thornton, Carolyn** Social Work
Univ. of Cincinnati, B.A.; East Texas Univ., M.S.
- Trout, Bobbie** Director of Admissions and Registrar
Univ. of Texas at Austin, B.A.; Univ. of Texas at Dallas, M.A.
- Weaver, Gayle M.** Biology
East Texas State Univ., B.S., M.S.; Univ. of Oklahoma, M.S.;
East Texas State Univ., Ph.D.; Further study: Oak Ridge Institute of Nuclear
Studies
- Whelan, Robert A., Jr.** Humanities
Univ. of South Florida, B.A., M.A.; Further study: East Texas State Univ.
- Williams, Jerome** Biology
East Texas State Univ., B.S., M.S.; Further study: East Texas State Univ.,
Univ. of North Texas
- Wilson, S. Neal** Program Director, Continuing Education
Abilene Christian Univ., B.S.; East Texas State Univ., M.S.
- Windrow, Kathy** Art
Southern Methodist Univ., B.F.A., M.F.A., M.A.; Further study: Eastfield
College
- Winn, Jerry M.** Developmental Mathematics
Oklahoma Univ., B.S.E.E.; Southern Methodist Univ., M.S.
- Wisdom, Hardy** Auto Body Technology
Univ. of North Texas, B.A.
- Wyatt, Susan** Child Development
Texas Woman's Univ., B.S., M.S., Ph.D.
- Zamora, Felix A.** Vice President of Student Development
School for International Training, B.I.S.; Southern Methodist Univ., M.P.A.

EL CENTRO COLLEGE

El Centro, a college of the Dallas County Community College District, is centrally located in downtown Dallas and plays a vital role in its educational advancement.

El Centro's central location allows students from all parts of Dallas County to take advantage of pre-professional courses transferable to four-year institutions, as well as career training in over 40 exciting fields. There is no typical student at El Centro. Students are of all ages and come from all walks of life.

The campus has gained international attention for making use of a nine-story, turn-of-the-century department store, renovated to accommodate classrooms, laboratories, student center, learning center, and administrative offices, as well as a modern wing that houses labs, arts facilities, a cafeteria, gymnasium, and library. Nestled between the two wings is an inviting green space which has been commended for beautifying the downtown area.

Accreditation

El Centro College is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools to award the Associate of Arts and Sciences Degree and the Associate of Applied Science Degree.

Institutional Memberships

El Centro belongs to: The American Association of Community and Junior Colleges; The Association of Texas Colleges and Universities; and The League for Innovation in the Community College.

El Centro 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.

DCCDC Statement of Purpose

The purpose of the DCCCD is to equip students for successful living and responsible citizenship in a rapidly changing local, national and world community. We do this by providing accessible, accredited, affordable, cost-effective, quality educational opportunities for development of job skills, personal growth and/or transfer to a baccalaureate program. In fulfilling our purpose, we further cultural and economic development in the communities we serve.

El Centro's Mission

Valuing the student as its primary commitment, El Centro College provides opportunity for all individuals, recognizing that they bring diversity of purpose, circumstance, background, skills, and ability. Innovative professional and academic curricula offer quality instruction to enhance the mind and equip students with the knowledge and skills required to reach their fullest potential. The faculty and staff of El Centro College join with students and the community in a partnership of learning to serve the educational needs of a diverse population drawn together in an urban setting.

El Centro College offers counseling, guidance, placement, and instruction--as well as a time and place for students to develop, reflect, learn, and grow according to their intellectual and career goals. The college cultivates in students an understanding of community, which encompasses a global perspective, promotes civic responsibility, and develops leadership, enabling them to contribute to society.

EL CENTRO COLLEGE ADMINISTRATION

President	Wright Lassiter, Jr.	746-2010
Vice President of Business Services	Victor J. Rizzo	746-2015
Vice President of Instruction	Linda Stegall	746-2019
Vice President of Student Development	Warren T. Dodson	746-2017
Administrative Assistant to the President	John Dvorak	746-2010
Dean of Educational Resources	D. Ryan Carstens	746-2167
Dean of Health Occupations	Kay Eggleston	746-2269
Dean of Instruction	Ruth Watkins	746-2454
Dean of Student Support Services	Micheal Jackson	746-2033
Associate Dean, Allied Health	Sondra Flemming	746-2271
Associate Dean, Continuing Education	Judy Pouncey	746-2147
Associate Dean, Nursing		746-2269
Director of Admissions and Registrar	Robert Bennett	746-2311
Director of Business Operations	Mike Olliges	746-2044
Director of Financial Aid	Pat Tarpley	746-2199
Director of Health Center		746-2113
Director of Human Resources	Rosemary Holt	746-2064
Director of Learning Center	Rosa Babcock	746-2243
Director of Physical Plant		746-2057
Director of Public Information	Janet James	746-2037
Director of Special Services	Jim Handy	746-2073
Director of Student Programs and Resources	Howard Finney	746-2137
Director of Testing		746-2178
Evening Administrator	Andy Tubbs	746-2157
Resource Development Specialist	Paula Wiley	746-2292
Title III Coordinator	Lisa Theriot	746-2263

DIVISION DEANS

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Communications/Math/Developmental Studies	Georgia Francis	746-2247
Fine and Applied Arts	Betty Moran	746-2337
Health Occupations	Kay Eggleston	746-2269
Physical and Social Sciences	Ray Witherspoon	746-2392

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Incarinate Word College, B.S.; Antioch College, M.Ed.	
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Texas Woman's Univ., B.S.	
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MOUNTAIN VIEW COLLEGE

DCCCD Statement of Purpose

The purpose of the DCCCD is to equip students for successful living and responsible citizenship in a rapidly changing local, national and world community. We do this by providing accessible, accredited, affordable, cost-effective, quality educational opportunities for development of intellectual skills, job skills, personal growth, and/or transfer to a baccalaureate program. In fulfilling our purpose, we further cultural, economic and workforce development in the communities we serve.

Mountain View College Mission Statement

The mission of Mountain View College is to fulfill the Dallas County Community College District Statement of Purpose by providing high-quality educational and cultural programs and also economic development resources for the citizens of southwest Dallas County and surrounding areas.

The college carries out its mission by offering university parallel, technical/occupational, developmental/remedial, continuing education and community service programs. Instruction is provided by highly-qualified faculty, supported with technology and offered in a variety of instructional modes.

Student success is a fundamental part of the college mission and a wide range of student support services is offered to broaden the intellectual, cultural and social foundation of each student.

An ongoing commitment of the college is to maintain physical facilities which are conducive to a positive learning environment, and which provide a source of identity and pride for the community.

Since its beginning in 1970 as the second of seven Dallas County Community College District campuses, Mountain View College has continued to serve as the community learning center for thousands of people in southwestern Dallas County including Oak Cliff, Duncanville, Cedar Hill, and parts of Grand Prairie. Mountain View meets a broad range of educational needs by providing a variety of specially designed, high-level academic, technical, cultural, and recreational programs.

The Mountain View student body is a cross-section of the community represented by a variety of ages and backgrounds who enjoy an academic atmosphere surrounded by the natural setting of the 200-acre campus site. The college's long, flat-roofed buildings gracefully blend in with the environment, allowing spectacular views of the college's natural setting of rocky ravines and a natural creek spanned by two glassed-in pedestrian bridges connecting the east and west complexes.

Programs

Mountain View offers the first two years of undergraduate courses required toward a bachelor's degree at four-year colleges and universities in addition to providing technical and occupational preparation training for a career. The college's Continuing Education programs offer students of all ages the opportunity to enrich their lives with a variety of courses including workshops, seminars and short-term classes for those in pursuit of cultural awareness, leisure-time activities, personal and professional growth.

Mountain View also addresses the educational needs of business and industry through its Contract Training Services office. Seminars, workshops, and courses can be offered according to a company's needs, either on campus or at the workplace. Training can be provided at a time that is convenient for employees, in either a credit or non-credit format.

The college's Performing Artists' Musical Theatre Conservatory (PAMTC) offers students a one-of-a-kind intensive

two-year training program combining instruction in acting, dance, voice, and on-camera techniques into one comprehensive program. The program's purpose is to develop versatile, marketable performers who are also knowledgeable in the business aspects of the profession as well. The PAMTC is designed for the serious performer — not those with a casual interest — therefore applicants must make a commitment to the entire two-year program. Admission to the PAMTC is by audition only.

Mountain View also offers:

- Honors courses and an Honors Scholar Program;
- Life Transitions Program for adults returning to college;
- Learning Skills Center to assist with tutorial services in developmental reading, writing, math and study skills; and
- Student Programs and Resources to enhance the total college experience with a variety of student clubs and organizations, performing arts presentations, vocal and instrumental concerts, art exhibits, lecture series, intramural sports, and many other opportunities for cultural and recreational experiences.

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

Interim President.....	Rodger A. Pool.....	333-8700
V.P. of Business Services.....	Jim Jones.....	333-8705
V.P. of Instruction.....	Curtis Ivery.....	333-8710
V.P. of Student Development.....	Corina Gardea.....	333-8696
Evening Administrator.....	Dick Smith.....	333-8610
Dean, Career & Continuing Ed.....	Don Perry.....	333-8755
Dean, Educational Resources.....	Sharron Colburn.....	333-8525
Dean, Instructional Programs.....	Ann Cunningham.....	333-8632
Dean, Student Support Services		
Counseling.....	Donna Richards.....	333-8606
Health/Disabled Students.....	Donna Richards.....	333-8699
Director of Admissions/Registrar.....	Juan Torres.....	333-8600
Director of Business Operations.....	Christa Martens.....	333-8704
Director of Educational Computing.....	Jim Corvey.....	333-8520
Director of Financial Aid.....	Sarah Winlock.....	333-8688
Director of Human Resources.....	Dorothy Barnett.....	333-8784
Director of Public Information.....	Sharron Colburn.....	333-8678
Director of Student Programs & Resources.....	Guy Gooding.....	333-8685
Manager, Contract Training Services.....	Janie Thomas.....	333-8550

Division Deans

Business/Technology.....	Tom Goza.....	333-8616
Communications/Social Science.....	David Wickham.....	333-8624
Science/Mathematics/PEH.....	Cliff Miller.....	333-8649
Fine Arts/Reading & Writing.....	Ann Cunningham.....	333-8632

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Wintlock, Sarah E......Director, Financial Aid
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NORTH LAKE COLLEGE

North Lake College makes educational and cultural opportunities available to all area citizens with its accessible location and active involvement in the community. This commitment to serve the community has resulted in a balance of academic courses, technical programs and continuing education offerings.

Outstanding facilities provide a stimulating and pleasant environment for students, faculty and staff. This combination makes North Lake an exciting center for personal growth for each of its nearly 10,000 students.

North Lake College Mission Statement

North Lake College is the **bridge that connects individuals and the community through education.**

In support of this mission, North Lake College will

- Maintain high educational standards
- Establish effective learning environments
- Promote excellence in the workforce
- Demonstrate a commitment to student success
- Provide access to life-long learning and enrichment
- Provide programs and resources to help students and the community meet educational goals
- Strengthen support systems to ensure student success
- Encourage innovation, creativity and flexibility
- Celebrate diversity and the integrity of the individual
- Develop responsible citizens concerned with global issues
- Provide a continuing self-evaluation process to include input from the communities we serve

The Campus

Opened in the fall of 1977, North Lake occupies 276 wooded acres in the Las Colinas area of Irving, at 5001 N. MacArthur Boulevard. This architecturally remarkable college is surrounded by gently rolling hills accentuated by a beautiful nine-acre lake. The energy-efficient buildings are designed in a series of terraces which follow the natural elevations of the building site.

North Lake's excellent facilities include a 450-seat Performance Hall, a 2,000 seat gymnasium, and a covered natatorium, complemented by exceptionally well-equipped laboratories, studios, and learning centers.

Accreditation

North Lake College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree.

Institutional Memberships:

The American Association of Community and Junior Colleges

The Texas Public Community/Junior College Association

The Texas Association of Colleges and Universities

The League for Innovation in the Community College

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NORTH LAKE COLLEGE ADMINISTRATION

President.....	James F. Horton	659-5229
Vice President of Instruction.....	Joel E. Vela.....	659-5240
Vice President of Student Development	Student Development Council	659-5242
Vice President of Business Services	James P. Hughes.....	659-5235
Dean of Educational Resources	Lee B. Crowley.....	659-5340
Director of Admissions and Registration	Steve Twenge.....	659-5225
Dean of Continuing Education.....	Richard Fleming	659-5370
Director of Counseling	Lynda Edwards	659-5216
Director of Financial Aid.....	Paul Felix	659-5227
Director of Public Information.....	Julia Benitez Sullivan.....	659-5231
Director of Special Services Program	Mary Ciminelli.....	659-5237

DIVISION NUMBERS

Business.....	659-5290
Communications.....	659-5270
Human Development	659-5216
Humanities/Math/Technologies	659-5320
Natural and Social Sciences/PE.....	659-5250
Technology	659-5233

OTHER TELEPHONE NUMBERS

Admissions and Registration	659-5220
Business Office	659-5244
Campus Police	659-5300
Center for Women and Returning Adults	659-5373
Continuing Education Office	659-5200
Counseling Center	659-5210
Data Center	659-5269
Educational Resources	659-5340
Health Center	659-5209
Library	659-5154

Mailing Services	550-1826
Media Services	659-5341
Personnel	659-5246
Physical Plant	659-5310
Placement Office	659-5211
Printing	550-1826
Public Information	659-5230
Veteran's Affairs	659-5277
Wallace Bookstore	550-0509
Workplace Literacy Program (Abbott)	518-7503

NORTH LAKE COLLEGE FACULTY AND STAFF

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Wilson, Roger	Construction Technology
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RICHLAND COLLEGE

A challenging educational experience awaits students at Richland College, where a dedicated faculty, innovative programs, functional campus design and the beauty of nature combine to create an exciting learning environment.

Richland was the fourth of the seven colleges in the Dallas County Community College District enrolling its first students in 1972. It has subsequently become the largest DCCCD college, enrolling more than 13,500 college credit students and 10,000 non-credit continuing education students each semester.

A comprehensive curriculum is offered at Richland including academic transfer programs, technical/occupational programs and non-credit continuing education courses. In addition, the college offers:

- Honors courses and an Honors Scholar program
- Classics courses and Classics Scholar program
- Global Studies and Global Scholar Program
- International Language Institute
- Multicultural Center
- Adult Resource Center
- Career Information & Placement Services
- Center for Independent Study
- Services for Disabled Students
- R. Jan LeCroy Center for Educational Telecommunications

The Campus

Richland is located on 259 acres at 12800 Abrams Road just north of LBJ Freeway. The campus plan enhances the natural beauty of the site. Campus facilities are linked by pedestrian bridges which extend along both sides of a spring-fed creek and two picturesque lakes. Richland has a performance hall, a greenhouse with a demonstration garden, and a planetarium. The campus athletic complex includes an outdoor swimming pool and a fitness trail.

Richland College/DCCCD Statement Of Purpose

The purpose of Richland College/DCCCD is to equip students for successful living and responsible citizenship in a rapidly changing local, national, and world community. We do this by providing accessible, accredited, affordable, cost effective, quality educational opportunities for the development of job skills, personal growth and/or transfer to a baccalaureate program. In fulfilling our purpose, we further cultural and economic development in the communities we serve.

RICHLAND COLLEGE ADMINISTRATION

President	Stephen K. Mittelstet	238-6364
Vice President of Instruction	Jackie Claunch	238-6193
Vice President of Student Development	Deana Graham	238-6202
Vice President of Business Services	Lee Bacon	238-6205
Vice President of LeCroy Center for Educational Telecommunications	Pamela Quinn	952-0310
Dean of Career & Continuing Education	Susan Muha	238-6195
Dean of Educational Resources	Tom McLaughlin	238-6204
Director of Public Information	Valenda Archer	238-6194

INSTRUCTIONAL DIVISIONS

Business	238-6210
Communications	238-6220
Counseling/Human Development	238-6106
Developmental Studies/Education	238-6230
Humanities	238-6250
Math/Science/Technology	238-6248
Physical Education	238-6260
Social Science	238-6290

STUDENT SERVICES

Admissions/Registration	238-6100	Global Studies	238-6117
Adult Resource Center	238-6331	Honors & Classics Programs	238-6223
Business Office	238-6277	International Language Institute	238-6943
Career Information & Placement Center	238-6921	International Programs	238-6301
College Police	238-6911	Library (LRC)	238-6150
Counseling Center	238-6106	Multicultural Center	238-6900
Center for Independent Study	238-6226	Special Services for Disabled Students	238-6180
English as a Second Language	238-6900	Student Programs (SPAR)	238-6130
Financial Aid	238-6188	Testing/TASP Information	238-6160

RICHLAND FACULTY & ADMINISTRATORS

Acres, Patricia Office Technology Texas Christian University, B.S.C.; University of North Texas, M.B.E.	Coldwell, Patricia C. English Rhodes College, B.A.; Yale University, M.A., M. Phil., Ph.D.
Albertson, Harold D. Engineering/Physics University of Houston, B.S.; Southern Methodist University, M.S.; University of Texas, Ph.D.	Collins, Dan Director of Media Services East Texas State University, B.S., M.S.
Anderson, Loretta G. Accounting University of Connecticut, B.S.; Columbia University, M.P.H., M.B.A.; University of New Orleans, M.S.; CPA, Texas	Cortina, Joe Developmental Reading Citrus Community College, A.A.; San Diego State University, B.A.; University of North Texas, M.Ed., Ed.D.
Archer, Valenda K. Director of Public Information Richland College, A.A.; University of Texas, Arlington, B.A.	Coto Busby, Nora LeCroy Center/Instructional Designer Florida State University, B.S., M.A.
Auzenne, Angela Program Director, Continuing Education University of North Florida, B.A.	Crook, Bob LeCroy Center/Dir. Instructional Telecommunications Services University of Texas, Austin, B.A., M.A.
Bacon, Lee Vice President of Business Services University of Texas, Dallas, M.S.	Daigh, John D. Engineering United States Military Academy, B.S.; University of Illinois, M.S., Ph.D.; Professional Engineer Registration
Barber, Luke E. English/Humanities Southern Methodist University, B.A., M.L.A.; Union Graduate School, Ph.D.	Darin, Mary Director of Counseling Augustana College, A.B.; University of Texas, Austin, M.Ed.
Beheler, Ann Computer Science/Computer Information Systems Oklahoma State University, B.S.; Florida Institute of Technology, M.S.	Davis, Roger Gulon History Union College, B.A.; George Washington University, M.A., Ph.D.
Bell, David Business Stephen F. Austin State University, B.B.A., M.B.A.	Dawson, Phyllis English Ouachita Baptist University, B.A.; Memphis State University, M.A.
Bell, Michael Biology East Texas State University, B.S., M.S.	Deek, Saml D. Mathematics Grace College, B.A.; Ball State University, M.S.
Bird, Sharon W. Development Mathematics University of Texas, Austin, B.S.; Southern Methodist University, M.Ed.; East Texas State University, Ed.D.	Defafield, Charles H. History Southern Methodist University, B.S.; University of North Texas, M.S.
Black, Jane Developmental Writing East Texas State University, B.A., M.A., Ed.D.	Denmon, Carl Developmental Reading Wiley College, B.A.; University of North Texas, M.Ed.
Blackburn, Jo Chemistry Newcomb College, B.S.; Tulane University, M.S.	Dewey, Marilyn Dance University of Kansas, B.S.; Ithaca College, M.S.
Blackerby, Robert A. Mathematics Hardin Simmons University, B.A.; University of North Texas, M.Ed.; University of Illinois, M.A.	Dogger, Barbara English as a Second Language Concordia College, B.A.; Syracuse University, M.A.; University of North Texas, Ph.D.
Blackman, Sharon L. Director, Tech/Occ Programs University of Tennessee, Chattanooga, B.S., M.Ed.	Dolance, John Spanish Colorado State University, B.A.; University of Colorado, M.A.
Blaydes, Bart Ornamental Horticulture Texas Tech University, B.S.; University of Texas, Dallas, M.A.T.	Dryden, Irene J. Spanish/English as a Second Language University of Singapore, B.A. James Cook University of North Queensland, Australia, M.Ed.; State University of New York, Buffalo, Ph.D.
Bookout, Dru C. Speech University of Texas, Austin, B.A.; University of North Texas, M.S.	Duke, Jimmy Dan Government University of North Texas, B.S., M.S.
Bosner, Paul LeCroy Center/Telecourse Producer Southern Methodist University, B.F.A.	Elder, Janet R. Developmental Reading University of Texas, Austin, B.A.; Southern Methodist University, M.A.; Texas Woman's University, Ph.D.
Boyle, Robert History Southern Methodist University, B.A., M.A.	Esparza, Ralph Mathematics Midwestern University, B.S.; Oklahoma State University, M.S.
Brannum, Barbara Developmental Math Trinity University, B.A.; University of Kentucky, M.A.; University of North Texas, Ph.D.	Ezell, Vallye E. History Southern Methodist University, B.A., M.L.A.
Browne, Eleanor J. Developmental Studies Jarvis Christian College, B.A., East Texas State University, M.S.	Flowers, Jana Psychology University of Southern California, B.A., M.A., Ph.D.
Brownlee, Don D. Engineering Technology Louisiana Tech University, B.S.E.E.; East Texas State University, M.S.	Garcia, Rica English University of Texas, Austin, B.A.; Southern Methodist University, M.A.
Burchell, Kay Sociology University of Texas, Arlington, B.A., M.A.	Gibbons, Mary Frances English Sam Houston State University, B.A., M.A.
Burnham, Weldon S. Chemistry University of California, Los Angeles, B.S.; Brigham Young University, Ph.D.	Glass, Victoria Luna Counselor University of Arkansas, B.A.; University of North Texas, M.Ed.
Cadenhead, C.T. Computer Science/Computer Information Systems University of North Texas, B.A., M.S.; Southern Methodist University, M.S., Ph.D.	Gloyd, Jane R. Ornamental Horticulture Richland College, A.A.A.S.; Kansas State University, B.S.; East Texas State University, M.S.
Canham, Raymond P. Division Chair, Math, Science, and Technology University of London, B.Sc.; University of Alberta, Ph.D.	Gonnet, Katherine Developmental Reading Texas Woman's University, B.S.; Southern Methodist University, M.Ed.; University of North Texas, Ed.D.
Carline, David B. Dean of Resource Development University of Maryland, B.A.; University of North Carolina, Greensboro, B.S., M.Ed.	Goode, Peggy Computer Science/Computer Information Systems University of Oklahoma, B.S.; Southern Methodist University, M.A.S.
Carter, Perry Educational Personnel Stephen F. Austin State University, B.S., M.Ed.	Gooch, Stephen E. History Baylor University, B.A., M.A.
Chapman, Sidney Philosophy Roberts Wesleyan College, B.A.; Michigan State University, M.A., Ph.D.	Graham, Deana Vice President, Student Development University of Texas, Austin, B.A., M.Ed., Ph.D.
Christopherson, Craig W. Business Drake University, B.S.; Southern Methodist University, M.B.A.; CPA, Texas	Graham, Stephen Philosophy Southern Methodist University, B.A., M.A.
Chumbley, Richard L. Real Estate Howard Payne University, B.S.; East Texas State University, M.Ed.; Texas A&M University, S.O.A.R.S.; Texas Broker	Gussis, Jerri D. Government Northwestern State College, B.A.; Oklahoma State University, M.S.
Cimaroli, Mary L. English Texas Woman's University, B.S.; East Texas State University, M.A., Ed.D.	Hall, James W. English Southern Methodist University, B.A., M.A.
Clark, Dottie LeCroy Center/Director of Business Operations Nixon Clay College	Haroutunian, Mehrdad Program Director, Special Grants National University of Iran, B.A.; Michigan State University, M.A.
Clark, Ron Director, Business Operations Richland College, A.A.	Harrison, Bobbie, J. Assistant Director of Student Programs Southwestern Christian College, A.S.; Texas Tech University, B.S.; East Texas State University, M.S.
Claunch, Jackie Vice President of Instruction Trinity University, B.A.; Texas A&I University, M.A.; University of North Texas, Ph.D.	Hartman, Henry LeCroy Center/Director of STARLINK Pennsylvania State University, B.A.; M.A.
Clements, Cynthia L. Collection Development/Librarian University of Dallas, B.A.; Texas Woman's University, M.L.S.; University of Texas, Dallas, M.A.	Harwood, Deborah A. Program Director, Continuing Education
	Harwood, John Counselor University of North Texas, B.S., M.Ed.
	Hatz, Mary Iron Eyes Art Texas Woman's University, B.S., M.A.

Hawkins, Vernon	Computer Lab Administrator, Continuing Education Oklahoma State University, B.S.	Macom, John O.	Biology Louisiana Tech, B.S.; Northwestern University, M.S.; University of Colorado, Ph.D.
Hayes, Wes	Director, Physical Plant Tuskegee Institute, B.S.	Miles, John Mike	Physical Education Southern Illinois University, B.S.; New Mexico State University, M.A.
Hayter-Hall, Priscilla	Counselor Florida A & M University, B.S.; University of Florida, M.A.	Miller, Susan J.	Mathematics Austin College, B.A.; Southern Methodist University, M.S.
Henderson, Jim R.	Music Midwestern State University, B.M.Ed.; University of North Texas, M.E.	Millsap, Franklin	Horticulture Muskogee Junior College, A.A.; Oklahoma State University, B.S., M.S.
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Hester, Gwendolyn, L.	Office Technology Michigan State University, M.A.; Wayne State University, B.S., Ed.D.	Molanphy, Helen	Government Marymount College, B.A.; Hunter College, M.A.; University of Texas, Dallas, Ph.D.
Hubbard, Mary Kay	Associate Dean, Continuing Education University of North Dakota, B.A.	Morable, Linda R.	Management Texas Woman's University, B.S., M.B.A.; Florida State University, Ph.D.
Hughes, Robert	Business Central College, A.A.; Southern Nazarene University, B.B.A.; University of North Texas, M.B.E., Ed.D.	Mosley, Joe	Developmental Writing Texas Tech University, B.A.; University of Arkansas, M.A.
Irwin, Jim	Music University of Iowa, B.M., D.M.A.; Indiana University, M.M.	Motley, Tom D.	Art University of Texas, Arlington, B.F.A.; University of Dallas, M.A., M.F.A.
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Jesser-Skaggs, Sharlee	Library Faculty/Reference Librarian Southwest Texas State University, B.A.; University of Texas, Austin, M.L.S.	Muyskens, Lois Anne	Humanities/Art Dakota Wesleyan University, B.A.; University of North Texas, M.Ed.; East Texas State University, Ph.D.
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Kelso, Mark	English Stephen F. Austin State University, B.A., M.A.	Nunley, John Parker	Anthropology University of Texas, Austin, B.A., M.A. Southern Methodist University, M.A., Ph.D.
Kerr, James E.	English University of Iowa, B.A., M.A., M.F.A.	O'Connor Linda	Biology University of Texas, Austin, B.A.; Southern Methodist University, M.A.
Lambert, James W.	Media Consultant, Audio Video Northwestern State College, B.S.; Indiana University, M.S.	Ohlhausen, Orlan D.	Mathematics Abilene Christian University, B.A., M.A.
Lambert, Judith R.	English Southern Methodist University, B.A.; University of North Texas, M.Ed.; University of Texas, Austin, M.A.	Osantowski, Mary	Communications University of Nebraska, Kearney, B.A.; University of North Texas, M.S., Ph.D.
Landfair, Wilene	Office Technology University of Arkansas, Monticello, B.S.; University of North Texas, M.B.E.	Pascal, Nanette	Spanish/Director, International Language Institute Texas Woman's University, M.A.; Villanova University, Havana, Cuba, Ph.D.; East Texas State University, Ph.D.
Leech, Virginia	Journalism University of Texas, Austin, B.S.; Southern Methodist University, M.L.A.	Penner, Gary	Mathematics Nebraska State Teacher's College, B.S.; University of Illinois, M.A.
Leff, Gladys R.	History New York University, B.A., M.A.; University of North Texas, Ph.D.	Perez-Jacome, Maria	Director of Financial Aid University of Illinois, B.A.
Little, Peggy	German Indiana University, A.B., M.A.T.	Perez-Ramos, Sara	Biology/Chemistry University of Puerto Rico, B.S., Texas A&M University, M.S., Ph.D.
Lokke, Donald H.	Geology Wheaton College, B.S.; Texas Tech University, M.S.	Perkins, Dan G.	Psychology Canton Community College A.A.; Bradley University, B.S., M.A.; University of North Texas, Ph.D.
Lopez, Oscar	Coordinator, Special Services Cisco Junior College, A.A.; University of Texas, Austin, B.A.	Peterson, Jane E.	English Bethel College, B.A.; University of Arkansas, M.A., Ph.D.
Lott, Kenneth	Mathematics University of Texas, Austin, B.A.; University of North Texas, M.S.	Peterson, Robert J.	LeCroy Center/Marketing University of Texas, Austin, B.A.
Loucas, Wayne	Photography Miami-Dade Community College, A.A.; Florida International University, B.S.; University of South Florida, M.F.A.	Plicher, Rose Marie	Business Tyler Junior College, A.S.; University of North Texas, B.B.A., M.B.E.
Luter, Edward C.	English University of Dallas, B.A.; University of Miami, M.A.	Plocak, Pat	Management University of North Texas, B.B.A., M.B.A. Southern Methodist University, M.L.A.
MacPhee, Carolyn S.	Program Director, Continuing Education Washington State University, B.A.	Polk, Larry	Counselor East Texas State University, B.A., M.S.
Mandernach, Charles G.	Music University of Northern Iowa, B.A.; Eastman School of Music, M.M.	Poubian, Maurice	French University of Manitoba, M.A.; Sorbonne Nouvelle, M.A.
Martinez, Fred	Counselor University of Dallas, B.A., M.Div.	Price, Jack Randall	Psychology University of North Texas, B.S., M.S., Ph.D.
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Massingale, George W.	Division Chair, Humanities Northeast Louisiana University, B.A., M.M.E. University of North Texas, Ph.D.	Rager, Ernest F.	Humanities University of North Texas, B.M.; University of Illinois, M.S.
Matlock, Jerry L.	Developmental Mathematics University of Texas, Austin, B.A.; East Texas State University, M.S.	Ramos, Emilio	Computer Science/Computer Information Systems University of Mississippi, B.S.; University of Southern Mississippi, M.S.
Matney, Gary	Registrar, Director of Admissions Washburn University, B.S.; Southern Illinois University, M.S.	Reynolds, Jackie S.	Biology Texas A&M, B.S.; University of Hawaii, M.S.
Matter, William W.	English Texas Tech University, B.A., M.A., Ph.D.	Ricks, Gay S.	Counselor East Texas State University, B.S., M.S.
May, Gwen	Computer Science/Computer Information Systems Oklahoma State University, B.S.; University of Texas, Dallas, M.A.T.	Ritter, John T.	Physics University of Tulsa, B.S.; Illinois Institute of Technology, Ph.D.
McElveen, Jerry D.	Division Chair, Communications Southeastern Louisiana University, B.A.; Louisiana State University, M.A.	Rojas, Maria	Spanish Universidad de Madrid, B.A.; University of Texas, Arlington, M.A.
McKay, Lynda	Engineering Technology East Texas State University, B.S.	Ross, Michael	Division Chair, Business East Texas State University, B.S., M.S.
McLaughlin, Thomas A.	Dean of Educational Resources Coalingua College, A.A.; Wisconsin State University, B.S.; Southern Illinois University, M.S.		

Rulz-Esparza, Deborah A. Theatre
 University of North Texas, B.S.; University of Texas, M.F.A.
Schroeder, Al Computer Information Systems
 Southwest Texas State University, B.S.
 Western Michigan University, M.A.; East Texas State University, M.B.A.
Sconce, Evelyn Management
 George Mason College, University of Virginia, B.A.;
 University of Missouri, M.A.; East Texas State University, Ph.D.
Scott, Beverly G. Director, Career & Life Planning Center
 Hardin-Simmons University, B.S.
Sheffield, Charles Theater Design
 University of Texas, Austin, B.F.A., M.F.A.
Showman, Sam Chief, Richland College Police
 Richland College, A.A.
Shorow, David Economics
 Texas Christian University, B.B.A., M.B.A.
Simmons, Rosa Spanish
 Universidad Católica de Valparaíso, B.A.; University of Akron, Ohio, M.A.
Skinner, Joe D. Ornamental Horticulture
 Oklahoma State University, B.S., M.S.
Stonecker, William G. Engineering Technology/Humanities
 Olympic College A.A.; Oregon State University, B.S., M.A.
Somero, Deborah Director of Testing
 Richland College, A.A.S.; University of Texas, Dallas, B.A.
Spence, Patricia R. English/Speech/Film
 Queens College, N.Y., B.A.; University of Wisconsin, M.A.
Stanson, John D. Physical Education
 State University of New York, Buffalo, B.S.; Texas Tech University, M.S.
Stone, Louis R. Physical Education
 Abilene Christian University, B.S.E., M.E.
Stover, James W. Art
 Baylor University, B.F.A.; Columbia University, M.A.;
 Texas Woman's University, M.F.A.
Stupp, William E. English/German
 Pennsylvania State University, B.A., M.A.
Swedlund Trudi J. English/Human Development
 University of Houston, B.A.; Southern Methodist University, M.A.;
 University of North Texas, M.Ed.
Tautbee, Thomas L. Psychology/Sociology
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Teagardin-McQueen, Steffani, S. Physical Education
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 East Texas State University, M.S., Ed.D.
Tennant, Audrey Program Director, Continuing Education
 University of Wisconsin, B.S.; Grace Bible College, B.S.;
 University of Wisconsin, M.S.
Thompson, Donald E. Counselor
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Tinnin, Joe Psychology
 Southern Methodist University, B.A.; Texas Christian University, M.A.
Tinsley, Sam Developmental Math
 Ouachita Baptist University, B.S.; University of Mississippi, M.S., Ph.D.
Trickel, John A. American History
 University of Tulsa, B.A., M.A.; University of North Texas, Ed.D.
Tulloch, Jacquelyn B. LeCroy Center/Director of Instructional Services
 Salem College, B.A.; University of Virginia, M.Ed., Ed.D.
Veratt, Gary D. History/Psychology
 Abilene Christian University, B.S., M.Ed.; University of North Texas, Ph.D.
Vines, Martha Director, Learning Skills
 East Texas State University, B.A.; Amber University, M.S.
Walker, Glen D. Engineering Technology
 University of Oklahoma, B.S.; University of Texas, Dallas, M.A.T.
Wallace, Jerry D. Music
 Texas Christian University, B.M., M.A.; University of North Texas, Ph.D.
Warwick, Noreen M. Political Science
 Southern Methodist University, B.A., M.A.
Waterman, Randy T. Business
 University of North Texas, B.S.; M.B.E.
White, Bill D. Physical Education
 Texas Wesleyan College, B.S.; University of North Texas, M.Ed.
Williams, Joselle Computer Lab Administrator
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Williams, Rebecca Chemistry
 Louisiana State University, B.S.; Southern Methodist University, M.S.
Wood, Hugh G. Western Civilization/U.S. History
 Western State College, B.A.; University of Colorado, M.A., Ph.D.
Yates, Kathryn Government
 Midwestern State University, B.A., M.A.
Young, Gordon D. Art
 University of Nebraska, B.F.A.; Tulane University, M.F.A.
Zimmermann, Patricia Computer Science
 University of Texas, Austin, B.A., M.A.

1993-94 Technical/Occupational Programs Offered On Our Campuses

BHC CVC EFC ECC MVC NLC RLC

Career Education Programs

[illegible]

RLC — Richland College

ASSOCIATE OF ARTS AND SCIENCES DEGREE

IN ORDER TO BE ELIGIBLE TO RECEIVE AN ASSOCIATE OF ARTS AND SCIENCES DEGREE, A STUDENT MUST:

- (1) Complete a minimum of 61 credit hours
- (2) Receive a grade of "C" or better in each of three CORE courses
- (3) Have a passing score on all sections of TASP (for students entering the DCCCD Fall, 1989 or thereafter)
- (4) Complete 61 hours, including the following courses:

Students who plan to transfer to a four-year institution must consult the catalog of that institution to insure that selected courses will both transfer *and* apply toward the intended major. Material about transfer information is available in the Counseling Center.

REQUIREMENTS	CREDIT HOURS TO BE COMPLETED	REQUIREMENTS	CREDIT HOURS TO BE COMPLETED
CORE COURSES		SOCIAL SCIENCE	
English 101	3	History 101	3
Speech Communication 101	3	History 102	3
*Math (100 level or above courses)	3	Government 201	3
Note: You must receive a grade of "C" or better in each of these courses.		Government 202	3
*See an advisor for the appropriate course selection for your major.		Only 3 hours of History and 3 hours of Government may be earned through credit-by-exam.	
English 102	3	BUSINESS	3
Sophomore Literature	3	3 credit hours to be chosen from:	
(Select from English 201, 202, 203, 204, 205, 206, 215, or 216)		Accounting	
Note: English 209 or 210 will not meet this requirement		Business	
LAB SCIENCE	8	Computer Information Systems	
8 credit hours to be chosen from:		Economics	
Biology		or	
Chemistry		Management 136	
Astronomy (Must be either 111 or 101 plus 103; Must be either 112 or 102 plus 104)		Cooperative Work Experience will not meet this requirement.	
Geology		PHYSICAL EDUCATION ACTIVITY	1
Physics		A maximum of 4 physical education activity hours may be counted toward graduation requirements	
or		ELECTIVE CREDIT	16
Physical Science		Any credit course offered in the DCCCD will count toward graduation with the EXCEPTION of the following courses:	
See an advisor for the appropriate course selection for your major.		Courses numbered 099 and below	
HUMANITIES	3	Art 199	
3 credit hours to be chosen from:		College Learning Skills 100	
Art 104		Developmental Communications 120	
Humanities 101		Human Development 100	
Music 104		Human Development 110	
Philosophy 101		Library Science 101	
Theater 101		Music 199	
Foreign Language		Theater 199	
or			
Literature			
(Select from English 201, 202, 203, 204, 205, 206, 215, or 216)			
BEHAVIORAL SCIENCE	3		
3 credit hours to be chosen from:			
Anthropology			
Human Development			
(with the exception of HD 100 and HD 110)			
Psychology			
or			
Sociology			
		TOTAL	61

Students wishing to transfer to a four year institution, must consult the catalog of the institutions to which they wish to transfer. These catalogs should be used by students working with an advisor in planning their academic program. Elective credit courses should be selected based on such an advisement process. The selection of science and math courses is frequently based on the four-year major. SEE AN ADVISOR FOR SELECTION OF APPROPRIATE COURSES.

ACCOUNTING ASSOCIATE

Offered at all seven campuses

(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 Sciences Degree is awarded for successful completion of at least 67 credit hours as outlined below. Students desiring a less comprehensive program that includes some bookkeeping procedures and practices should consider the General Office Certificate. The General Office Certificate is available in the Office Technology Program.

	CREDIT HOURS
SEMESTER I	
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
SEMESTER II	
ACC 202 Principles of Accounting II	3
ENG 102 Composition II	3
CIS 101 Introduction to Computer Applications	
& Concepts	4
OFC 172 Beginning Typing*	3
SC 101 Introduction to Speech	
Communication	3
	16
SEMESTER III	
ACC 203 Intermediate Accounting I	3
ACC 204 Managerial Accounting or	
ACC 238 Costing Accounting	3
ACC 250 Microcomputer-Based Accounting	
Applications	3
ECO 201 Principles of Economics I	3
+ Elective Social/Behavioral Science	3
ACC 703 Cooperative Work Experience or	
ACC 704 Cooperative Work Experience or	
+ + Elective	3-4
	18-19

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.

SEMESTER IV

ACC 239	Income Tax Accounting	3
BUS 234	Business Law	3
ECO 202	Principles of Economics II	3
OFC 231	Business Communications	3
+ + +	Elective Humanities/Fine Arts	3
+ + + +	Elective Any non-ACC course	3
		18

Minimum Hours Required 67

+ Elective—must be selected from the following:

ANT 100	Introduction to Anthropology	3
GVT 201	American Government	3
GVT 202	American Government	3
HST 101	History of the United States	3
HST 102	History of the United States	3
HD 105	Basic Processes 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

+ + Electives—may be selected from the following:

Any CIS or CS Programming Course		
ACC 204	Managerial Accounting	3
ACC 205	Business Finance	3
ACC 207	Intermediate Accounting II	3
ACC 238	Cost Accounting	3
ACC 703	Cooperative Work Experience	3
ACC 704	Cooperative Work Experience	4
ACC 713	Cooperative Work Experience	3
ACC 714	Cooperative Work Experience	4
BUS 143	Personal Finance	3
MGT 136	Principles of Management	3
MGT 237	Organizational Behavior	3
CIS 262	Contemporary Topics in Computer	
	Information Systems	3
CIS 265	Special Topics in Computer Information Systems	4
MKT 206	Principles of Marketing	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 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
Foreign Language		

+ + + + Elective—must be selected from any non-Accounting course.

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

AIR CONDITIONING AND REFRIGERATION -- RESIDENTIAL

Cedar Valley, Eastfield, and North Lake only

(Associate Degree)

This program is designed to train students to meet employment requirements in the field of residential air conditioning. This will include the installation, repair and maintenance of residential air conditioning equipment. Included in this program is the study of residential air conditioners, heat pumps, gas and electric furnaces, humidifiers, and the design of residential air conditioning systems. Throughout the entire program an emphasis is placed on current techniques used by service technicians.

	CREDIT HOURS
SEMESTER I	
ACR 120 Principles of Refrigeration	6
ACR 125 Principles of Electricity	6
MTH 195 Technical Mathematics I or	
MTH 139 Applied Mathematics	3
	15
SEMESTER II	
ACR 130 Residential Cooling Systems	6
ACR 140 Residential Heating Systems	6
PHY 131 Applied Physics	4
	16
SEMESTER III	
ACR 200 Contractor Estimating	6
ACR 212 System Servicing	6
COM 131 Applied Communications or	
ENG 101 Composition I	3
	15
SEMESTER IV	
SC 101 Introduction to Speech	
Communication	3
PSY 131 Applied Psychology and Human	
Relations	3
Elective Humanities/Fine Arts	3
Elective Any non-ACR course	3
+ Elective	2-4
	14-16
Minimum Hours Required	60

+ Electives--must be selected from the following:

AB 245	Welding for Auto Body	3
Any ACR (Air Conditioning and Refrigeration) course		
ACR 109	Contemporary Topics I	2
ACR 110	Contemporary Topics II	3
ACR 137	Contemporary Topics III	1
ACR 138	Contemporary Topics IV	2
ACR 139	Contemporary Topics V	3
ACR 221	Refrigeration Loads	3
ACR 222	Advanced Systems	3
ACR 223	Medium Temperature Refrigeration Systems	3
ACR 224	System Testing and Balancing	3
ACR 227	Low Temperature Refrigeration Systems	3
ACR 228	Air Conditioning System Equipment Selection	3
ACR 229	Refrigeration Equipment Selection	3
ACR 230	Energy Conservation	3
ACR 703	Cooperative Work Experience	3
ACR 704	Cooperative Work Experience	4
ACR 713	Cooperative Work Experience	3
ACR 714	Cooperative Work Experience	4
ACC 131	Bookkeeping I	3
BPR 177	Blueprint Reading - Mechanical	2
BUS 105	Introduction to Business	3
CAD 182	Technician Drafting	2
CIS 101	Introduction to Computer Applications & Concepts	4
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.

AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Eastfield only

(Associate Degree)

This program furnishes both the theory and practice required to qualify a person for employment in the various areas of the air conditioning and refrigeration industry. Special emphasis is placed on commercial and industrial air conditioning and refrigeration during the second year. Hands-on experience stresses operation and troubleshooting of medium and low temperature refrigeration and chilled water air conditioning systems.

	CREDIT HOURS
SEMESTER I	
ACR 120 Principles of Refrigeration	6
ACR 125 Principles of Electricity	6
MTH 195 Technical Mathematics I or	
MTH 139 Applied Mathematics	3
	15
SEMESTER II	
ACR 130 Residential Cooling Systems	6
ACR 140 Residential Heating Systems	6
COM 131 Applied Communications or	
ENG 101 Composition I	3
	15
SEMESTER III	
ACR 221 Refrigeration Loads	3
ACR 223 Medium Temperature Refrigeration	
Systems	3
ACR 227 Low Temperature Refrigeration	
Systems	3
ACR 229 Refrigeration Equipment Selection	3
PSY 131 Applied Psychology and Human	
Relations or	
PSY 101 Introduction to Psychology	3
+ Elective	3-4
	18-19
SEMESTER IV	
ACR 222 Advanced Systems	3
ACR 224 System Testing and Balancing	3
ACR 228 Air Conditioning System Equipment	
Selection	3
ACR 230 Energy Conservation	3
ACR 703 Cooperative Work Experience or	3
+ + Elective	(2-6)
SC 101 Introduction to Speech	
Communication	3
	17-21
Minimum Hours Required	66

+ Electives--must be selected from the following:

AB 245	Welding for Auto Body	3
ACC 131	Bookkeeping I	3
ART 104	Art Appreciation	3
BUS 105	Introduction to Business	3
BUS 143	Personal Finance	3
CIS 103	Introduction to Computer Information Systems ..	3
DTR 137	Fundamentals of Oxygen/Acetylene and	
	Arc Welding	3
HUM 101	Introduction to the Humanities	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
MUS 104	Music Appreciation	3
PHY 131	Applied Physics	4
SPA 101	Beginning Spanish	4

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

ACR 109	Contemporary Topics I	2
ACR 110	Contemporary Topics II	2
ACR 137	Contemporary Topics III	1
ACR 138	Contemporary Topics IV	2
ACR 139	Contemporary Topics V	3
ACR 200	Contractor Estimating	6
ACR 209	Contractor Estimating I	3
ACR 210	Contractor Estimating II	3
ACR 212	System Servicing	6
ACR 213	System Servicing I	3
ACR 214	System Servicing II	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.

APPAREL DESIGN

El Centro only

(Associate Degree)

The apparel designer converts the design idea into an industrial paper pattern used in the mass production of clothing. New style trends each season demand individual creative thinking to develop saleable designs. Upon successful completion of the program, the student enters a women's wear or children's wear manufacturing company as an assistant in the design department.

CREDIT HOURS

SEMESTER I

DES 128	Introduction to Mass Production and Apparel	2
DES 129	Industrial Garment Construction (1st 8 weeks)	1
DES 234	History of Costume	3
DES 110	Basic Color Theory and Application (1st 8 weeks)	3
PDD 151	Pattern Drafting I (2nd 8 weeks)	3
ENG 101	Composition I	3
HUM 101	Introduction to the Humanities or	
PHI 101	Introduction to Philosophy	3

18

SEMESTER II

DES 135	Textiles	3
DES 136	Fashion Sketching	3
DES 235	History of Costume	3
PDD 152	Pattern Drafting II (1st 8 weeks)	3
PDD 153	Pattern Drafting III (2nd 8 weeks)	3
SC 101	Introduction to Speech Communication	3

18

SEMESTER III

DES 229	Advanced Clothing Construction	3
PDD 254	Pattern Drafting IV (1st 8 weeks)	3
PDD 255	Pattern Drafting V (2nd 8 weeks)	3
APP 232	Design Development I	3
APP 237	Style Trends and Research I	2
MTH 130	Business Mathematics	3

17

SEMESTER IV

PDD 256	Pattern Drafting VI (1st 8 weeks)	3
PDD 257	Pattern Drafting VII (2nd 8 weeks)	3
APP 233	Design Development II	3
APP 238	Style Trends and Research II	2
DES 140	Draping or	(1)
PDD 702	Cooperative Work Experience or	(2)
PDD 703	Cooperative Work Experience or	(3)
PDD 704	Cooperative Work Experience	4
+ Elective	.....	3
Elective	.....	3

18-21

Minimum Hours Required 71

+ Elective--must be selected from the following:

HD 105	Basic Processes of Interpersonal Relationships ..	3
HUM 101	Introduction to the Humanities	3
PSY 101	Introduction to Psychology	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.

ASSOCIATE DEGREE NURSING

El Centro and Brookhaven only

(Associate Degree)

The Associate Degree Nursing Program is a two-year, 72 credit hour program, leading to the Associate Degree in Applied Sciences. The program prepares graduates to be eligible to write the NCLEX-RN Examination to become licensed as a Registered Nurse (R.N.) in Texas. The program is accredited by the Board of Nurse Examiners for the State of Texas, and the National League for Nursing.

The program combines classroom and skills laboratory experience with hospital clinical experience. Students are required to be covered by professional liability insurance.

The program offered at Brookhaven is under the administration and accreditation of the El Centro College Associate Degree Nursing Program. Students apply for admission and attend classes at Brookhaven but receive their degrees from El Centro.

Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions to receive an information packet.

ADMISSION TO THE PROGRAM

Applicants are rank ordered for admission based on the G.P.A. earned on three prerequisite courses.

Students Must:

1. Fulfill all requirements for admission to both the college and the Associate Degree Nursing Program.
2. Complete the designated assessment testing process and any required remediation.
3. Complete the three prerequisite courses of English, Biology and Mathematics with a cumulative grade point average of 2.5 or better.
4. Submit a completed admission application packet to the nursing admission office at El Centro or Brookhaven on or before the enrollment period deadline. Information sessions are available to further discuss the application process to the program.

(August Admission - El Centro and Brookhaven)

**CREDIT
HOURS**

SEMESTER I - PREREQUISITES TO PROGRAM ADMISSION

BIO 120	Introduction to Human Anatomy and Physiology* or	
BIO 221	Anatomy and Physiology I	.4
ENG 101	Composition I	.3
MTH 139	Applied Mathematics or	
MTH 101	College Algebra	.3
		<u>10</u>

SEMESTER I

NUR 144	Nursing I	.8
BIO 121	Introduction to Human Anatomy and Physiology or	
BIO 222	Anatomy and Physiology II	.4
PSY 101	Introduction to Psychology	.3
		<u>15</u>

SEMESTER II

NUR 146	Nursing II	.9
BIO 216	General Microbiology	.4
PSY 201	Developmental Psychology	.3
		<u>16</u>

SUMMER SESSION

NUR 245	Nursing III	.3
		<u>4</u>

SEMESTER III

NUR 250	Nursing IV	.9
SC 101	Introduction to Speech Communication	.3
	+ Humanities elective	.3
		<u>15</u>

SEMESTER IV

NUR 258	Nursing V	.9
NUR 259	Nursing V-A	.1
	+ + Elective	.3
		<u>13</u>

Minimum Hours Required 72

*Biology 115 recommended prior to Biology 120 if no previous high school biology.

+ Humanities Elective--must be selected from the following:

ART 104	Art Appreciation	.3
ENG (200 Level Literature Course)		.3
HUM 101	Introduction to the Humanities	.3
MUS 104	Music Appreciation	.3
PHI 101	Introduction to Philosophy	.3
THE 101	Introduction to Theatre	.3
	Foreign Language	

+ + Elective--any non-NUR course.

A "C" grade is required in all courses. Support courses must be completed before or during the semester indicated.

(January Admission - Brookhaven and El Centro only)

CREDIT
HOURS

**SEMESTER I - PREREQUISITES TO PROGRAM
ADMISSION**

BIO 120	Introduction to Human Anatomy and Physiology* or	
BIO 221	Anatomy and Physiology I	4
ENG 101	Composition I	3
MTH 139	Applied Mathematics or	
MTH 101	College Algebra	3
		<u>10</u>

SEMESTER I

NUR 144	Nursing I	8
BIO 121	Introduction to Human Anatomy and Physiology or	
BIO 222	Anatomy and Physiology II	4
PSY 101	Introduction to Psychology	3
		<u>15</u>

SEMESTER II

NUR 146	Nursing II	9
BIO 216	General Microbiology	4
PSY 201	Developmental Psychology	3
		<u>16</u>

SEMESTER III

NUR 250	Nursing IV	9
SC 101	Introduction to Speech Communication	3
+ Humanities Elective		3
		<u>15</u>

SUMMER SESSION

NUR 245	Nursing III	3
		<u>3</u>

SEMESTER IV

NUR 258	Nursing V	9
NUR 259	Nursing V-A	1
+ + Elective		3
		<u>13</u>

Minimum Hours Required 72

*Biology 115 recommended prior to Biology 120 if no previous high school biology.

+ Humanities Elective--must be selected from the following:

ART 104	Art Appreciation	3
ENG (200 Level Literature Course)		3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to Theatre	3
Foreign Language		

+ + Elective--any non-NUR course.

A "C" grade is required in all courses. Support courses must be completed before or during the semester indicated.

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.

ASSOCIATE DEGREE NURSING -- LVN OPTION

CREDIT
HOURS

El Centro only

(Associate Degree)

A Licensed Vocational Nurse in Texas may qualify to complete the Associate Degree Nursing program at an accelerated pace. Students must meet all entrance requirements for the Associate Degree Nursing Program, and complete twenty-four hours of prerequisite courses to enter this articulation option. Upon completion of the "bridging" course, which focuses on the change in role from LVN to RN, the student is granted equivalency credit for the first two semesters of the Associate Degree Nursing Program. The student will then complete the second year of the curriculum. Graduates of this program will receive an Associate in Applied Sciences Degree, and they will be eligible to write the NCLEX-RN Examination to become licensed as a Registered Nurse (RN) in Texas.

ADMISSION TO THE PROGRAM:

Students must:

1. Fulfill any requirements for admission to both the college and the Associate Degree Nursing Program.
2. Complete the designated assessment testing process and any required remediation.
3. Complete the three prerequisite courses of English, Biology 120 and Mathematics with a grade point average of 2.5 or better. Complete the remaining prerequisite courses with a grade of "C" or better.
4. Submit a completed admission application packet to the nursing admission office at El Centro on or before the enrollment period deadline. Information sessions are available to further discuss the application process to the 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.

PREREQUISITES TO PROGRAM ADMISSION

BIO 120	Introduction to Human Anatomy and Physiology* or	
BIO 221	Anatomy and Physiology I	4
ENG 101	Composition I	3
BIO 121	Introduction to Human Anatomy and Physiology or	
BIO 222	Anatomy and Physiology II	4
MTH 139	Applied Mathematics or	
MTH 101	College Algebra	3
PSY 101	Introduction to Psychology	3
BIO 216	General Microbiology	4
PSY 201	Developmental Psychology	3
		24

SEMESTER I

NUR 147	Nursing II A**	5
		5

SUMMER SESSION

NUR 245	Nursing III	3
		3

SEMESTER II

NUR 250	Nursing IV	9
SC 101	Introduction to Speech Communication	3
+ Humanities Elective		3
		15

SEMESTER III

NUR 258	Nursing V	9
NUR 259	Nursing V-A	1
+ + Elective		3
		13

Minimum Hours Required **72**

*Biology 115 recommended prior to Biology 120 if no previous high school biology.

**Upon successful completion of Nursing IIA, 17 hours equivalency credit for Nursing 144 and 146 is awarded in addition to the 5 credit hours earned for Nursing IIA.

+ Humanities Elective--must be selected from the following:

ART 104	Art Appreciation	3
ENG (200 Level Literature Course)		3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to Theatre	3
Foreign Language		

+ + Elective--any non-NUR course.

A "C" grade is required in all courses. Support courses must be completed before or during the semester indicated.

AUTO BODY TECHNOLOGY

Eastfield only

(Associate Degree)

This program introduces the student to all facets of auto body repair and painting. Emphasis is placed upon the development of the necessary skills and knowledge required to function successfully in this industry. The program of study includes technical aspects of metal behavior combined with correct repair and refinishing procedures.

CREDIT HOURS

SEMESTER I

*AB 111	Basic Metal Principles	3
*AB 112	Applied Basic Metal Principles	2
*AB 121	Basic Paint Principles	3
*AB 122	Applied Basic Paint Principles	2
AB 245	Welding for Auto Body	3
MTH 195	Technical Mathematics I	3
		16

SEMESTER II

*AB 113	Minor Metal Repair	3
*AB 114	Applied Minor Metal Repair	2
*AB 123	Paint Blending and Spot Repair Techniques	3
*AB 124	Applied Paint Blending and Spot Repair Techniques	2
COM 131	Applied Communications or	
ENG 101	Composition I	3
PHY 131	Applied Physics	4
		17

SEMESTER III

*AB 211	Major Panel Replacement	3
*AB 212	Applied Major Panel Replacement	2
AB 213	Major Collision and Frame Repair	3
AB 222	Applied Advanced Paint Techniques	2
SC 101	Introduction to Speech Communication	3
PSY 101	Introduction to Psychology	3
		16

SEMESTER IV

AB 139	Body Shop Operations	3
AB 221	Advanced Paint Techniques	3
AB 235	Estimating	3
AB 703	Cooperative Work Experience or	(3)
AB 714	Cooperative Work Experience	4
HUM 101	Introduction to Humanities	3
Elective	Any non-AB course	3
		18-19

Minimum Hours Required 67

*Must be enrolled concurrently in: AB 111/112, AB 113/114, AB 121/122, AB 123/124, and AB 211/212.

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.

AUTO BODY TECHNOLOGY

Eastfield only

(Certificate)

This program is designed to train a student in all facets of auto body repair and painting. Emphasis is placed upon those skills needed by the student to become a successful auto body repair person. This program offers the student a certificate in auto body technology upon successful completion of the program.

CREDIT HOURS

SEMESTER I

*AB 111	Basic Metal Principles	3
*AB 112	Applied Basic Metal Principles	2
*AB 121	Basic Paint Principles	3
*AB 122	Applied Basic Paint Principles	2
AB 245	Welding for Auto Body	3
		<u>13</u>

SEMESTER II

*AB 113	Minor Metal Repair	3
*AB 114	Applied Minor Metal Repair	2
*AB 123	Paint Blending and Spot Repair Techniques	3
*AB 124	Applied Paint Blending and Spot Repair Techniques	2
MTH 195	Technical Mathematics I	3
		<u>13</u>

SEMESTER III

AB 211	Major Panel Replacement	3
*AB 212	Applied Major Panel Replacement	2
AB 213	Major Collision and Frame Repair	3
AB 222	Applied Advanced Paint Techniques	2
SC 101	Introduction to Speech Communication	3
		<u>13</u>

SEMESTER IV

AB 139	Body Shop Operations	3
AB 221	Advanced Paint Techniques	3
AB 235	Estimating	3
AB 703	Cooperative Work Experience or	(3)
AB 714	Cooperative Work Experience	4
		<u>12-13</u>

Minimum Hours Required 51

*Must be enrolled concurrently in: AB 111/112, AB 113/114, AB 121/122, AB 123/124, and AB 211/212.

AUTOMOTIVE CAREER TECHNICIAN

Cedar Valley only

(Associate Degree)

This program prepares the student for full-time employment as an automotive technician. The curriculum is designed to provide the graduate with information, experience and skills needed by technicians. Students are encouraged to take and pass all eight certification tests offered by the National Institute for Automotive Service Excellence while enrolled in the program. Students in this program will be required to participate in cooperative work experience for 12 hours of credit or select ACT 118 classes to total 12 hours of credit. Upon successful completion of the required courses the student will receive an associate degree of applied science.

CREDIT HOURS

SEMESTER I

ACT 110	Fundamentals	3
ACT 111	Electrical Systems I	3
ACT 114	Engine Top End Construction	3
ACT 115	Engine Bottom End Construction	3
		<u>12</u>

SEMESTER II

ACT 113	Electrical Systems II	3
ACT 116	Automotive Service	3
ACT 223	Standard Transmissions & Power Trains	3
ACT 224	Automatic Transmissions	3
		<u>12</u>

SUMMER SESSION

ACT 220	Air Conditioning and Heating Systems	3
		<u>3</u>

SEMESTER III

ACT 222	Engine Tune-Up Procedures	3
ACT 225	Fuel Injection Systems	3
ACT 704	Cooperative Work Experience or	
ACT 118	Automotive Service	4
COM 131	Applied Communications	3
SC 101	Introduction to Speech Communication	3
		<u>16</u>

SEMESTER IV

ACT 216	Parts and Service	2
ACT 221	Suspension, Steering and Brake Systems	3
ACT 714	Cooperative Work Experience or	
ACT 118	Automotive Service	4
MTH 139	Applied Mathematics	3
PHY 131	Applied Physics	4
		<u>16</u>

SEMESTER V

ACT 804	Cooperative Work Experience or	
ACT 118	Automotive Service	4
Elective	Any Non-ACT Course	3
Elective	Humanities/Fine Arts	3
Elective	Social/Behavioral Science	3
		<u>13</u>

Minimum Hours Required 72

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.

AUTOMOTIVE CAREER TECHNOLOGY

Cedar Valley only

(Certificate)

This program is designed to provide the student with information, experience and skills needed for a career in the automotive industry. Students are encouraged to take and pass certification tests by the National Institute for Automotive Service Excellence while enrolled in the program. Upon successful completion of the required courses the student will receive a certificate as an automotive technician trainee. Students completing this certificate may choose to continue for the associate degree in the Automotive Career Technician program.

	CREDIT HOURS
SEMESTER I	
ACT 110 Fundamentals	3
ACT 111 Electrical Systems I	3
ACT 114 Engine Top End Construction	3
ACT 115 Engine Bottom-End Construction	3
	<u>12</u>
SEMESTER II	
ACT 113 Electrical Systems II	3
ACT 118 Automotive Service	3
ACT 223 Standard Transmissions & Power Trains	3
ACT 224 Automatic Transmissions	3
	<u>12</u>
SUMMER SESSION	
ACT 220 Air Conditioning and Heating Systems	3
	<u>3</u>
SEMESTER III	
ACT 222 Engine Tune-Up Procedures	3
ACT 225 Fuel Injection Systems	3
ACT 704 Cooperative Work Experience or	
ACT 118 Automotive Service	4
COM 131 Applied Communications	3
SC 101 Introduction to Speech Communication	3
	<u>16</u>
Minimum Hours Required	43

AUTOMOTIVE TECHNOLOGY

Cedar Valley and Eastfield only

(Associate Degree)

The purpose of this program is to prepare students for entry level employment as an automotive technician. This program of study will include theory, diagnosis, repair, overhaul and maintenance of automobiles. Emphasis is placed on operational theory, practical skills and accepted shop procedures.

CREDIT HOURS

SEMESTER I

AT 109	Minor Vehicle Service	3
AT 110	Engine Repair I	4
AT 112	Engine Repair II	4
COM 131	Applied Communications or	
ENG 101	Composition I	3
MTH 195	Technical Mathematics I	3
		17

SEMESTER II

AT 114	Engine Performance	4
AT 116	Fuel and Emission Systems	4
AT 119	Electrical Systems	3
PHY 131	Applied Physics	4
SC 101	Introduction to Speech	
	Communication	3
		18

SEMESTER III

AT 222	Heating and Air Conditioning	3
AT 223	Brake Systems	4
AT 225	Front End Systems	4
AT 248	Automotive Electronics	3
+ Elective	Social/Behavioral Science	3
		17

SEMESTER IV

AT 228	Standard Transmissions and Drive	
	Trains	3
AT 229	Automatic Transmissions I	4
AT 231	Automatic Transmissions II	4
AT 703	Cooperative Work Experience	3
+ + Elective	Humanities/Fine Arts	3
Elective	Any non-AT course	3
		20

Minimum Hours Required 72

+ Elective—must be selected from the following:

ANT 101	Cultural Anthropology	3
GVT 201	American Government	3
GVT 202	American Government	3
GVT 211	Introduction to Comparative Politics	3
HST 101	History of the United States	3
HST 102	History of the United States	3
HST 105	Western Civilization	3
HST 106	Western Civilization	3
HD 104	Educational and Career Planning	3
HD 105	Basic Processes of Interpersonal	
	Relationships	3
HD 106	Personal and Social Growth	3
HD 107	Developing Leadership Behavior	3
PSY 101	Introduction to Psychology	3
PSY 131	Applied Psychology & Human Relations	3
PSY 201	Developmental Psychology	3
PSY 205	Psychology of Personality	3
SOC 101	Introduction to Sociology	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
ENG 215	Studies in Literature	3
ENG 216	Studies in Literature	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to Theater	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.

AUTOMOTIVE TECHNOLOGY

Cedar Valley and Eastfield only

(Certificate)

The purpose of this program is to train persons for entry level positions in the field of automotive technology. A certificate is issued upon successful completion of the program.

		CREDIT HOURS
SEMESTER I		
AT 109	Minor Vehicle Service	3
AT 110	Engine Repair I	4
AT 112	Engine Repair II	4
MTH 195	Technical Mathematics	3
		<u>14</u>
SEMESTER II		
AT 114	Engine Performance	4
AT 116	Fuel and Emission Systems	4
AT 119	Electrical Systems	3
ENG 101	Composition I or	
COM 131	Applied Communications	3
		<u>14</u>
SEMESTER III		
AT 222	Heating and Air Conditioning	3
AT 223	Brake Systems	4
AT 225	Front End Systems	4
AT 248	Automotive Electronics	3
		<u>14</u>
SEMESTER IV		
AT 227	Standard Transmissions and Drive Trains	4
AT 229	Automatic Transmissions I	4
AT 231	Automatic Transmissions II	4
AT 703	Cooperative Work Experience or	(3)
AT 704	Cooperative Work Experience	4
		<u>15-16</u>
Minimum Hours Required		57

AUTOMOTIVE TECHNOLOGY -- DEALERSHIP-SPONSORED TECHNICIAN

Brookhaven Only

(Associate Degree)

This specialized program is designed to prepare students for entry level employment as automotive technicians in specific manufacturer's dealership service organizations. Students entering this program must be sponsored by participating dealerships approved by the College. Emphasis is placed upon the development of the necessary skills and knowledge required to function in automotive dealerships repairing and maintaining late-model automobiles with electronic systems. This program includes operational theory, practical skills, and accepted shop procedures reinforced by intensive practice during cooperative work experience periods in the sponsoring dealership.

CREDIT HOURS

SEMESTER I

AT 163	Introduction to Automotive Service	3
AT 164	Engine Systems I	3
AT 165	Engine Systems II	3
MTH 195	Technical Mathematics I	3
AT 743	Cooperative Work Experience	2
		<u>14</u>

SEMESTER II

AT 166	Brake Systems	3
AT 167	Steering and Suspension	3
AT 168	Standard Transmissions and Drive Trains	3
PHY 131	Applied Physics	4
AT 753	Cooperative Work Experience	2
		<u>15</u>

SEMESTER III

AT 240	Basic Automotive Electronics	2
AT 241	Automatic Transmissions I	3
AT 242	Automatic Transmissions II	3
ENG 101	Composition I	3
AT 843	Cooperative Work Experience	2
		<u>13</u>

SEMESTER IV

AT 243	Electrical Systems	3
AT 244	Heating and Air Conditioning Systems	3
SC 101	Introduction to Speech Communication	3
PSY 131	Applied Psychology and Human Relations	3
AT 853	Cooperative Work Experience	2
		<u>14</u>

SEMESTER V

AT 245	Ignition and Emission Controls	3
AT 246	Fuel and Emission Systems	3
AT 247	Vehicle Driveability	3
HUM 101	Introduction to the Humanities	3
ELECTIVE	Any Non-AT Course	3
		<u>15</u>

Minimum Hours Required 72

NOTE: Some students enrolling in this program may plan to transfer to four-year institutions. They should consult with an advisor or counselor regarding transfer requirements and to identify how courses will transfer to the four-year institution of their choice.

AUTOMOTIVE TECHNOLOGY -- ELECTRONIC ENGINE CONTROL TECHNICIAN

Brookhaven Only

(Certificate)

The purpose of this program is to provide entry level skills for individuals desiring to enter the field of automotive technology in the specialized area of engine performance diagnosis and analysis. Emphasis is placed on the development of knowledge and skills related to electronic engine controls. A certificate is issued upon successful completion of the program.

	CREDIT HOURS
SEMESTER I	
AT 163 Introduction to Automotive Service	3
AT 164 Engine Systems I	3
AT 165 Engine Systems II	3
MTH 195 Technical Mathematics I	3
	<u>12</u>
SEMESTER II	
AT 240 Basic Automotive Electronics	2
AT 243 Electrical Systems	3
AT 244 Heating and Air Conditioning Systems	3
PHY 131 Applied Physics	4
ENG 101 Composition I	3
	<u>15</u>
SEMESTER III	
AT 245 Ignition and Emission Controls	3
AT 246 Fuel and Emission Systems	3
AT 247 Vehicle Driveability	3
AT 704 Cooperative Work Experience	4
	<u>13</u>
Minimum Hours Required	40

AUTOMOTIVE TECHNOLOGY -- SERVICE TECHNICIAN

Brookhaven Only

(Associate Degree)

The purpose of this program is to prepare students for entry level employment as an automotive technician. This program reflects a building-block approach from simple to complex and includes theory, diagnosis, repair and maintenance of automobiles, including late model vehicles with electronic systems. Emphasis is placed on operational theory, practical skills and accepted shop procedures.

CREDIT
HOURS

SEMESTER I

AT 163	Introduction to Automotive Service	3
AT 164	Engine Systems I	3
AT 165	Engine Systems II	3
MTH 195	Technical Mathematics I	3
ENG 101	English 101	3

15

SEMESTER II

AT 166	Brake Systems	3
AT 167	Steering and Suspension	3
AT 168	Standard Transmissions and Drive Trains	3
PHY 131	Applied Physics	4
PSY 131	Applied Psychology and Human Relations	3

16

SEMESTER III

AT 240	Basic Automotive Electronics	2
AT 241	Automatic Transmissions I	3
AT 242	Automatic Transmissions II	3
AT 243	Electrical Systems	3
AT 244	Heating and Air Conditioning Systems	3
SC 101	Introduction to Speech Communication	3

17

SEMESTER IV

AT 245	Ignition and Emission Controls	3
AT 246	Fuel and Emission Systems	3
AT 247	Vehicle Driveability	3
AT 212	Special Automotive Applications	1
AT 703	Cooperative Work Experience	3
Elective	Any Non-AT Course	3

16

Minimum Hours Required 64

AUTOMOTIVE TECHNOLOGY -- SERVICE TECHNICIAN

Brookhaven Only

(Certificate)

The purpose of this program is to provide entry level skills for individuals desiring to enter the field of automotive technology in specialized areas excluding automatic transmissions and areas dealing with engine performance, diagnosis and analysis. A certificate is issued upon successful completion of the program.

CREDIT
HOURS

SEMESTER I

AT 163	Introduction to Automotive Service	3
AT 164	Engine Systems I	3
AT 165	Engine Systems II	3
AT 166	Brake Systems	3
MTH 195	Technical Mathematics I	3

15

SEMESTER II

AT 167	Steering and Suspension	3
AT 168	Standard Transmissions and Drive Trains	3
PHY 131	Applied Physics	4
ENG 101	Composition I	3

13

SEMESTER III

AT 240	Basic Automotive Electronics	2
AT 243	Electrical Systems	3
AT 244	Heating and Air Conditioning Systems	3
AT 704	Cooperative Work Experience	4

12

Minimum Hours Required 40

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

Mountain View only

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 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; and (5) Aircraft Dispatcher. A one year certificate program is available in Aircraft Dispatcher.

AVIATION TECHNOLOGY -- CAREER PILOT OPTION

Mountain View only

(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.

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**

SEMESTER I

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, Airspace and Air Traffic Control	3
AVT 226	Meteorology	3
		17

SEMESTER II

AVT 128	Aero Engines and Systems	3
AVT 137	Flight Private Pilot*	1
AVT 220	Aero Dynamics	3
AVT 224	Ground School Instrument	3
ENG 101	Composition I	3
+ Mathematics Elective		3
		16

SEMESTER III

AVT 123	Ground School Commercial	3
AVT 221	Advanced Navigation	3
AVT 265	Flight Commercial I*	2
AVT 266	Flight Commercial II*	3
PSY 131	Applied Psychology and Human Relations or	
PSY 101	Introduction to Psychology	3
CIS 103	Introduction to Computer Information Systems	3
		17

SEMESTER IV

AVT 212	Airport Management	3
AVT 267	Flight Commercial III - Instrument*	3
AVT 268	Flight Commercial IV*	3
AV 129	AVT 250 Flight Instructor Ground School or 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.

AVIATION TECHNOLOGY -- AIR CARGO TRANSPORT OPTION

Mountain View only

(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
SEMESTER I	
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
BUS 105 Introduction to Business	3
	15
SEMESTER II	
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
SEMESTER III	
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
SEMESTER IV	
AVT 225 Aviation Marketing	3
BUS 234 Business Law	3
ACC 202 Principles of Accounting II	3
CIS 103 Introduction to Computer Information Systems	3
ECO 201 Principles of Economics I	3
	15
Minimum Hours Required	60

ADDITIONAL CERTIFICATION AVAILABLE FOR CAREER PILOT OPTION

	CREDIT HOURS
Flight Instructor Certificate	
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
Multi-Engine Rating	
AVT 254 Flight Advanced I*	1
Flight Engineer	
AVT 263 Flight Engineer Ground School	3
Air Transport Pilot	
AVT 264 Air Transport Pilot Ground School	3
Type-Rating (small, multi-engine, turbo-jet)	
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.

+ 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.

AVIATION TECHNOLOGY -- AIRCRAFT DISPATCHER OPTION

Mountain View only

(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 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
SEMESTER I	
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
	<u>15</u>
SEMESTER II	
AVT 128 Aero Engine and Systems	3
AVT 221 Advanced Navigation	3
AVT 224 Ground School Instrument	3
CIS 103 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
	<u>15</u>
SEMESTER III	
AVT 123 Ground School Commercial	3
AVT 261 Aircraft Dispatcher	3
MTH 195 Technical Mathematics I	3
PSY 131 Applied Psychology & Human Relations	3
SC 101 Introduction to Speech Communication	3
	<u>15</u>
SEMESTER IV	
AVT 262 Practical Dispatching	3
AV 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
	<u>15</u>
Minimum Hours Required	60

AVIATION TECHNOLOGY -- AIRCRAFT DISPATCHER

Mountain View only

(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 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
SEMESTER I	
AVT 110 Introduction to Aviation	3
AVT 121 Ground School Private	3
AVT 210 FAA Regulations, Airspace and Air Traffic Control	3
AVT 224 Ground School Instrument	3
AVT 226 Meteorology	3
AVT 261 Aircraft Dispatcher	3
	<u>18</u>
SEMESTER II	
AVT 122 Aviation Law	3
AVT 123 Ground School Commercial	3
AVT 128 Aero Engine and Systems	3
AVT 221 Advanced Navigation	3
AVT 262 Practical Dispatching	3
	<u>15</u>
Minimum Hours Required	33

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 -- AIRLINE MARKETING OPTION

Mountain View only

(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
SEMESTER I	
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
BUS 105 Introduction to Business	3
	15
SEMESTER II	
AVT 249 Air Transportation, Traffic and Cargo	3
ACC 201 Principles of Accounting I	3
CIS 103 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
+ Elective	3
	15
SEMESTER III	
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
SEMESTER IV	
AVT 225 Aviation Marketing	3
+ 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.

AVIATION TECHNOLOGY -- FIXED BASED OPERATIONS/AIRPORT MANAGEMENT OPTION

Mountain View only

(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
SEMESTER I	
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
BUS 105 Introduction to Business	3
	15
SEMESTER II	
AVT 226 Meteorology	3
AVT 249 Air Transportation, Traffic and Cargo	3
CIS 103 Introduction to Computer Information Systems	3
ENG 101 Composition I	3
+ Elective	3
	15
SEMESTER III	
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
SEMESTER IV	
AVT 212 Airport Management	3
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.

CHILD DEVELOPMENT ASSOCIATE

Brookhaven and Eastfield only

(Associate Degree)

The Child Development Program offers students an in-depth study of young children from birth to twelve years of age in conjunction with the Parent/Child Study Center that provides students day-to-day involvement with young children. The program is designed to enable students to provide an optimal learning and caring environment for children.

	CREDIT HOURS
SEMESTER I	
CD 135 Introduction to Early Childhood Programs and Services**	4
CD 140 Early Childhood Development, 0-3 Years**	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
SOC 101 Introduction to Sociology	3
+ Elective	3-4
	16-17
SEMESTER II	
CD 137 Early Childhood Learning Environments, Activities and Materials**	4
CD 141 Early Childhood Development, 3-5 Years**	3
CD 702 Cooperative Work Experience or	(2)
CD 713 Cooperative Work Experience or	(3)
CD 804 Cooperative Work Experience	4
PSY 101 Introduction to Psychology or	
PSY 131 Applied Psychology and Human Relations	3
+ Elective	3-4
	15-18
SEMESTER III	
CD 100 Directed Participation in Early Childhood Programs* or	
CD 233 Directed Participation in Early Childhood Programs	4
CD 239 Studies in Child Guidance**	3
GVT 201 American Government	3
SC 101 Introduction to Speech Communication	3
+ Elective	2-4
+ + Elective	3-4
Elective Any Non-CD Course	3
	21-24

SEMESTER IV

CD 150 Nutrition Health and Safety of the Young Child**	3
CD 200 Application of Child Development Learning Theories* or	
CD 244 Application of Child Development Learning Theories	4
MTH 115 College Mathematics or	
MTH 130 Business Mathematics or	
MTH 139 Applied Mathematics	3
SOC 203 Marriage and the Family	3
+ + + Elective	3-4
	16-17

Minimum Hours Required 68

+ Electives—must be selected from the following:

CD 125 Infant and Toddler Learning Environments, Activities and Materials	4
CD 127 Early Childhood Development, 5-12 Years	3
CD 128 Cultural Diversity in the Classroom	3
CD 203 Parents and the Child Caregiver/Teacher	3
CD 209 Early Childhood Development Special Projects	3
CD 236 The Special Child: Growth and Development	3
CD 250 Supportive Services for Exceptional Children	3
CD 251 Learning Programs for Children with Special Needs	3
CD 253 Abuse Within the Family	3
CD 254 Introduction to Administration of Child Care Programs	3
CD 256 Advanced Administrative Practices for Child Care	3
CD 702 Cooperative Work Experience or	(2)
CD 713 Cooperative Work Experience or	(3)
CD 804 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
CIS 101 Introduction to Computer Applications and Concepts	4
MGT 153 Small Business Management	3
OFC 172 Beginning Typing	3

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

ART 104 Art Appreciation	3
MUS 104 Music Appreciation	3
SPA 101 Beginning Spanish	4

*CD 100 and CD 200 are taken as one-hour courses concurrently with the six (6) required CD courses (**) and two (2) of the following CD electives: CD 125, CD 127, CD 203, CD 254, or CD 256. CD 100 and CD 200 are repeated for credit for a total of eight (8) hours and are equivalent to CD 233 and CD 244.

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.

CHILD DEVELOPMENT -- ADMINISTRATIVE CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program will provide an opportunity for the student to study administrative procedures for child care facilities.

	CREDIT HOURS
SEMESTER I	
CD 135 Introduction to Early Childhood Programs and Services	4
CD 140 Early Childhood Development, 0-3 Years or	3
CD 141 Early Childhood Development, 3-5 Years.	3
CD 254 Introduction to Administration of Child Care Programs	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
+ Elective	3
	16
SEMESTER II	
CD 150 Nutrition, Health and Safety of the Young Child	3
CD 239 Studies in Child Guidance	3
CD 256 Advanced Administrative Practices for Child Care Facilities	3
SC 101 Introduction to Speech Communication	3
CIS 101 Introduction to Computer Applications and Concepts or	4
MTH 115 College Mathematics I or	
MTH 130 Business Mathematics or	
MTH 139 Applied Mathematics	(3)
+ Elective	3
	18-19

Minimum Hours Required 34

+ Electives--must be selected from the following:

CD 100 Directed Participation of Early Childhood Programs	1
CD 127 Child Development, 5-12 years	3
CD 200 Application of Child Development Learning Theories	1
CD 203 Parents and the Child Caregiver	3
CD 209 Early Childhood Special Projects	3
CD 253 Abuse Within the Family	3
CD 713 Cooperative Work Experience	3

CHILD DEVELOPMENT -- CDA TRAINING CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program provides course work to assist the student to prepare for the CDA (Child Development Associate) assessment process. Students interested in applying for this national credential should consult a Child Development Instructor.

	CREDIT HOURS
SEMESTER I	
CD 135 Introduction to Early Childhood Programs and Services	4
CD 140 Early Childhood Development, 0-3 Years	3
CD 150 Nutrition, Health and Safety of the Young Child	3
CD 239 Studies in Child Guidance	3
HD 106 Personal and Social Growth	3
+ Elective	3-4
	19-20
SEMESTER II	
CD 137 Early Childhood Learning Environments, Activities and Materials	4
CD 141 Early Childhood Development, 3-5 Years.	3
CD 702 Cooperative Work Experience or	(2)
CD 713 Cooperative Work Experience or	(3)
CD 804 Cooperative Work Experience	4
COM 131 Applied Communications or	
ENG 101 Composition I	3
+ Elective	6-8
	18-22

Minimum Hours Required 37

+ Electives--must be selected from the following:

CD 125 Infant and Toddler Learning Environments, Activities and Materials	4
CD 203 Parents and the Child Caregiver/Teacher	3
CD 209 Early Childhood Development Special Projects ..	3
CD 236 The Special Child: Growth and Development	3
CD 250 Supportive Services for Exceptional Children	3
CD 251 Learning Programs for Children with Special Needs	4
CD 253 Abuse Within the Family	3
CD 254 Introduction to Administration of Child Care Programs	3
CD 256 Advanced Administration Practices for Child Care Facilities	3
ITP 141 Beginning Sign Language	4

CHILD DEVELOPMENT -- INFANT-TODDLER CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program provides for an in-depth study of infant-toddler growth and development, programs, and services.

	CREDIT HOURS
SEMESTER I	
CD 135 Introduction to Early Childhood Programs and Services	4
CD 140 Early Childhood Development, 0-3 Years	3
CD 239 Studies in Child Guidance	3
COM 131 Applied Communications or ENG 101 Composition I	3
+ Elective	3
	<u>16</u>
SEMESTER II	
CD 150 Nutrition, Health and Safety of the Young Child	3
CD 125 Infant and Toddler Learning Environ- ments, Activities and Materials	4
CD 203 Parents and the Child Caregiver/Teacher	3
SC 101 Introduction to Speech Communication	3
CD 253 Abuse Within the Family	3
+ Elective	3
	<u>19</u>
Minimum Hours Required	35

+ Electives--must be selected from the following:

CD 100 Directed Participation of Early Childhood Programs	1
CD 200 Application of Child Development Learning Theories	1
CD 209 Early Childhood Special Projects	3
CD 713 Cooperative Work Experience	3
SOC 203 Marriage and the Family	3

CHILD DEVELOPMENT -- SPECIAL CHILD CERTIFICATE

Brookhaven and Eastfield only

(Certificate)

This certificate program is planned to emphasize the needs of special children and their families.

	CREDIT HOURS
SEMESTER I	
CD 140 Early Childhood Development, 0-3 Years	3
CD 150 Nutrition, Health and Safety of the Young Child	3
CD 236 The Special Child: Growth and Development	3
CD 239 Studies in Child Guidance	3
HD 106 Personal and Social Growth	3
	<u>15</u>
SEMESTER II	
CD 141 Early Childhood Development, 3-5 Years	3
CD 250 Supportive Services for Exceptional Children	3
CD 251 Learning Programs for Children with Special Needs	4
CD 702 Cooperative Work Experience or (2)	
CD 713 Cooperative Work Experience or (3)	
CD 804 Cooperative Work Experience	4
COM 131 Applied Communications or ENG 101 Composition I	3
+ Elective	3-4
	<u>18-20</u>
Minimum Hours Required	33

+ Elective--must be selected from the following:

CD 125 Infant and Toddler Learning Environments, Activities and Materials	4
CD 127 Early Childhood Development, 5-12 Years	3
CD 253 Abuse Within the Family	3
ITP 141 Beginning Sign Language	4

COMMERCIAL MUSIC -- ARRANGER/COMPOSER/COPYIST

Cedar Valley only

(Associate Degree)

This program is designed to prepare the student with the writing skills required for arranging and composing for small and large instrumental and vocal groups in all areas of commercial music, i.e., jazz, rock, pop, country/western. Standard manuscript techniques will be emphasized in actual writing assignments.

	CREDIT HOURS
SEMESTER I	
MUS 145 Music Theory I	3
MUS 161 Musicianship I	1
MUS 117 Piano Class I	1
MUS 190 Survey of Recording	2
MUS 191 Survey of Recording Lab	1
MUS 192 Music in America	3
MUS 199 Recital	1
MTH 139 Applied Mathematics	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>17-18</u>

SEMESTER II	
MUS 146 Music Theory II	3
MUS 162 Musicianship II	1
MUS 118 Piano Class II	1
MUS 196 Business of Music	3
MUS 199 Recital	1
BUS 105 Introduction to Business	3
PSY 131 Applied Psychology and Human Relations	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>17-18</u>

SEMESTER III	
MUS 193 Improvisation	3
MUS 189 Computerized Music Production I	2
MUS 199 Recital	1
MUS 292 Arranging/Orchestration	3
MUS 245 Music Theory III	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>14-15</u>

SEMESTER IV	
MUS 199 Recital	1
MUS 203 Composition	3
MUS 246 Music Theory IV	3
COM 131 Applied Communications or ENG 101 Composition I	3
SC 101 Introduction to Speech Communication	3
+ Ensemble	1
+ + Applied Music	1-2
Elective Any Non-MUS Course	3
	<u>18-19</u>

Minimum Hours Required 66

+ Ensembles—must be selected from the following:

MUS 103 Guitar Ensemble	1
MUS 150 Choir	1
MUS 155 Vocal Ensemble	1
MUS 160 Band	1
MUS 171 Woodwind Ensemble	1
MUS 172 Brass Ensemble	1
MUS 173 Percussion Ensemble	1
MUS 174 Keyboard Ensemble	1
MUS 176 Symphonic Wind Ensemble	1
MUS 181 Lab Band	1
MUS 185 Stage Band	1

+ + Applied Music—courses to be selected from any music course numbered from MUS 121 through MUS 143 or MUS 221 through MUS 243.

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.

COMMERCIAL MUSIC -- MUSIC RETAILING

Cedar Valley only

(Associate Degree)

This program is designed to prepare the music major in retailing for the music industry job market. Training is provided in music skills as well as in business, i.e., business of music, salesmanship, small business management. The training is culminated with work experience coordinated through local merchants.

CREDIT HOURS

SEMESTER I

MUS 145	Music Theory I	3
MUS 161	Musicianship I	1
MUS 117	Piano Class I	1
MUS 196	Business of Music	3
MUS 199	Recital	1
BUS 105	Introduction to Business	3
COM 131	Applied Communications or	
ENG 101	Composition I	3
+ Ensemble		1
+ + Applied Music		1
		17

SEMESTER II

MUS 146	Music Theory II	3
MUS 162	Musicianship II	1
MUS 118	Piano Class II	1
MUS 199	Recital	1
MKT 137	Principles of Retailing	3
MKT 230	Salesmanship	3
SC 101	Introduction to Speech Communication	3
+ Ensemble		1
+ + Applied Music		1
		17

SEMESTER III

MUS 190	Survey of Recording	2
MUS 191	Survey of Recording Laboratory	1
MUS 199	Recital	1
MUS 703	Cooperative Work Experience	3
MTH 130	Business Mathematics	3
PSY 131	Applied Psychology & Human Relations	3
+ + Applied Music		1
		14

SEMESTER IV

MUS 189	Computerized Music Production I	2
MUS 199	Recital	1
MUS 713	Cooperative Work Experience	3
ACC 201	Principles of Accounting I	3
MGT 153	Small Business Management	3
+ + Applied Music		1-2
Elective	Any Non-MUS Course	3
		16-17

Minimum Hours Required 64

+ Ensembles—must be selected from the following:

MUS 103	Guitar Ensemble	1
MUS 150	Choir	1
MUS 155	Vocal Ensemble	1
MUS 160	Band	1
MUS 171	Woodwind Ensemble	1
MUS 172	Brass Ensemble	1
MUS 173	Percussion Ensemble	1
MUS 174	Keyboard Ensemble	1
MUS 176	Symphonic Wind Ensemble	1
MUS 181	Lab Band	1
MUS 185	Stage Band	1

+ + Applied Music—courses must be selected from any music course numbered from MUS 121 through MUS 143 or MUS 221 through MUS 243.

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.

COMMERCIAL MUSIC -- MUSIC RETAILING CERTIFICATE

Cedar Valley only

(Certificate)

This program is designed to prepare the music major in retailing for the music industry job market. Training is provided in music skills as well as in business, i.e., business of music, salesmanship, retailing techniques.

CREDIT HOURS

SEMESTER I

MUS 113	Fundamentals of Music I	3
MUS 117	Piano Class I	1
MUS 196	Business of Music	3
MUS 199	Recital	1
COM 131	Applied Communications or	
ENG 101	Composition I	3
BUS 105	Introduction to Business	3
+ Ensemble		1
+ + Applied Music		1
		16

SEMESTER II

MUS 189	Computerized Music Production I	2
MUS 199	Recital	1
SC 101	Introduction to Speech	
	Communication	3
MTH 130	Business Mathematics	3
MKT 137	Principles of Retailing	3
MKT 230	Salesmanship	3
+ Ensemble		1
+ + Applied Music		1
		17

Minimum Hours Required 33

+ Ensembles--must be selected from the following:

MUS 103	Guitar Ensemble	1
MUS 150	Choir	1
MUS 155	Vocal Ensemble	1
MUS 160	Band	1
MUS 171	Woodwind Ensemble	1
MUS 172	Brass Ensemble	1
MUS 173	Percussion Ensemble	1
MUS 174	Keyboard Ensemble	1
MUS 176	Symphonic Wind Ensemble	1
MUS 181	Lab Band	1
MUS 185	Stage Band	1

+ + Applied music courses to be selected from any music course numbered from MUS 121 through MUS 143 or MUS 221 through MUS 243.

COMMERCIAL MUSIC -- PERFORMING MUSICIAN

Cedar Valley only

(Associate Degree)

This program is designed to prepare the instrumental and vocal student for performances in commercial music, i.e., jazz, rock, pop, country/western. This training will include work in performance techniques, styles, solo and ensemble work, repertoire for small and large groups, and actual performances.

	CREDIT HOURS
SEMESTER I	
MUS 145 Music Theory I	3
MUS 161 Musicianship I	1
MUS 117 Piano Class I	1
MUS 190 Survey of Recording	2
MUS 191 Survey of Recording Lab	1
MUS 192 Music in America	3
MUS 199 Recital	1
MTH 139 Applied Mathematics	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>17-18</u>
SEMESTER II	
MUS 146 Music Theory II	3
MUS 162 Musicianship II	1
MUS 118 Piano Class II	1
MUS 196 Business of Music	3
MUS 199 Recital	1
BUS 105 Introduction to Business	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>17-18</u>
SEMESTER III	
MUS 193 Improvisation	3
MUS 199 Recital	1
MUS 292 Arranging/Orchestration	3
MUS 293 Independent Study or	
MUS 703 Cooperative Work Experience	3
SC 101 Introduction to Speech	
Communication	3
+ Ensemble	1
+ + Applied Music	1-2
	<u>15-16</u>

SEMESTER IV

MUS 199 Recital	1
MUS 194 Jazz Workshop	3
MUS 713 Cooperative Work Experience	3
PSY 131 Applied Psychology and Human	
Relations	3
+ Ensemble	1
+ + Applied Music	1-2
Elective Any Non-MUS Course	3
	<u>15-16</u>

Minimum Hours Required 64

+ Ensembles—must be selected from the following:

MUS 103 Guitar Ensemble	1
MUS 150 Choir	1
MUS 155 Vocal Ensemble	1
MUS 160 Band	1
MUS 171 Woodwind Ensemble	1
MUS 172 Brass Ensemble	1
MUS 173 Percussion Ensemble	1
MUS 174 Keyboard Ensemble	1
MUS 176 Symphonic Wind Ensemble	1
MUS 181 Lab Band	1
MUS 185 Stage Band	1

+ + Applied Music—courses to be selected from any music course numbered from MUS 121 through MUS 143 or MUS 221 through MUS 243.

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.

COMMERCIAL MUSIC -- RECORDING TECHNOLOGY

Cedar Valley only

(Associate Degree)

This program is designed to prepare commercial musicians with additional skills in the field of recording technology. In addition to preparing the student in vocal or instrumental commercial music techniques, training is provided in the basic console recording skills such as microphone selection and placement, mix down techniques, master tape production, studio techniques, trouble-shooting, and session procedures. Emphasis is placed on the specific needs of the commercial musician in the field of recording.

CREDIT HOURS

SEMESTER I

MUS 145	Music Theory I	3
MUS 161	Musicianship I	1
MUS 117	Piano Class I	1
MUS 190	Survey of Recording	2
MUS 191	Survey of Recording Laboratory	1
MUS 192	Music in America	3
MUS 199	Recital	1
MTH 139	Applied Mathematics	3
+ Ensemble		1
+ + Applied Music		1-2
		17-18

SEMESTER II

MUS 146	Music Theory II	3
MUS 162	Musicianship II	1
MUS 118	Piano Class II	1
MUS 180	Audio Production for Voice	2
MUS 197	Studio Technology	2
MUS 198	Studio Technology Laboratory	1
MUS 199	Recital	1
COM 131	Applied Communications or	
ENG 101	Composition I	3
+ Ensemble		1
+ + Applied Music		1-2
		16-17

SEMESTER III

MUS 189	Computerized Music Production I	2
MUS 199	Recital	1
MUS 293	Independent Study or	
MUS 703	Cooperative Work Experience	3
MUS 296	Recording Studio Practices	3
PSY 131	Applied Psychology and Human	
	Relations	3
SC 101	Introduction to Speech Communication	3
+ Ensemble		1
+ + Applied Music		1-2
		17-18

SEMESTER IV

MUS 196	Business of Music	3
MUS 199	Recital	1
MUS 293	Independent Study or	
MUS 713	Cooperative Work Experience	3
MUS 297	Studio Production	3
BUS 105	Introduction to Business	3
+ Ensemble		1
+ + Applied Music		1-2
Elective	Any Non-MUS Course	3
		18-19

Minimum Hours Required 68

+ Ensembles—Must be selected from the following:

MUS 103	Guitar Ensemble	1
MUS 150	Choir	1
MUS 155	Vocal Ensemble	1
MUS 160	Band	1
MUS 171	Woodwind Ensemble	1
MUS 172	Brass Ensemble	1
MUS 173	Percussion Ensemble	1
MUS 174	Keyboard Ensemble	1
MUS 176	Symphonic Wind Ensemble	1
MUS 181	Lab Band	1
MUS 185	Stage Band	1

+ + Applied Music—courses to be selected from any music course numbered from MUS 121 through MUS 143 or MUS 221 through MUS 243.

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.

COMMERCIAL MUSIC – RECORDING TECHNOLOGY CERTIFICATE

Cedar Valley only

(Certificate – Accelerated Program)

This program is designed to prepare commercial musicians with additional skills in the field of recording technology. In addition to preparing the student in vocal or instrumental commercial music techniques, training is provided in the basic console recording skills such as microphone selection and placement, mix down techniques, master tape production, studio techniques, trouble-shooting, and session procedures. Emphasis is placed on the specific needs of the commercial musician in the field of recording.

	CREDIT HOURS
SEMESTER I	
MUS 113 Fundamentals of Music I	3
MUS 190 Survey of Recording	2
MUS 191 Survey of Recording Laboratory	1
MUS 192 Music in America	3
MUS 199 Recital	1
MTH 139 Applied Mathematics	3
	<u>13</u>
SEMESTER II	
MUS 196 Business of Music	3
MUS 197 Studio Technology	2
MUS 198 Studio Technology Laboratory	1
MUS 199 Recital	1
COM 131 Applied Communications or	
ENG 101 Composition I	3
MUS 180 Audio Production for Voice	2
+ Elective	1
	<u>13</u>
SEMESTER III	
MUS 296 Recording Studio Practices	3
	<u>3</u>
SEMESTER IV	
MUS 297 Studio Production	3
	<u>3</u>
Minimum Hours Required	32

+ Elective—must be selected from any music course.

COMMERCIAL MUSIC – RECORDING TECHNOLOGY CERTIFICATE

Cedar Valley only

(Certificate – Balanced Semester Program)

This program is designed to prepare commercial musicians with additional skills in the field of recording technology. In addition to preparing the student in vocal or instrumental commercial music techniques, training is provided in the basic console recording skills such as microphone selection and placement, mix down techniques, master tape production, studio techniques, trouble-shooting, and session procedures. Emphasis is placed on the specific needs of the commercial musician in the field of recording.

	CREDIT HOURS
SEMESTER I	
MUS 190 Survey of Recording	2
MUS 191 Survey of Recording Laboratory	1
MUS 199 Recital	1
MTH 139 Applied Mathematics	3
	<u>7</u>
SEMESTER II	
MUS 113 Fundamentals of Music I	3
MUS 197 Studio Technology	2
MUS 198 Studio Technology Laboratory	1
MUS 199 Recital	1
MUS 180 Audio Production for Voice	2
	<u>9</u>
SEMESTER III	
MUS 192 Music in America	3
MUS 296 Recording Studio Practices	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
	<u>9</u>
SEMESTER IV	
MUS 196 Business of Music	3
MUS 297 Studio Production	3
+ Elective	1
	<u>7</u>
Minimum Hours Required	32

+ Elective—must be selected from any music course.

COMPUTER AIDED DESIGN AND DRAFTING

Eastfield and Mountain View only

(Associate Degree)

This program prepares the student for employment in a wide range of industries as a CAD operator, printed circuit board designer or technician. Information in related fields is provided to enable the student to work effectively with engineers, technologists, architects and professional staff. Enrollment in CAD cooperative work experience courses (co-op) provides students with on-the-job experience while in the program.

	CREDIT HOURS
SEMESTER I	
CAD 135 CAD/Graphic Processes	2
CAD 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	3-4
	15-16
SEMESTER II	
CAD 101 CAD Operations	2
CAD 161 Manufacturing Fundamentals	3
CAD 245 Computer Aided Design	3
+ CAD Course or	
+ + Cooperative Work Experience	3-4
MTH 196 Technical Mathematics II or	
MTH 102 Plane Trigonometry	3
SC 101 Introduction to Speech	
Communication	3
	17-18
SEMESTER III	
+ CAD Course	3
EGR 106 Descriptive Geometry or	
Technical Elective	3
HD 105 Basic Processes of Interpersonal	
Relationships or	
PSY 131 Applied Psychology and Human	
Relations	3
**Elective or	
+ + Cooperative Work Experience	3-4
*Elective	3
	15-16

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.

SEMESTER IV

CAD 246 Advanced CAD-Electronic or	
CAD 248 Advanced CAD-Mechanical or	
CAD 249 Advanced CAD-Architectural	3
+ CAD Course or	
+ + Cooperative Work Experience	3-4
***Elective	4
GVT 202 American Government or	
HST 102 History of the United States	3
Elective Any Non-CAD Course	3-4
	16-18

Minimum Hours Required 63

+ CAD Courses—must be selected from the following:

CAD 136 Civil Design	3
CAD 185 Architectural Design	4
CAD 230 Structural Design	3
CAD 231 Electronic Design	3
CAD 232 CAD Illustration	3
CAD 235 Facilities Management Design	3
CAD 236 Pipe Design	3
CAD 237 Advanced 3-D Illustration	3
CAD 246 Advanced CAD-Electronic	3
CAD 248 Advanced CAD-Mechanical	3
CAD 249 Advanced CAD-Architectural	3
CAD 250 Electromechanical Packaging Design	3
CAD 252 Advanced CAD-Menu Customizing & LISP	3
CAD 253 Geometric Dimensioning and Tolerancing	3
CAD 255 Selected Topics in Drafting	3

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

CAD 704 Cooperative Work Experience	4
CAD 714 Cooperative Work Experience	4
CAD 803 Cooperative Work Experience	3
CAD 813 Cooperative Work Experience	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
ENG 215 Studies in Literature	3
ENG 216 Studies in Literature	3
HUM 101 Introduction to Humanities	3
MUS 104 Music Appreciation	3
PHI 101 Introduction to Philosophy	3
THE 101 Introduction to the Theatre	3
Foreign Language	

**Electives—must be selected from the following:

BPR 177 Blueprint Reading - Mechanical	2
BPR 178 Blueprint Reading - Architectural	2
OFC 176 Keyboarding	1
CIS 101 Introduction to Computer Applications and	
Concepts	4
GA 120 Printing Fundamentals	3

This elective may also be selected from other technical courses approved by the Computer Aided Design & Drafting Department.

***Elective—must be selected from these disciplines: Biology, Chemistry, Geology, Physics and Mathematics.

COMPUTER AIDED DESIGN AND DRAFTING – ELECTRONIC DESIGN OPTION

Eastfield only

(Associate Degree)

This program prepares the student for employment in a wide range of industries as a CAD operator, printer circuit board designer to technician. Information in related fields is provided to enable the student to work effectively with the engineers, technologists, and professional staff. Enrollment in CAD cooperative work experience (co-op) provides students with on-the-job training while in the program.

	CREDIT HOURS
SEMESTER I	
CAD 161 Manufacturing Fundamentals	3
CAD 183 Basic Drafting	4
COM 131 Applied Communications or	
ENG 101 Composition I	3
ET 190 D.C. Circuits and Electrical	
Measurements	4
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
	<u>17</u>

SEMESTER II	
CAD 101 CAD Operations	2
CAD 231 Electronic Design	3
CAD 240 Printed Circuit Design	3
MTH 196 Technical Mathematics II or	
MTH 102 Plane Trigonometry	3
PSY 131 Applied Psychology and Human	
Relations	3
SC 101 Introduction to Speech Communication	3
	<u>17</u>

SEMESTER III	
CAD 135 CAD/Graphic Processes	2
CAD 241 Integrated Circuit Design or	
CAD 243 Advanced Printed Circuit Design	3
CAD 245 Computer Aided Design	3
ET 192 Digital Computer Principles or	
ET 250 Principles of Electronic	
Integrated Circuits	3-4
**Elective	3-4
	<u>14-16</u>

SEMESTER IV	
+ CAD Course	3
+ CAD Course	3
CAD 246 Advanced CAD-Electronic	3
*Elective	3
Elective Any Non-CAD course	3
	<u>15</u>

Minimum Hours Required 63

+ CAD Courses—must be selected from the following:

CAD 232	CAD Illustration	3
CAD 242	Advanced Integrated Circuit Design	3
CAD 247	Applied Printed Circuit Design	3
CAD 249	Advanced CAD - Architectural	3
CAD 250	Sheet Metal Design	3
CAD 252	Advanced CAD-Menu Customizing & LISP	3
CAD 255	Selected Topics in Drafting	3
CAD 704	Cooperative Work Experience	4
CAD 714	Cooperative Work Experience	4
CAD 803	Cooperative Work Experience	3
CAD 813	Cooperative Work Experience	3
EGR 106	Descriptive Geometry	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
ENG 215	Studies in Literature	3
ENG 216	Studies in Literature	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
	Foreign Language	

**Elective—must be selected from the following:

BPR 177	Blueprint Reading - Mechanical	2
BPR 178	Blueprint Reading - Architectural	2
CIS 101	Introduction to Computer Applications and	
	Concepts	4
ET 191	AC Circuits	3
GA 120	Printing Fundamentals	3
OFC 176	Keyboarding	1

This elective may also be selected from other technical courses approved by the Computer Aided Design & Drafting Department.

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.

COMPUTER INFORMATION SYSTEMS – BUSINESS COMPUTER ASSISTANT

El Centro only

(Certificate)

This one-year certificate program is designed to develop skills and knowledge related to the use of personal computers for business. The graduate will be qualified to be a trainee in any number of categories: personal computer operator/software package user, data entry specialist, or information processing assistant. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

	CREDIT HOURS
SEMESTER I	
CIS 101 Introduction to Computer Concepts and Applications	4
BUS 105 Introduction to Business or	3
MGT 136 Principles of Management	(3)
CIS 111 Data Entry Applications and Concepts	3
ENG 101 Composition I	3
CIS 106 Problem Solving with the Computer	4
	<u>17</u>
SEMESTER II	
CIS 160 Data Communications and Operating Systems	3
CIS 121 Text Processing Applications	4
CIS 116 Systems Management/Operations I*	4
CIS 701 Cooperative Work Experience***	1
ACC 131 Bookkeeping I**	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>

Minimum Hours Required 35

*CIS 265, AS/400 Concepts level I, may be substituted.

**ACC 201 may be substituted for ACC 131

***CIS 702, 703 or 704 may be substituted for CIS 701

COMPUTER INFORMATION SYSTEMS – BUSINESS COMPUTER INFORMATION SYSTEMS

Offered at all seven campuses

(Associate Degree)

This option is designed to develop entry-level skills and knowledge in computer information systems. The option includes several business courses found in university degree programs as well as CIS courses which will prepare students for CIS course work at a university. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

Minimum Hours Required 65

+ Elective—Any CIS course including CIS 701, CIS 702, CIS 703, or CIS 704

+ + Elective—must be selected from the following:

ENG 102	Composition II	3
HUM 101	Introduction to the Humanities	3
PHI 103	Critical Thinking	3

+ + + Elective—Any NON-CIS course

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

HST 101	History of the United States	3
GVT 201	American Government	3
PSY 101	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3

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

CIS 121	Text Processing Applications	4
CIS 169	Application Development Tools	4
CIS 170	RPG Programming	3
CIS 172	BASIC Programming	3
CIS 173	Pascal Programming for Business	3
CIS 200	Fundamentals of Networking	3
CIS 210	Assembly Language I	4
CIS 212	C Programming	4
CIS 218	Spreadsheet Applications	4
CIS 228	Database Applications	4
CIS 275	User Documentation and Training	3
CIS 701	Cooperative Work Experience	1
CIS 702	Cooperative Work Experience	2
CIS 703	Cooperative Work Experience	3
CIS 704	Cooperative Work Experience	4
CIS 712	Cooperative Work Experience	2
CIS 713	Cooperative Work Experience	3
CIS 714	Cooperative Work Experience	4

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 212

*ACC 131 and ACC 132 may be substituted for 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.

CREDIT HOURS

SEMESTER I

CIS 101	Introduction to Computer Concepts and Applications	4
BUS 105	Introduction to Business or	3
MGT 136	Principles of Management	(3)
MTH 111	Mathematics for Business and Economics I	3
ENG 101	Composition I	3
CIS 106	Problem Solving with the Computer	4
		17

SEMESTER II

CIS 162	COBOL Programming I	4
MTH 112	Mathematics for Business and Economics II	3
SC 101	Introduction to Speech Communication	3
CIS 160	Data Communications and Operating Systems	3
ACC 201	Principles of Accounting I*	3
		16

SEMESTER III

CIS 164	COBOL Programming II	4
ECO 201	Principles of Economics I	3
ACC 202	Principles of Accounting II	3
+ Elective		3
+ + Elective		3-4
		16-17

SEMESTER IV

CIS 210	Assembly Language I or	4
CIS 212	C Programming	(4)
ECO 202	Principles of Economics II	3
+ + + Elective		3
+ + + + Elective		3
+ + + + + Elective		3-4
		16-17

COMPUTER INFORMATION SYSTEMS – BUSINESS COMPUTER PROGRAMMER

Offered at all seven campuses

(Associate Degree)

This option is intended for the preparation of entry-level computer programmers who will work in an applications setting to support the information processing function. It is designed as a two-year career program to prepare students for direct entry into the work environment. 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. Touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

CREDIT HOURS

SEMESTER I

CIS 101	Introduction to Computer Concepts and Applications	4
BUS 105	Introduction to Business or	3
MGT 136	Principles of Management	(3)
MTH 115	College Mathematics I*	3
ENG 101	Composition I	3
CIS 106	Problem Solving with the Computer	4
		17

SEMESTER II

CIS 160	Data Communications and Operating Systems	3
CIS 162	COBOL Programming I	4
ACC 201	Principles of Accounting I***	3
PSY 131	Applied Psychology and Human Relations**	3
SC 101	Introduction to Speech Communication	3
		16

SEMESTER III

CIS 164	COBOL Programming II	4
CIS 205	Control Language and Operating Environments	4
+ Elective		3-4
+ + Elective		3
+ + + Elective		3-4
		17-19

SEMESTER IV

CIS 225	Systems Analysis and Design	4
CIS 258	On-Line Applications	4
CIS 254	Data Base Systems	4
+ + + + Elective		3
+ + + + + Elective		3-4
		18-19

Minimum Hours Required 68

+ Elective—Any CIS or CS course including CIS 701, CIS 702, CIS 703, CIS 704

+ + Elective—must be selected from the following:

ENG 102	Composition II	3
HUM 101	Introduction to the Humanities	3
PHI 103	Critical Thinking	3

+ + + Elective—Any CIS course or ACC 202

+ + + + Elective—Any NON-CIS course

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

CIS 121	Text Processing Applications	4
CIS 169	Application Development Tools	4
CIS 170	RPG Programming	3
CIS 172	BASIC Programming	3
CIS 173	Pascal Programming for Business	3
CIS 200	Fundamentals of Networking	3
CIS 210	Assembly Language I	4
CIS 212	C Programming	4
CIS 218	Spreadsheet Applications	4
CIS 228	Database Applications	4
CIS 275	User Documentation and Training	3
CIS 701	Cooperative Work Experience	1
CIS 702	Cooperative Work Experience	2
CIS 703	Cooperative Work Experience	3
CIS 704	Cooperative Work Experience	4
CIS 712	Cooperative Work Experience	2
CIS 713	Cooperative Work Experience	3
CIS 714	Cooperative Work Experience	4

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 212

*MTH 111 or MTH 130 may be substituted.

**PSY 101 may be substituted.

***ACC 131 and ACC 132 may be substituted for 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.

COMPUTER INFORMATION SYSTEMS -- COMPUTER CENTER SPECIALIST

El Centro only

(Associate Degree)[†]

This option is intended to prepare students to function in programmer/analyst/operator positions within a mid-sized computer center. It may also serve as a career path for those completing the operations certificate program, as all courses within that curriculum can be applied to the first year of this curriculum. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

	CREDIT HOURS
SEMESTER I	
CIS 101 Introduction to Computer Concepts and Applications	4
CIS 116 Systems Management/Operations I*	4
BUS 105 Introduction to Business or	3
MGT 136 Principles of Management	(3)
ENG 101 Composition I	3
CIS 106 Problem Solving with the Computer	4
	<u>18</u>
SEMESTER II	
CIS 126 Systems Management/Operations II**	4
CIS 205 Control Language and Operating Environments***	4
SC 101 Introduction to Speech Communication	3
CIS 160 Data Communications and Operating Systems	3
ACC 131 Bookkeeping I****	3
	<u>17</u>
SEMESTER III	
CIS 170 RPG Programming or	3
CIS 162 COBOL Programming I	(4)
MTH 115 College Mathematics I*****	3
CIS 121 Text Processing Applications	4
+ Elective	3
+ + Elective	3-4
	<u>16-18</u>
SEMESTER IV	
CIS 256 Computer Center Management	3
PSY 131 Applied Psychology and Human Relations*****	3
CIS 221 PC Operating Systems and Utilities	4
+ + + Elective	3
+ + + + Elective	3-4
	<u>16-17</u>

Minimum Hours Required 68

+ Elective--Any CIS or CS course including CIS 701, CIS 702, CIS 703, or CIS 704

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

ENG 102	Composition II	3
HUM 101	Introduction to the Humanities	3
PHI 103	Critical Thinking	3

+ + + Elective--Any NON-CIS course

+ + + + Elective--Any AS/400 course

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 212

*CIS 265, AS/400 Concepts Level I, may be substituted

**CIS 265, AS/400 Concepts Level II, may be substituted.

***CIS 265, CL Programming, may be substituted.

****ACC 201 may be substituted.

*****MTH 111 or MTH 130 may be substituted.

*****PSY 101 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.

COMPUTER INFORMATION SYSTEMS -- COMPUTER OPERATIONS TECHNICIAN

El Centro only

(Certificate)

This one-year certificate is designed to develop skills and knowledge to meet the demands of computer operations in any mainframe business data processing environment. The graduate will be qualified to be an operator-trainee in any of a number of categories: RJE terminal operator, microcomputer operator, mini computer operator, I/O or peripheral device operator, or junior computer operator. A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

	CREDIT HOURS
SEMESTER I	
CIS 101 Introduction to Computer Concepts and Applications	4
CIS 106 Problem Solving with the Computer	4
CIS 116 Systems Management/Operations I* . . .	4
BUS 105 Introduction to Business or	3
MGT 136 Principles of Management	(3)
ENG 101 Composition I	3
	<u>18</u>
SEMESTER II	
CIS 126 Systems Management/Operations II** .4	
CIS 205 Control Language and Operating Environments***	4
CIS 160 Data Communications and Operating Systems	3
CIS 701 Cooperative Work Experience***** . . .	1
SC 101 Introduction to Speech Communication	3
ACC 131 Bookkeeping I****	3
	<u>18</u>
Minimum Hours Required	36

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

CIS 172 or CS 122
CIS 210 or CS 212

*CIS 265, AS/400 Concepts Level I, may be substituted.
**CIS 265, AS/400 Concepts Level II, may be substituted.
***CIS 265, CL Programming, may be substituted.
****ACC 201 may be substituted.
*****CIS 702, 703 or 704 may be substituted.

COMPUTER INFORMATION SYSTEMS – LOCAL AREA NETWORK ADMINISTRATOR

Eastfield and North Lake only

(Associate Degree)

This program will provide training and education for individuals interested in developing their knowledge and skills as a local area network administrator. The program emphasizes practical skills required to perform duties in the work environment under the supervision of an experienced local area network administrator. The objectives of the program are to provide instruction that presents the fundamentals of computer networking, an in-depth look at fundamentals of designing and implementing computer-related local area networks, local area network software, network and hardware supply to local area networks, and instruction that will help the student build his background in the area of operation and management in the local area network environment. Additionally, practical experience and skills will be acquired through the student's participation in cooperative education work experiences. This course of study will allow the student to get work-related exposure for applying skills as a local area network administrator.

	CREDIT HOURS
SEMESTER I	
CIS 101 Introduction to Computer Concepts and Applications	4
ENG 101 Composition I	3
MTH 111 Mathematics for Business and Economics I	3
PSY 131 Applied Psychology and Human Relations or	3
PSY 101 Introduction to Psychology	(3)
CIS 106 Problem Solving with the Computer	4
	<u>17</u>
SEMESTER II	
CIS 121 Text Processing Applications	4
CIS 160 Data Communications and Operating Systems	3
SC 101 Introduction to Speech Communication	3
MGT 136 Principles of Management	3
+ Elective	3
	<u>16</u>
SEMESTER III	
CIS 200 Fundamentals of Networking	3
CIS 207 Network Software	4
CIS 221 PC Operating Systems and Utilities	4
+ + Elective	3-4
+ + + Electives	3-4
	<u>17-19</u>

SEMESTER IV

CIS 224 PC Hardware	3
CIS 275 User Documentation and Training	3
CIS 277 Network Hardware	4
CIS 287 Network Problems and Applications	4
+ + + Elective	3
	<u>17</u>

Minimum Hours Required 67

+ Elective--must be selected from the following:

ENG 102 Composition II	3
HUM 101 Introduction to the Humanities	3
PHI 103 Critical Thinking	3

+ + Elective--Any CIS course including, CIS 701, CIS 702, CIS 703, or CIS 704

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

CIS 162 COBOL Programming I	4
CIS 169 Application Development Tools	4
CIS 172 BASIC Programming	3
CIS 218 Spreadsheet Applications	4
CIS 228 Database Applications	4
CIS 272 Advanced BASIC Techniques	3
CIS 297 Unix Operating System	4
CIS 702 Cooperative Work Experience	2
CIS 703 Cooperative Work Experience	3
CIS 704 Cooperative Work Experience	4
CIS 712 Cooperative Work Experience	2
CIS 713 Cooperative Work Experience	3
CIS 714 Cooperative Work Experience	4
ENG 210 Technical Writing	3
MTH 202 Introduction to Statistics	3

+ + + + Elective--Any NON-CIS course

Students may obtain credit toward a degree for only one of each pair of courses below:

CIS 172 or CS 122
CIS 210 or CS 212

Students who wish to pursue a particular interest in connection with networking should select their elective courses accordingly. For example, a student who needs to build his/her skills in the area of documentation should select ENG 102, ENG 210, CIS 703, or CIS 704. The cooperative work experience should be selected to include documentation. A student who has an interest related to network use of applications should select CIS 218, CIS 228, or appropriate work experience. A LAN student interested in programming skills should select CIS 162, CIS 169, CIS 172 or CIS 272.

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.

COMPUTER INFORMATION SYSTEMS -- LAN SERVER OPERATOR

Eastfield and North Lake only

(Certificate)

LAN server operators are prepared to perform the daily and routine tasks associated with maintaining a local area network server. These operators can set up new users on the system, create directories, perform daily backups of the server hard disk, scan for computer virus infections, manipulate printer operations, check for security problems, install applications on the server, and assist users in learning how to log in and out of the network and perform other routine user tasks on the network.

	CREDIT HOURS
SUMMER SEMESTER	
CIS 101 Introduction to Computer Concepts and Applications	4
ENG 101 Composition I	3
	<u>7</u>
FALL SEMESTER	
SC 101 Introduction to Speech Communication	3
CIS 106 Problem Solving with the Computer	4
CIS 160 Data Communications and Operating Systems	3
CIS 121 Text Processing Applications	4
	<u>14</u>
SPRING SEMESTER	
CIS 200 Fundamentals of Networking	3
CIS 221 PC Operating Systems and Utilities	4
CIS 207 Network Software	4
CIS 275 User Documentation and Training	3
	<u>14</u>
Minimum Hours Required	35

Students who are not interested in completing the two-year program in Local Area Network Administrator have the option of completing in one year the certificate program for LAN Server Operator. All ten of the courses required for the LAN Server Operator certificate will apply if the student subsequently chooses to continue work on the two-year program in LAN Administrator.

COMPUTER INFORMATION SYSTEMS – PERSONAL COMPUTER SUPPORT

Eastfield, El Centro, Mountain View, and Richland only

(Associate Degree)

This program includes education/training to qualify students to provide support for personal computer users; to trouble-shoot software and hardware problems, implementing corrections where possible; to evaluate new software and hardware, matching company standards to product specifics; to install hardware and software, including equipment assembly and diagnostics; and to assist in the development of training courses, providing training for users.

A touch typing speed of 20 words per minute is suggested for most CIS courses with a lab component. Students are advised to develop this proficiency.

CREDIT HOURS

SEMESTER I

CIS 101	Introduction to Computer Concepts and Applications	4
BUS 105	Introduction to Business or	3
MGT 136	Principles of Management	(3)
ENG 101	Composition I	3
MTH 115	College Mathematics I*	3
CIS 106	Problem Solving with the Computer	4
		17

SEMESTER II

CIS 121	Text Processing Applications	4
CIS 160	Data Communications and Operating Systems	3
ACC 131	Bookkeeping**	3
SC 101	Introduction to Speech Communication	3
CIS 218	Spreadsheet Applications	4
		16

SEMESTER III

PSY 131	Applied Psychology and Human Relations***	3
CIS 221	PC Operating Systems and Utilities	4
CIS 224	PC Hardware	3
+ Elective		3
+ + Elective		3-4
		16-17

SEMESTER IV

CIS 228	Database Applications	4
CIS 275	User Documentation and Training	3
CIS 281	Applied Studies	3
+ + + Elective		3
+ + + + Elective		3-4
		16-17

Minimum Hours Required 65

+ Elective to be selected from the following:

ENG 102	Composition II	3
HUM 101	Introduction to Humanities	3
PHI 103	Critical Thinking	3

+ + Elective--Any CIS course including CIS 701, CIS 702, CIS 703, or CIS 704

+ + + Electives--Any NON-CIS Course

+ + + + Electives--Any PC programming language

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

CIS 172 or CS 122
CIS 210 or CS 212

*Mathematics 111 or 130 may be substituted.

**ACC 201 may be substituted.

***PSY 101 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.

COMPUTER INTEGRATED
MANUFACTURING – DESIGN FOR
MANUFACTURING OPTION

Richland only
(Associate Degree)

In this option the emphasis is on the design stage of computer integrated manufacturing production cycle which includes automated drafting, geometric modeling, design, analysis, presentation, evaluation, and prototyping. This option prepares students for technician level employment in the field of computer-aided design. Both theory and application are provided by courses in computer-aided design, mechanics, electronics, fluid power, manufacturing processes and design for production.

	CREDIT HOURS
SEMESTER I	
CIM 101 Introduction to CAD	3
CIM 121 Introduction to Quality Control	2
CIM 140 Fluid Power Systems	4
CIM 188 Manufacturing Processes	2
ET 190 DC Circuits & Electrical Measurements	4
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
	18
SEMESTER II	
CAD 253 Geometric Dimensioning and Tolerancing or CIM 291 Special Topics in CIM	3
CIM 110 CAD for Production	4
COM 131 Applied Communications or ENG 101 Composition I	3
ET 191 AC Circuits	4
MTH 196 Technical Mathematics II or MTH 102 Plane Trigonometry	3
	17
SEMESTER III	
CIM 232 Applied Mechanics	4
CIM 254 Advanced Computer-Aided Design or CIM 704 Cooperative Work Experience	4
MTH 297 Technical Mathematics III or MTH 124 Calculus I	3
PHY 111 Introductory General Physics	4
Elective Humanities/Fine Arts	3
	17

SEMESTER IV	
CIM 252 Design for Manufacturing	4
PHY 112 Introductory General Physics	4
SC 101 Introduction to Speech Communication	3
CIM 258 CAD/CAM Interfacing	2
Elective Social/Behavioral Science	3
Elective Any Non-CIM Course	3
	19

Minimum Hours Required 71

COMPUTER INTEGRATED
MANUFACTURING – DESIGN FOR
MANUFACTURING CERTIFICATE

Richland only
(Certificate)

This certificate provides the student with basic skills development in the area of computer aided design. All courses required for the one-year certificate are applicable to the Computer Integrated Manufacturing--Design for Manufacturing degree.

	CREDIT HOURS
SEMESTER I	
CIM 101 Introduction to CAD	3
CIM 110 CAD for Production	4
CIM 121 Introduction to Quality Control	2
CIM 140 Fluid Power Systems	4
CIM 188 Manufacturing Processes	2
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
	18
SEMESTER II	
CAD 253 Geometric Dimensioning and Tolerancing	3
CIM 252 Design for Manufacturing	4
CIM 254 Advanced Computer Aided Design	4
CIM 258 CAD/CAM Interfacing	2
MTH 196 Technical Mathematics II or MTH 102 Plane Trigonometry	3
	16

Minimum Hours Required 34

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.

COMPUTER INTEGRATED MANUFACTURING – ROBOTICS AND AUTOMATED SYSTEMS OPTION

Richland only

(Associate Degree)

The Robotics and Automated Systems option prepares students for technician level employment in the high-tech automated manufacturing environment. Training includes electronics, computer controls, robotics, fluid power systems, CAD/CAM, CNC machine tools, and the integration of these technologies into a total automated manufacturing system.

CREDIT HOURS

SEMESTER I

CIM 101	Introduction to CAD	3
CIM 121	Introduction to Quality Control	2
CIM 140	Fluid Power Systems	4
CIM 188	Manufacturing Processes	2
ET 190	DC Circuits and Electrical Measurements	4
MTH 195	Technical Mathematics I or	
MTH 101	College Algebra	3

18

SEMESTER II

COM 131	Applied Communications or	
ENG 101	Composition I	3
ECT 143	Technical Programming	4
ET 191	AC Circuits	4
CIM 243	Robotics I	3
MTH 196	Technical Mathematics II or	
MTH 102	Plane Trigonometry	3

17

SEMESTER III

PHY 111	Introductory General Physics	4
CIM 247	Robotics II	3
SC 101	Introduction to Speech Communication	3
Elective	Humanities/Fine Arts	3
+ Elective	Technical Elective	2-4

15-17

SEMESTER IV

PHY 112	Introductory General Physics	4
CIM 270	Computer Integrated Manufacturing	4
MTH 297	Technical Mathematics III or	
MTH 124	Calculus I	3-5
Elective	Social/Behavioral Science	3
Elective	Any Non-CIM Course	3

17-19

Minimum Hours Required 67

+ Technical Elective—must be selected from the following:

CIM 258	CAD/CAM Interfacing	2
CIM 291	Special Topics In CIM	3
CIM 703	Cooperative Work Experience	3
ET 193	Active Devices	4

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.

COMPUTER INTEGRATED MANUFACTURING – ROBOTICS

Richland only

(Certificate)

This one-year program provides the student with the basic skills needed in the industrial robotics industry. All of the courses for the one-year certificate are applicable to the Computer Integrated Manufacturing Associate Degree, Robotics and Automated Systems Option.

	CREDIT HOURS
SEMESTER I	
CIM 101 Introduction to CAD	3
CIM 140 Fluid Power Systems	4
CIM 243 Robotics I	3
ET 190 DC Circuits and Electrical Measurements	4
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
	<u>17</u>
SEMESTER II	
CIM 188 Manufacturing Processes	2
CIM 247 Robotics II	3
ECT 143 Technical Programming	4
ET 191 AC Circuits	4
MTH 196 Technical Mathematics II or MTH 102 Plane Trigonometry	3
	<u>16</u>
Minimum Hours Required	33

CONSTRUCTION MANAGEMENT AND TECHNOLOGY

North Lake only

(Associate Degree)

Construction Management is a relatively new discipline within the environmental design professions yet, virtually every commercial building project in the United States today--from the smallest retail "strip" center to the tallest skyscraper--requires construction leadership that is knowledgeable of labor; construction materials, installation methods and equipment; contract administration, construction scheduling, cost estimating and much more.

The Construction Management Curriculum at North Lake College prepares the student with the essential tools for a managerial career in construction or related industry endeavors. Such career positions could include project manager, field engineer, scheduler, specifier, sales representative, owner/develop liaison, estimator, purchaser, expeditor, inspector.

This program is fully accredited by the American Council for Construction Education. It is the only two-year accredited construction program in the State of Texas, and only the second to be accredited in the U.S.

Should the student decide to continue formal educational studies, this program articulates with major universities. Contact the CMT program coordinator for details.

CREDIT HOURS

SEMESTER I

CMT 121	Construction Materials, Methods and Equipment I	3
CMT 123	Construction Graphics	4
CMT 133	Construction Industry	2
CMT 235	Building Codes	3
MTH 195	Technical Mathematics I or	
MTH 101	College Algebra	3
CMT 232	Safety Management	3
		<u>18</u>

SEMESTER II

CMT 122	Construction Materials, Methods and Equipment II	3
CMT 124	Electrical and Mechanical Equipment for Buildings	4
CMT 235	Building Codes	3
CIS 101	Introduction to Computer Applications and Concepts	4
ENG 101	Composition I	3
MTH 196	Technical Mathematics II or	
MTH 102	Plane Trigonometry	3
		<u>20</u>

SEMESTER III

CMT 136	Surveying and Measurements	4
CMT 138	Construction Management I	4
CMT 231	Construction Contracts and Specifications	3
EGR 290	Mechanics of Structure	3
SC 101	Introduction to Speech Communication	3
		<u>17</u>

SEMESTER IV

CMT 230	Quality Control and Cost Control	4
CMT 233	Commercial Estimating	4
CMT 237	Soils, Foundations, and Reinforced Concrete	4
CMT 238	Construction Management II	4
+ Elective		3-4
		<u>19-20</u>

Minimum Hours Required 71

+ Electives--must be selected from the following:

ANT 100	Introduction to Anthropology	3
ART 104	Art Appreciation	3
GVT 201	American Government	3
HST 101	History of the United States or	
HST 102	History of the United States	3
HST 105	Western Civilization or	
HST 106	Western Civilization	3
HUM 101	Introduction to the Humanities	3
PHI 101	Introduction to Philosophy	3
SPA 101	Beginning Spanish	4

CONSTRUCTION MANAGEMENT & TECHNOLOGY-CONSTRUCTION SPECIFIER

North Lake only

(Associate Degree)

The Construction Specifier Option of the Construction and Management Technology Program is an in-depth study of written construction communications. Topics covered include the organization and preparation, development, implementation, modification and administration of contracts and specifications, as well as the ramifications of non-compliance. Emphasis is placed on collecting, organizing, and applying information; researching products and systems; developing rough and final drafts of each type of specification. The latest in computer applications and automated editing procedures are utilized with hands on experience acquired. Advanced computer applications for electronic media, text manipulation, and macro utilization are studied. Administrative skills necessary for a specification writer are studied including managing a technical library, maintaining data bases, performing project cost budgeting, implementing a continuing education/quality assurance program, assisting in the bidding and construction phases, and archiving of documents.

This program option has been developed in conjunction with the Dallas Chapter of the Construction Specification Institute. Upon satisfactory completion of this program and work experience in this field of study, a student will be eligible to take the CSI certification test, Certified Construction Specifier (CCS).

This program is fully accredited by the American Council for Construction Education.

Should the student decide to continue formal educational studies, this program articulates with major universities. Contact the CMT program coordinator for details.

	CREDIT HOURS
SEMESTER I	
CMT 121 Construction Materials, Methods and Equipment I	3
CMT 123 Construction Graphics or CAD 185 Architectural Drafting	4
CMT 133 Construction Industry	2
CMT 138 Construction Management I	4
ENG 101 Composition I	3
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
	<u>19</u>

SEMESTER II

CMT 122 Construction Materials, Methods and Equipment II	3
CMT 124 Electrical and Mechanical Equipment for Buildings	4
ENG 102 Composition II	3
CIS 101 Introduction to Computer Applications and Concepts	4
MTH 196 Technical Mathematics II or MTH 102 Plane Trigonometry	3
	<u>17</u>

SEMESTER III

CMT 231 Construction Contracts and Specifications	3
CMT 235 Building Codes	3
CMT 239 Introduction to Construction Specification Writing	3
CIS 119 Textbook Processing Applications	3
ENG 210 Technical Writing	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>

SEMESTER IV

CMT 230 Quality Control and Cost Control	4
CMT 237 Soils, Foundations, and Reinforced Concrete	4
CMT 249 Advanced Construction Specification Writing	3
CMT 279 Specification Administration	3
+ Elective	3
	<u>17</u>

Minimum Hours Required 71

+ Electives—Any NON-CMT course.

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.

CONSTRUCTION TECHNOLOGY

North Lake only

(Associate Degree)

This program is designed to develop the skills and knowledge necessary so that a graduate may advance in career paths appropriate to a person's own particular interests and abilities, in either the field of residential or commercial building or contracting. In addition to the specific technical skills and knowledge required to build buildings and supervise employees on a construction job, the graduate will have covered skills in other areas such as planning and organization, problem solving and decision making, related communication, and business and human relations.

CREDIT HOURS

SEMESTER I

CT 110	Construction I - Systems and Materials	3
CT 115	Blueprint Reading/Specifications	3
CT 117	Construction Safety	1
MTH 195	Technical Mathematics I or	
MTH 130	Business Mathematics	3
SC 101	Introduction to Speech Communication	3
+ Electives	.....	3
		<u>16</u>

SEMESTER II

CT 111	Construction II - Mechanical, Electrical, and Plumbing Systems	3
COM 101	Communications or	
ENG 101	Composition I	3
PSY 131	Applied Psychology and Human Relations	3
+ Electives	.....	6
		<u>15</u>

SEMESTER III

CT 135	Engineering Principles and Practices	3
+ Electives	.....	9-10
Elective	Any Non-CT Course	3
		<u>15-16</u>

SEMESTER IV

CT 118	Codes/Inspection I	3
BUS 105	Introduction to Business or	
+ + Electives	.....	3
+ Electives	.....	9-10
		<u>15-16</u>

Minimum Hours Required 61

+ Electives must be selected from the following:

Any CT course (including CT 700 level Cooperative Work Experience*)

+ + Electives—must be selected from the following:

ART 104	Art Appreciation	3
ART 105	Survey of Art History/	3
ART 106	Survey of Art History	3
ART 110	Design I	3
ART 111	Design II	3
HUM 101	Introduction to 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

*Cooperative Work Experience may only be taken in Semester II, III, or IV.

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.

CONSTRUCTION TECHNOLOGY

North Lake only

(Certificate)

This is a one-year certificate that provides the student with the technical knowledge and hands-on skills required to work in one of two areas: residential or commercial carpentry. In addition, the student will cover job planning and materials estimating, human-relation skills and the economics of the construction industry. After completion of the program, students will be qualified to enter the construction field as a carpenter.

	CREDIT HOURS
SEMESTER I	
CT 110 Construction I - Systems and Materials	3
CT 115 Blueprint Reading/Specifications	3
CT 117 Construction Safety	1
CT 120 Foundations I	3
MTH 139 Applied Math	3
PSY 131 Applied Psychology and Human Relations	3
	<u>16</u>
SEMESTER II	
CT 111 Construction II - Mechanical, Electrical, and Plumbing Systems or	
CT 212 Commercial Systems, Materials and Equipment	3
CT 125 Building Construction I	3
CT 220 Foundations II or	
CT 225 Building Construction II	3
CT 130 Finish Systems I or	
CT 230 Finish Systems II	3
+ Electives	3-4
	<u>15-16</u>
Minimum Hours Required	31

+ Electives must be selected from the following:

Any CT course (including CT 700 level Cooperative Work Experience*).

*Cooperative Work Experience may only be taken in Semester II, III, or IV.

CRIMINAL JUSTICE

El Centro only

(Associate Degree)

The curriculum is designed for those with Criminal Justice backgrounds as well as for recent high school graduates interested in preparing for employment in the fields of law enforcement, corrections, probations and paroles or private security.

	CREDIT HOURS
SEMESTER I	
CJ 130 Fundamentals of Criminal Law	3
CJ 140 Introduction to Criminal Justice	3
ENG 101 Composition I	3
PSY 101 Introduction to Psychology	3
MTH 101 College Algebra or	
MTH 115 College Mathematics I	3
	<u>15</u>
SEMESTER II	
CJ 132 Courts and Criminal Procedure	3
CJ 139 Crime in America	3
ENG 102 Composition II	3
SC 101 Introduction to Speech	
Communication	3
SOC 101 Introduction to Sociology	3
	<u>15</u>
SUMMER SESSION	
+ + + Electives	6
	<u>6</u>
SEMESTER III	
GVT 201 American Government	3
+ Elective	3
+ + Required Support Courses	6-7
Elective Any Non-CJ Course	3
	<u>15-16</u>
SEMESTER IV	
PSY 205 Psychology of Personality or	
HD 105 Basic Processes of Interpersonal	
Relationships or	
SOC 102 Social Problems	3
+ + Required Support Course	3-4
+ + + Criminal Justice Elective	3-4
	<u>9-11</u>
Minimum Hours Required	60

+ Electives—must be selected from the following:

HST 101	History of the United States	3
HUM 101	Introduction to the Humanities	3
THE 101	Introduction to the Theatre	3

+ + Required Support Courses—must be chosen from the following:

CJ 240	Criminal Investigation	3
CJ 247	Legal Aspects of Law Enforcement	3
CJ 248	Police Systems and Practices	3
CJ 703	Cooperative Work Experience	3
CJ 704	Cooperative Work Experience	4
CJ 713	Cooperative Work Experience	3
CJ 714	Cooperative Work Experience	4
SPA 101	Beginning Spanish	4

+ + + Criminal Justice Electives—must be chosen from the following:

CJ 242	Juvenile Procedures	3
CJ 250	Correctional Systems and Practices	3
CJ 251	Community Resources in Corrections	3
SPA 102	Beginning Spanish	4

To be taken only after completing thirty semester hours of approved academic courses, to include fifteen hours of the transfer curriculum in Criminal Justice:

CJ 148	Texas Peace Officers Law	3
CJ 150	Texas Peace Officers Procedures	3
CJ 232	Texas Peace Officers Skills	3

A student enrolling in the Criminal Justice program should meet the Texas Commission on Law Enforcement Officer Standards and Education Requirements for minimum standards if you plan to seek employment in the law enforcement field. Licensing: (a) not currently on probation for any criminal offense; (b) not convicted of a Class B misdemeanor in the last six (6) months, or a Class A misdemeanor in the last twelve (12) months, or DWI or DWD in the last two (2) years; (c) never been convicted of a felony.

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.

EDUCATIONAL PERSONNEL

Richland only

(Associate Degree)

This program is designed to prepare educational personnel in a wide range of competencies needed for effective roles in public and nonpublic schools. A student can take courses required for the one year Educational Assistant Certificate and continue in the program to receive the two year Associate in Applied Sciences Degree.

Educational personnel are employed under job titles such as teacher aide, assistant teacher, library assistant, P.E. aide, study hall teacher, tutor, tutoring coordinator, youth worker, special education aides, etc. Individuals working with handicapped children have found this program to be especially beneficial.

	CREDIT HOURS
SEMESTER I	
EP 131 Introduction to Educational Processes I	3
EP 135 Arts and Crafts	3
SC 101 Introduction to Speech Communication	3
Elective Any Non-EP Course	3
HST 101 History of the United States or	
+ Elective Social/Behavioral Science	3
	<u>15</u>
SEMESTER II	
EP 129 Language Skills for Educational Personnel	3
EP 136 Principles and Practices of Multi-Cultural Communications	3
EP 210 Computer Instruction for Educators	3
ENG 101 Composition I	3
HST 102 History of the United States or	
Elective	3
	<u>15</u>
SEMESTER III	
EP 249 The Exceptional Child	3
EP 702 Cooperative Work Experience* or (2)	
EP 703 Cooperative Work Experience* or (3)	
EP 704 Cooperative Work Experience	4
ENG 102 Composition II	3
GVT 201 American Government or	
Elective	3
+ + Elective Humanities/Fine Arts	3
	<u>14-16</u>

SEMESTER IV

EP 712 Cooperative Work Experience* or (2)	
EP 713 Cooperative Work Experience* or (3)	
EP 714 Cooperative Work Experience	4
GVT 202 American Government or	
Elective	3
MTH 101 College Algebra or	
MTH 117 Fundamental Concepts of Mathematics for Elementary Teachers	3
+ + + Elective	4-6
	<u>14-16</u>

*If less than 4 hours of Cooperative Work Experience are taken, student must take additional electives to meet the minimum hours required.

Minimum Hours Required 60

Electives--should be selected in consultation with the Educational Personnel Program Coordinator.

+ Elective--must be selected from the following:

PSY 101 Introduction to Psychology	3
PSY 201 Developmental Psychology	3
SOC 101 Introduction to Sociology	3
SOC 102 Social Problems	3
SOC 204 American Minorities	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 101 Introduction to Philosophy	3
THE 101 Introduction to the Theatre	3

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

AST 101 Descriptive Astronomy	3
AST 102 General Astronomy	3
BIO 115 Biological Science	4
BIO 116 Biological Science	4
CHM 115 Chemical Sciences	4
CHM 116 Chemical Sciences	4
OFC 172 Beginning Typing	3
OFC 173 Intermediate Typing	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.

EDUCATIONAL PERSONNEL -- BILINGUAL/ESL OPTION

Richland only

(Associate Degree)

The Bilingual/ESL Option in the Educational Personnel Program is designed to prepare the student to assist in the instructional development of children who have a limited English proficiency.

The Associate in Applied Sciences Degree is awarded for successful completion of at least 64 credit hours as outlined.

	CREDIT HOURS
SEMESTER I	
EP 131 Introduction to Educational Processes I	3
EP 136 Principles & Practices of Multicultural Communications	3
ENG 101 Composition I	3
HST 101 History of the United States	3
SPA 101 Beginning Spanish	4
	<u>16</u>
SEMESTER II	
EP 140 Topics in Child Language Development	3
ENG 102 Composition II	3
HST 102 History of the United States	3
MTH 117 Fundamental Concepts of Mathematics for Elementary Teachers or	
MTH 101 College Algebra	3
SPA 102 Beginning Spanish	4
	<u>16</u>
SEMESTER III	
EP 143 Bilingual Education: Philosophy, Techniques, Materials	3
EP 210 Computer Instruction for Educators	3
PSY 101 Introduction to Psychology	3
SC 101 Introduction to Speech Communication	3
+ Elective Humanities/Fine Arts	3
Elective Any Non-EP Course	3
	<u>18</u>

SEMESTER IV

EP 241 Techniques for Teaching English to Non-Native Speakers	3
EP 249 Exceptional Child	3
EP 702 Cooperative Work Experience or	(2)
EP 703 Cooperative Work Experience or	(3)
EP 704 Cooperative Work Experience	4
GVT 201 American Government	3
+ + Elective	3-4
	<u>14-17</u>

Minimum Hours Required 64

+ Elective--must be selected from the following:

ART 104 Art Appreciation	3
HUM 101 Introduction to the Humanities	3
LS 102 College Library Research Methods and Materials ..	3
MUS 104 Music Appreciation	3

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

BUS 105 Introduction to Business	3
BIO 101 General Biology or	
BIO 115 Biological Science	4
OFC 172 Beginning Typing	3
PSC 118 Physical Science	4

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.

EDUCATIONAL PERSONNEL -- EDUCATIONAL ASSISTANT

Richland only

(Certificate)

	CREDIT HOURS
SEMESTER I	
EP 131 Introduction to Educational Processes I	3
EP 135 Arts and Crafts	3
SC 101 Introduction to Speech Communication or	
MTH 101 College Algebra or	
MTH 117 Fundamental Concepts of Mathematics for Elementary Teachers	3
+ Technical Electives	6
	<u>15</u>
SEMESTER II	
EP 129 Language Skills for Educational Personnel	3
EP 136 Principles and Practices of Multicultural Communications	3
EP 249 The Exceptional Child	3
ENG 101 Composition I	3
+ Technical Electives	3
	<u>15</u>
Minimum Hours Required	30

+ Technical Electives--must be selected from the following:

COM 131	Applied Communications	3
EP 133	Introduction to Educational Processes II	3
EP 134	Introduction to Media	3
EP 210	Computer Instruction for Educators	3
EP 245	Diversified Studies	1
EP 246	Diversified Studies	2
EP 247	Diversified Studies	3
EP 702	Cooperative Work Experience	2
EP 703	Cooperative Work Experience	3
EP 704	Cooperative Work Experience	4
EP 712	Cooperative Work Experience	2
EP 713	Cooperative Work Experience	3
EP 714	Cooperative Work Experience	4
ENG 101	Composition I	3
ENG 102	Composition II	3
ENG (200 Level Literature Course)		3
HD 104	Educational and Career Planning	3
HD 105	Basic Processes of Interpersonal Relationships	3
HD 107	Developing Leadership Behavior	3
LS 102	College Library Research Methods and Materials	3
MTH 117	Fundamental Concepts of Mathematics for Elementary Teachers or Mathematics Elective	3
OFC 172	Beginning Typing	3
OFC 173	Intermediate Typing	3
PEH 101	Fundamentals of Health	3
PEH 144	Introduction to Physical Education	3
PEH 257	Advanced First Aid and Emergency Care	3
PSY 101	Introduction to Psychology	3
PSY 201	Developmental Psychology	3
SOC 101	Introduction to Sociology	3
SOC 102	Social Problems	3
SOC 203	Marriage and Family	3
SOC 204	American Minorities	3
SC 105	Fundamentals of Public Speaking	3
ITP 141	Beginning Sign Language	4
ITP 143	Intermediate Sign Language	4

Art or music as appropriate and approved by EP instructor. Other courses occupationally appropriate and approved by the EP instructor.

ELECTRICAL TECHNOLOGY

North Lake only

(Associate Degree)

The Electrical Technology program prepares the student for career opportunities by developing technical knowledge and practical skills necessary to enter or advance in the electrical technology field.

Students wishing to earn an Associate in Applied Sciences Degree with a major in Electrical Technology must complete all of the courses listed below.

	CREDIT HOURS
SEMESTER I	
ELE 106 Fundamentals of Electricity	4
ELE 107 Electrical Transformers	4
ELE 108 General Electrical Codes	2
MTH 195 Technical Mathematics I	3
SC 101 Introduction to Speech Communication	3
	16
SEMESTER II	
ELE 115 Low Voltage Circuits	3
ELE 116 General Electrical Wiring	3
ELE 117 General Electrical Planning	4
ELE 118 Commercial Codes	2
COM 131 Applied Communications	3
	15
SEMESTER III	
ELE 205 Commercial Wiring	3
ELE 206 Commercial Planning	4
ELE 207 Industrial Planning	2
ELE 208 Industrial Codes	2
ELE 703 Cooperative Work Experience or	3
ELE 704 Cooperative Work Experience	(4)
HUM 101 Introduction to Humanities	3
	17-18
SEMESTER IV	
ELE 213 Electrical Motor Fundamentals	2
ELE 214 Solid State Controls	3
ELE 216 Motor Controls	3
ELE 218 Electrical Design	3
PSY 131 Applied Psychology and Human Relations	3
Elective Any Non-ELE Course	3
	17
Minimum Hours Required	65

ELECTRICAL TECHNOLOGY

North Lake only

(Certificate)

Completion of all courses listed below qualifies a student for a Certificate in Electrical Technology. The courses may be taken in any order after consultation with the instructor.

	CREDIT HOURS
SEMESTER I	
ELE 105 Introduction to Electrical Technology	2
ELE 106 Fundamentals of Electricity	4
ELE 107 Electrical Transformers	4
ELE 108 General Electrical Codes	2
MTH 195 Technical Mathematics I	3
	15
SEMESTER II	
ELE 115 Low Voltage Circuits	3
ELE 116 General Electrical Wiring	3
ELE 117 General Electrical Planning	4
ELE 118 Commercial Codes	2
COM 131 Applied Communications	3
	15
Minimum Hours Required	30

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.

ELECTRONIC COMPUTER-AIDED TECHNOLOGY

Richland only

(Associate Degree)

The two year Electronic Computer-Aided Technology program will prepare students for technical level employment in electronics and related industries. The emphasis in this program is on computer-aided electronics, particularly in an automated manufacturing environment. Computer-aided instruction and analysis studies include electronic devices and their application in analog and digital circuits, basic microcomputers, microcomputer interfacing, computer-aided electronic analysis, and digital machine control systems.

	CREDIT HOURS
SEMESTER I	
CIM 101 Introduction to CAD	3
CIM 121 Introduction to Quality Control	2
CIM 188 Manufacturing Processes	2
ET 190 DC Circuits & Electrical Measurements .4	
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
Social/Behavioral Science Elective	3
	<u>17</u>
SEMESTER II	
COM 131 Applied Communications or	
ENG 101 Composition I	3
ECT 144 Computer-Aided Instrumentation	
and Testing	4
ET 191 AC Circuits	4
ET 193 Active Devices	4
MTH 196 Technical Mathematics II or	
MTH 102 Plane Trigonometry	3
	<u>18</u>
SEMESTER III	
ECT 143 Technical Programming	4
ECT 239 Principles of Microcomputers or	
ECT 228 Operational Amplifiers**	4
ECT 242 Digital Computer Circuits	4
PHY 111 Introductory General Physics	4
SC 101 Introduction to Speech Communication 3	
	<u>19</u>

SEMESTER IV

ECT 268 Microcomputer Interfacing or	
ECT 230 Digital Machine Control**	4
Humanities/Fine Arts Elective	3
PHY 112 Introductory General Physics	4
MTH 297 Technical Mathematics III or	
MTH 124 Calculus I	3-5
Elective--any non-ECT course	3
	<u>17-19</u>

Minimum Hours Required 71

**Electronic Computer-Aided Technology 290 or 704 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.

ELECTRONIC COMPUTER-AIDED TECHNOLOGY CERTIFICATE

Richland only

(Certificate)

This one-year program develops the basic skills necessary for entry level positions in electronics and related industries, computer-aided instruction and analysis studies in the courses. All courses required for the certificate are applicable to the Electronic Computer-Aided Technology degree.

	CREDIT HOURS
SEMESTER I	
ET 190 DC Circuits and Electrical Measurements	4
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
ECT 143 Technical Programming	4
CIM 101 Introduction to CAD	3
CIM 188 Manufacturing Processes	2
	<u>16</u>
SEMESTER II	
ET 191 AC Circuits	4
ET 193 Active Devices	4
ECT 242 Digital Computer Circuits	4
ECT 144 Computer-Aided Instrumentation and Testing	4
MTH 196 Technical Mathematics II or MTH 102 Plane Trigonometry	3
	<u>19</u>
Minimum Hours Required	35

ELECTRONIC TELECOMMUNICATIONS

Eastfield and Mountain View only

(Associate Degree)

This program is designed to prepare students to work as hardware technicians in the field of telecommunications. The student will be trained to test, interface, trouble-shoot, and repair equipment for the telecommunications industry. The student will learn schematic interpretation, test equipment usage, and technical communications.

	CREDIT HOURS
SEMESTER I	
ET 190 DC Circuits and Electrical Measurements*	4
ET 191 AC Circuits*	4
ENG 101 Composition I	3
MTH 195 Technical Mathematics I**	3
+ Elective Social/Behavioral Science	3
	<u>17</u>
SEMESTER II	
ET 102 Introduction to Telecommunications	3
ET 103 Introduction to Telecommunications Laboratory	1
ET 197 Digital Logic Principles	4
ET 193 Active Devices	4
SC 101 Introduction to Speech Communication	3
Elective Any Non-ET Course	3
	<u>18</u>
SEMESTER III	
ET 290 Advanced Electronic Devices or	
ET 260 Sinusoidal Circuits	4
ET 291 Linear Integrated Circuit Applications or	
ET 238 Linear Integrated Circuits	4
ET 292 Telephony Switching Systems	4
ET 293 Basic Radio Circuitry	4
	<u>16</u>
SEMESTER IV	
ET 298 Electro-Optics Systems	4
+ + Elective Telecommunications	8
+ + + Elective Humanities/Fine Arts	3
	<u>15</u>
Minimum Hours Required	66

+ Electives—must be selected from :

Any PSY, HD, HST or GVT course 3

+ + Electives—two of three Telecommunications electives must be selected from the following:

ET 295	Telecommunications Signaling	4
ET 297	System Installation and Testing	4
ET 299	Cellular Telephony Communications	4

+ + + Electives—must be selected from:

Any ART, HUM, MUS, PHI, or THE course 3

*ET 135 may be substituted for ET 190 and ET 191 combined.

**MTH 101 or 102 or equivalent may be substituted for Technical Mathematics.

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.

ELECTRONIC TELECOMMUNICATIONS

(Pending Coordinating Board Approval for Fall 1993)

Eastfield and Mountain View only

(Certificate)

This one-year program provides the student with the basic skills needed in the electronic telecommunications industry. All of the courses for the one-year certificate are applicable to the Electronic Telecommunications associate degree.

	CREDIT HOURS
SEMESTER I	
ET 190 DC Circuits and Electrical Measurements	4
ET 191 AC Circuits	4
ET 197 Digital Logic Principles	4
MTH 195 Technical Mathematics I**	3
ET 102 Introduction to Telecommunications ...	3
ET 103 Introduction to Telecommunications Laboratory	1
	<u>19</u>
SEMESTER II	
ET 193 Active Devices	4
ET 292 Telephony Switching Systems	4
ET 293 Basic Radio Circuitry	4
MTH 196 Technical Mathematics II	3
	<u>15</u>
SEMESTER III	
ET 298 Electro-Optics Systems	4
	<u>4</u>
Minimum Hours Required	38

ELECTRONICS/COMPUTER TECHNOLOGY

Eastfield only

(Associate Degree)

This curriculum is designed to prepare a graduate to work as a technician on devices that require digital circuits such as computers, test equipment, automatic control units and central distribution systems. The student will learn schematic interpretation, test equipment usage, and technical communications.

	CREDIT HOURS
SEMESTER I	
ET 190 DC Circuits and Electrical Measurements*	4
ENG 101 Composition I or	
COM 131 Applied Communications	3
MTH 195 Technical Mathematics I**	3
+ Elective Humanities/Fine Arts	3
+ + Elective Social/Behavioral Science	3
	16
SEMESTER II	
ET 191 AC Circuits*	4
ET 193 Active Devices	4
ET 197 Digital Logic Principles	4
SC 101 Introduction to Speech Communication	3
Elective Any Non-ET Course	3
	18
SEMESTER III	
ET 260 Sinusoidal Circuits	4
ET 263 Digital Computer Theory	4
ET 266 Computer Applications	4
+ + + Elective(s) Technical	3-4
	15-16
SEMESTER IV	
ET 238 Linear Integrated Circuits	4
ET 264 Digital Systems	4
ET 265 Digital Research	3
ET 267 Microprocessors	4
	15
Minimum Hours Required	64

+ Electives—must be selected from:

Any ART, HUM, MUS, PHI or THE course 3

+ + Electives—must be selected from:

Any GVT, HD, HST or PSY course 3

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

ET 102	Introduction to Telecommunications	3
ET 103	Introduction to Telecommunications Laboratory	1
ET 170	Printed Circuit Board Manufacturing	1
ET 172	Soldering	1
ET 174	Oscilloscope Utilization	1
ET 194	Instrumentation	3
ET 200	Special Applications of Electronics	4
ET 268	Microprocessor Trouble-shooting and Interface	4
ET 270	Computer Aided Circuit Analysis and Design	4
ET 271	UNIX Tools for Circuit Analysis	4
ET 272	Introduction to Computer Aided Testing	4
ET 273	Advanced Computer Aided Testing	4
ET 261	Pulse and Switching Circuits	4
ET 292	Telephony Switching Systems	4
ET 293	Basic Radio Circuitry	4
ET 298	Electro-Optics Systems	4
ET 704	Cooperative Work Experience	4
ET 714	Cooperative Work Experience	4
CAD 240	Printed Circuit Design	3
CS 111	Computing Science I	3
CS 122	Introduction to Basic Programming	3
MTH 101	College Algebra	3
MTH 102	Plane Trigonometry	3
MTH 121	Analytic Geometry	3
MTH 196	Technical Mathematics II	3
MTH 297	Technical Mathematics III	3

*ET 135 may be substituted for ET 190 and ET 191 combined.

**MTH 101 or 102, or equivalent may be substituted for Technical Mathematics.

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/COMPUTER TECHNOLOGY -- BASIC ELECTRONICS TECHNOLOGY CERTIFICATE

Eastfield only

(Certificate)

This one-year program provides the student with the basic skills needed in the electronic industry. All of the courses for the one-year certificate are applicable to the Electronics/Computer Technology associate degree.

	CREDIT HOURS
SEMESTER I	
ET 190 DC Circuits and Electrical Measurements	4
ET 191 AC Circuits	4
ET 192 Digital Computer Principles	3
MTH 195 Technical Mathematics I	3
	<u>14</u>
SEMESTER II	
ET 193 Active Devices	4
ET 194 Instrumentation	3
MTH 196 Technical Mathematics II	3
	<u>10</u>
SEMESTER III	
ET 260 Sinusoidal Circuits	4
ET 263 Digital Computer Theory	4
ET 266 Computer Applications	4
	<u>12</u>
Minimum Hours Required	36

ELECTRONICS TECHNOLOGY

Mountain View and North Lake only

(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
SEMESTER I	
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
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
+ Elective Humanities/Fine Arts	3
+ + Elective Social/Behavioral Science	3
	16-18
SEMESTER II	
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
CAD 183 Basic Drafting or	(4)
CAD 231 Electronic Drafting or	(3)
CAD 245 Computer Aided Design or	(3)
MTH 196 Technical Mathematics II or	(3)
MTH 102 Plane Trigonometry	3
	13-18
SEMESTER III	
ET 231 Special Circuits with Communi-	
cations Applications	4
ET 232 Analysis of Electronic Logic and	
Switching Circuits	4
ET 238 Linear Integrated Circuits	4
ET 240 Electronic Theory and Application	
of Digital Computers	4
Elective Any Non-ET Course	3
	19
SEMESTER IV	
ET 234 Electronic Circuits & Systems	3
ET 237 Modular Memories & Microprocessors	4
ET 239 Microwave Theory	3
+ + + Elective Technical	7-8
	17-18
Minimum Hours Required	67

+ Electives--must be selected from:

Any ART, HUM, MUS or PHI course 3

+ + Elective--must be selected from:

Any GVT, HD, HST or PSY course 3

+ + + Electives--technical elective must be selected from the following:

CIS 111	Data Entry Applications & Concepts	3
ET 170	Printed Circuit Board Manufacturing	1
ET 172	Soldering	1
ET 174	Oscilloscope Utilization	1
ET 200	Special Applications of Electronics	4
ET 201	Automated Manufacturing	4
ET 210	Basic CRT Display	4
ET 268	Microprocessor Troubleshooting and Interface	4

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 -- AUTOMATED MANUFACTURING OPTION

Mountain View Only

(Associate Degree)

The Automated Manufacturing option prepares students to work as electronics technicians in maintenance, field service and research and development on automated equipment used in manufacturing in a wide array of industries. Training in theory and hands-on skills in electronic and control devices, computers and software, mechanical equipment and robotics, power systems and processes and applications used in automated manufacturing provides graduates with a diverse background to be prepared for the multi-technology based job opportunities for today and tomorrow.

	CREDIT HOURS
SEMESTER I	
ET 135 DC-AC Theory and Circuit Analysis or	(6)
ET 190 DC Circuits and Electrical Measurements	4
COM 131 Applied Communications or	
ENG 101 Composition I	3
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
+ Elective Humanities/Fine Arts	3
+ + Elective Social/Behavioral Science	3
	<u>16-18</u>

SEMESTER II

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
CAD 183 Basic Drafting or	(4)
CAD 231 Electronics Drafting or	(3)
CAD 245 Computer Aided Design or	(3)
MTH 196 Technical Mathematics II or	(3)
MTH 102 Plane Trigonometry	3
	<u>13-18</u>

SEMESTER III

ET 232 Analysis of Electronic Logic and Switching Circuits	4
ET 238 Linear Integrated Circuits	4
ET 240 Electronic Theory and Applications of Digital Computers	4
ET 202 Industrial Power Systems	4
Elective Any Non-ET Course	3
	<u>19</u>

SEMESTER IV

ET 201 Automated Manufacturing	4
ET 203 Industrial Controls	4
ET 234 Electronic Circuits & Systems	3
ET 237 Modular Memories and Microprocessors	4
	<u>15</u>

Minimum Hours Required 65

+ Elective--must be selected from:

Any ART, HUM, MUS or PHI course 3

+ + Elective--must be selected from:

Any GVT, HD, HST or PSY course 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

Mountain View only

(Associate Degree)

This option to the Electronics Technology program provides the student with an electronics background and specialized skills in aviation electronics (avionics). The student should obtain a level of practical skills adequate to gain entry level employment in the area of installation and maintenance.

	CREDIT HOURS
SEMESTER I	
ET 135 DC-AC Theory and Circuit Analysis or (6)	
ET 190 DC Circuits and Electrical Measurements	4
AV 129 Introduction to Aircraft Electronic Systems	3
COM 131 Applied Communications or	
ENG 101 Composition I	3
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
+ Elective Humanities/Fine Arts	3
	<u>16-18</u>
SEMESTER II	
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
CAD 183 Basic Drafting or	(4)
CAD 231 Electronic Drafting or	(3)
CAD 245 Computer Aided Design or	(3)
MTH 196 Technical Mathematics II or	(3)
MTH 102 Plane Trigonometry	3
	<u>14-19</u>
SEMESTER III	
ET 231 Special Circuits with Communication Applications	4
ET 232 Analysis of Electronic Logic and Switching Circuits	4
ET 238 Linear Integrated Circuits	4
ET 240 Electronic Theory and Applications of Digital Computers	4
Elective Any Non-ET Course	3
	<u>19</u>

SEMESTER IV

ET 210 Basic CRT Display & Television Theory & Service	4
ET 237 Modular Memories and Microprocessors	4
ET 239 Microwave Technology	3
AV 132 Aircraft Electrical and Electronics Systems Installation	4
+ + Elective Social/Behavioral Science	3
	<u>18</u>

Minimum Hours Required 67

+ Elective--must be selected from:

Any ART, HUM, MUS or PHI course 3

+ + Elective--must be selected from:

Any GVT, HST, HD or PSY course 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 TECHNOLOGY

Mountain View only

(Certificate)

This one-year certificate program is intended to provide the student with a basic electronics background and a level of knowledge and practical skills adequate to gain entry-level employment in the installation and maintenance of Aircraft Electronics Systems (Avionics). This program will concentrate on the technical knowledge offered in a lecture/supervised laboratory mode.

	CREDIT HOURS
SEMESTER I	
ET 135 DC-AC Theory and Circuit Analysis (Fall Days Only) or	(6)
ET 190 DC Circuits and Electrical Measurements and	4
ET 191 AC Circuits (Unless ET 135 Completed)	4
AV 129 Introduction to Aircraft Electrical Systems	3
MTH 195 Technical Mathematics I or MTH 101 College Algebra	3
+ Elective	4
	16-18
SEMESTER II	
ET 193 Active Devices	4
ET 231 Special Circuits with Communication Applications	4
ET 240 Electronic Theory and Applications of Digital Computers	4
ENG 101 Composition I or COM 131 Applied Communications	3
+ Elective	4
	19

Minimum Hours Required 35

+ Electives--must be selected from the following:

AV 132 Aircraft Electrical and Electronics Systems Installation	4
AV 235 Operational Testing of Aircraft Electronic Systems	4
ET 210 Basic CRT Display and Television Theory and Service	4

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 -- MICROCOMPUTER MAINTENANCE OPTION

Eastfield and Mountain View

(Associate Degree)

This program is designed to develop the basic skills and knowledge necessary to obtain an entry level position in the field of microcomputer maintenance. The student will obtain a solid foundation in electronic and microcomputer theory, programming, and troubleshooting techniques to repair and maintain microcomputer and their peripheral devices. Besides the technical skills obtained, the student will develop skills in problem solving, decision making, and interpersonal relationships.

	CREDIT HOURS
SEMESTER I	
ET 135 DC-AC Theory and Circuit Analysis or	(6)
ET 190 DC Circuits and Electrical Measurements	4
COM 131 Applied Communications or	
ENG 101 Composition I	3
MTH 195 Technical Mathematics I or	
MTH 101 College Algebra	3
+ Elective Humanities/Fine Arts	3
+ + Elective Social/Behavioral Science	3
	<u>16-18</u>
SEMESTER II	
ET 191 A.C. Circuits (Unless ET 135 completed)	4
CIS 101 Introduction to Computer Applications & Concepts	4
ET 193 Active Devices	4
CAD 183 Basic Drafting or	(4)
CAD 231 Electronic Drafting or	(3)
CAD 245 Computer Aided Design or	(3)
MTH 196 Technical Mathematics II or	(3)
MTH 102 Plane Trigonometry	3
SC 101 Introduction to Speech Communication	3
	<u>14-19</u>

SEMESTER III

ET 232 Analysis of Electronic Logic and Switching Circuits	4
ET 237 Modular Memories and Microprocessors	4
ET 246 Microcomputer Theory and Systems Maintenance	4
Elective Any Non-ET Course	3
	<u>15</u>

SEMESTER IV

ET 210 Basic CRT Display and Television Theory	4
ET 268 Microprocessor Troubleshooting and Interfacing	4
ET 247 Microcomputer Peripheral Devices	4
ET 248 Digital Data Communications	4
	<u>16</u>

Minimum Hours Required 63

+ Elective--must be selected from:

Any ART, HUM, MUS or PHI course 3

+ + Elective--must be selected from:

Any GVT, HD, HST or PSY course 3

FASHION MARKETING

Brookhaven and Cedar Valley only

(Associate Degree)

This two-year program is designed for those interested in careers related to fashion wholesaling and retailing. Students explore merchandising, buying, textiles, display, advertising and computer applications in the fashion industry. Emphasis is placed on cooperative work experience which gives the student necessary preparation and experience needed for an entry-level position.

	CREDIT HOURS
SEMESTER I	
MKT 137 Principles of Retailing	3
MKT 239 Automated Inventory Management	3
MKT 291 Fashion Merchandising	3
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
	<u>18</u>
SEMESTER II	
MKT 230 Salesmanship	3
DES 135 Textiles	3
MKT 251 Visual Merchandising	3
PSY 131 Applied Psychology and Human Relations or	
PSY 101 Introduction to Psychology	3
ENG 102 Composition II	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>
SEMESTER III	
MKT 206 Principles of Marketing	3
MKT 292 Fashion Design	3
HUM 101 Introduction to the Humanities or	
ART 104 Art Appreciation	3
MKT 703 Cooperative Work Experience	3
Elective Any Non-MKT Course	3
	<u>15</u>
SEMESTER IV	
MKT 233 Advertising and Sales Promotion	3
MKT 290 Fashion Buying	3
MKT 713 Cooperative Work Experience	3
ACC 201 Accounting I or	
ACC 131 Bookkeeping	3
+ Elective	3
	<u>15</u>
Minimum Hours Required	66

+ Electives—may be selected from the following:

BUS 234	Business Law	3
ECO 201	Principles of Economics I	3
ECO 202	Principles of Economics II	3
MGT 136	Principles of Management	3
MGT 237	Organizational Behavior	3
MKT 211	Special Topics in Fashion Marketing	1
MKT 212	Special Topics in Fashion Marketing	2
MKT 222	Fashion Show Production	2
MKT 223	Special Topics in Fashion Marketing	3
MKT 224	Computer Graphics: Marketing Applications	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.

FIRE PROTECTION TECHNOLOGY

El Centro only

(Associate Degree)

The curriculum is primarily designed to provide professional training for firemen. Students who do not work for a fire department may be admitted to the program after a review of their backgrounds by the FPT consultant, the FPT counselor or the Physical and Social Science Division Chairperson. Three Fire Protection Technology courses are offered each long semester at night on the "flip-flop" basis to accommodate work shift changes. The following curriculum guide is designed for full-time students; those attending part-time will find the program takes considerably longer.

	CREDIT HOURS
SEMESTER I	
FPT 132 Fire Prevention	3
ENG 101 Composition I	3
MTH 101 College Algebra or	
MTH 202 Introduction to Statistics	3
SC 101 Introduction to Speech	
Communication	3
Elective Any Non-FPT Course	3
	15
SEMESTER II	
FPT 141 Fire Administration I	3
FPT 146 Fire and Arson Investigation I	3
ENG 102 Composition II	3
GVT 201 American Government	3
	12
SEMESTER III	
FPT 140 Fire Fighting Tactics and Strategy	3
FPT 229 Building Construction	3
GVT 202 American Government	3
+ Elective	3-4
	12-13
SEMESTER IV	
FPT 137 Hazardous Materials I	3
CHM 101 General Chemistry	4
+ + Elective	3
	10
SEMESTER V	
FPT 233 Fire Protection Systems	3
HST 101 History of the United States	3
CHM 102 General Chemistry	4
	10
SEMESTER VI	
+ Elective	3
+ + Elective	3-4
	6-7
Minimum Hours Required	65

+ Electives--9 hours of electives must be selected from the following:

FPT 131	Fundamentals of Fire Protection	3
FPT 235	Fire Administration II	3
FPT 236	Legal Aspects of Fire Protection	3
FPT 237	Hazardous Materials II	3
FPT 238	Fire Safety Education	3
FPT 240	Fire Insurance Fundamentals	3
FPT 244	Industrial Fire Protection	3
FPT 245	Water Systems	3
FPT 246	Fire and Arson Investigation II	3
FPT 247	Building Codes	3
CIS 101	Introduction to Computer Applications and and Concepts	4

+ + Electives--3 hours must be selected from the following:

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

For Associate Degree of Applied Science, students must complete:

- (1) 7 required fire courses
 - (2) 3 fire electives
 - (3) 9 required academic courses
 - (4) 3 hours of electives outside student's major field
- for a total of 65 semester hours.

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.

FOOD AND HOSPITALITY SERVICE

El Centro only

(Associate Degree)

The Food and Hospitality Service Program trains students to assume responsible positions in the Food Hospitality industry. Courses are designed to cover the various operational functions of restaurants, clubs, cafeterias, coffee shops and other types of hospitality service.

	CREDIT HOURS
SEMESTER I	
FHS 110 Principles of Food & Beverage Administration* or	
FHS 112 Organization and Management* or	
FHS 115 Principles of Hotel Administration	3
FHS 119 Food Service Equipment	3
FHS 120 Basic Food Preparation	3
FHS 124 Food Service Sanitation and Safety	3
ENG 101 Composition I	3
MTH 130 Business Math	3
	<u>18</u>
SEMESTER II	
FHS 111 Dining Room Service Management	3
FHS 116 Supervision for Hospitality Services	3
FHS 122 Advanced Food Preparation	3
FHS 132 Food Purchasing, Handling & Storage	3
FHS 135 Nutrition and Menu Planning	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>
SEMESTER III	
FHS 220 Quantity Food Preparation and Service	4
FHS 233 Food Marketing** or	
FHS 248 Advanced Nutrition and Dietetics** or	
FHS 249 Child Nutrition or	
FHS 210 Hotel-Motel Sales Development**	3
FHS 704 Cooperative Work Experience	4
+ Elective	3
+ + Elective	3
	<u>17</u>
SEMESTER IV	
FHS 138 Food Service Cost Control	3
FHS 222 Advanced Quantity Food Preparation and Service	4
FHS 714 Cooperative Work Experience	4
PSY 131 Applied Psychology and Human Relations or	
PSY 101 Introduction to Psychology or	
HD 105 Basic Processes of Interpersonal Relationships	3
Elective Any Non-FHS Course	3
	<u>17</u>

Minimum Hours Required 70

+ Electives--must be selected from the following:

FHS 114	Front Office Procedures	3
FHS 140	Elementary Bakery Training	3
FHS 201	Hotel-Restaurant-Institution-Special Topics	1
FHS 202	Hotel-Restaurant-Institution-Special Topics	2
FHS 203	Hotel-Restaurant-Institution-Special Topics	3
FHS 204	Hotel-Restaurant-Institution-Special Topics	3
FHS 214	Hotel-Motel Law	3
FHS 233	Food Marketing	3
FHS 238	Garde-Manger Training	3
FHS 239	Saucier Training	3
FHS 245	Advanced Pastry Shop Training	3
FHS 247	Beverage Operations and Service	3
FHS 248	Advanced Nutrition and Dietetics	3
FHS 249	Child Nutrition	3
ACC 201	Principles of Accounting I	3
BUS 234	Business Law	3
ECO 105	Economics of Contemporary Social Issues	3
ECO 201	Principles of Economics I	3

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

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

*FHS 110 is recommended for those interested in Commercial Food Service - such as restaurants.

*FHS 112 is recommended for those interested in Institutional Food Service - such as school, hospitals.

*FHS 115 is recommended for those interested in Hotel- Motel Management.

**FHS 233 is suggested for those interested in Restaurant Management.

**FHS 248 is suggested for those interested in the areas of hospital dietetics.

**FHS 249 is suggested for those interested in the fields of child nutrition.

**FHS 210 is suggested for those interested in Hotel and Motel Sales.

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.

FOOD AND HOSPITALITY SERVICE

El Centro only

(Certificate)

This certificate program prepares the student to function as a hospitality services worker. All credits earned in this program may be applied toward the Associate Degree in Food and Hospitality Service.

	CREDIT HOURS
SEMESTER I	
FHS 110 Principles of Food and Beverage Administration or	
FHS 112 Organization and Management or	
FHS 115 Principles of Hotel Administration	3
FHS 119 Food Service Equipment	3
FHS 120 Basic Food Preparation	3
FHS 124 Food Service Sanitation and Safety	3
MTH 130 Business Math	3
	<u>15</u>
SEMESTER II	
FHS 116 Supervision for Hospitality Services	3
FHS 122 Advanced Food Preparation	3
FHS 135 Nutrition and Menu Planning	3
FHS 138 Food Service Cost Control	3
FHS 233 Food Marketing or	
FHS 248 Advanced Nutrition and Dietetics or	
FHS 249 Child Nutrition and Dietetics or	
FHS 210 Hotel-Motel Sales Development	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>
Minimum Hours Required	33

GRAPHIC COMMUNICATIONS

Eastfield only

(Associate Degree)

The student's understanding of graphic processes is developed for employment in a commercial printing firm or publication facility such as a newspaper or magazine. Students also learn production and management concepts and techniques useful in the field of graphic communications including photography and journalism.

	CREDIT HOURS
SEMESTER I	
GA 120 Printing Fundamentals	3
GA 136 Beginning Copy Preparation	3
ENG 101 Composition I or	
COM 131 Applied Communications	3
JN 101 Introduction to Mass	
Communications	3
OFC 172 Beginning Typing	3
	<u>15</u>
SEMESTER II	
GA 134 Basic Camera Operations	3
GA 140 Beginning Offset Printing	3
MTH 130 Business Mathematics or	
MTH 115 College Mathematics I	3
SC 101 Introduction to Speech	
Communication	3
Elective Humanities/Fine Arts	3
	<u>15</u>
SEMESTER III	
GA 142 Basic Typesetting	3
GA 234 Intermediate Camera Operations	3
GA 236 Advanced Copy Preparation	3
GA 704 Cooperative Work Experience or	(4)
+ Elective	3-4
PHO 110 Introduction to Photography and	
Photo-Journalism	3
	<u>15-16</u>
SEMESTER IV	
GA 240 Advanced Offset Printing or	
GA 242 Intermediate Typesetting	3
GA 714 Cooperative Work Experience	4
JN 102 News Gathering and Writing or	
PHO 111 Advanced Photography and Photo-	
Journalism	3
PSY 101 Introduction to Psychology or	
PSY 131 Applied Psychology and Human	
Relations	3
Elective Any Non-GA Course	3
	<u>15-16</u>
Minimum Hours Required	61

+ Electives—must be selected from the following:

CAD 232	Technical Illustrations	3
CIS 101	Introduction to Computer Applications and	
	Concepts	3
GA 204	Electronic Publishing	4
GA 206	Graphic Projects	3
GA 225	Special Topics	3
JN 103	News Gathering and Writing	3
PHO 111	Advanced Photography and Photo-Journalism ..	3
PHO 207	Photography for Publication	3

+ + Elective—must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to Theater	3
Foreign Language		
Literature		

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.

GRAPHIC COMMUNICATIONS -- GRAPHIC ARTS

Eastfield only

(Certificate)

This certificate program provides the student with skill development opportunities in the field of graphic arts. Successful completion of this certificate program qualifies a person for employment in a commercial printing firm or in the printing division of a large company.

	CREDIT HOURS
SEMESTER I	
GA 120 Printing Fundamentals	3
GA 136 Beginning Copy Preparation	3
ENG 101 Composition I or	
COM 131 Applied Communications	3
JN 101 Introduction to Mass	
Communications	3
OFC 172 Beginning Typing	3
	<u>15</u>

SEMESTER II

GA 134 Basic Camera Operations	3
GA 140 Beginning Offset Printing	3
MTH 130 Business Mathematics or	
MTH 115 College Mathematics I	3
SC 101 Introduction to Speech	
Communication	3
+ Elective	3-4
	<u>15-16</u>

Minimum Hours Required 30

+ Elective--must be selected from the following:

CAD 232 Technical Illustration	3
CIS 101 Introduction to Computer Applications and	
Concepts	3
GA 204 Electronic Publishing	4
GA 206 Graphic Projects	3
GA 225 Special Topics	3
JN 103 News Gathering and Writing	3
PHO 111 Advanced Photography and Photo-Journalism	3

INTERIOR DESIGN

El Centro only

(First Professional Level Certificate in Interior Design)

(Associate Degree--Semesters I through IV)

The interior designer provides design solutions for environmental spaces of public structures and private residences. In the designer's presentation, the needs of the client are met by shaping the physical environment. A knowledge of construction and materials, both structural and decorative, is essential for the planning of aesthetic yet functional spaces "to enhance the quality of life and protect the health, safety and welfare of the public." A Professional Level Certificate program "is the first component of a sequence including formal education, entry level experience and satisfactory completion of a qualifying examination, the National Council for Interior Design Qualification (NCIDQ)." Upon completion of these three steps the individual is qualified to become a professional registered interior designer in the State of Texas.

This program is fully accredited by F.I.D.E.R. (Foundation for Interior Design Education Research), the source of the above quotations.

CREDIT
HOURS

FALL - SEMESTER I

INT 164	Color Theory and Applications for Interior Designers	3
INT 171	Drafting for Interior Designers	3
ART 105	Survey of Art History	3
ART 165	Fundamental Design Studio I	4
ENG 101	Composition I	3
SC 101	Introduction to Speech Communication	3
		19

SPRING - SEMESTER II

INT 166	Interior Design Studio II	4
INT 173	Construction Drawings for Interior Designers	3
INT 176	Perspective Drawing for Interior Designers	2
INT 191	History of Modern Design	3
ART 106	Survey of Art History	3
MTH 116	College Mathematics II	3
		18

SUMMER SESSION I

HUM 101	Introduction to the Humanities or	
PHI 101	Introduction to Philosophy or	
	Foreign Language (on approval)	3
		3

SUMMER SESSION II

HD 105	Basic Processes of Interpersonal Relationships or	
PSY 101	Introduction to Psychology or	
PSY 131	Applied Psychology and Human Relations	3
		3

FALL - SEMESTER III

INT 261	Interior Design Studio III	3
INT 276	Delineation Techniques for Interior Designers	3
INT 281	Textiles for Interior Design	3
INT 293	History of the Interior Arts	3
INT 245	Design Sketching	3
		15

SPRING - SEMESTER IV

INT 262	Interior Design Studio IV	3
INT 283	Materials for Interior Design	3
INT 284	Lighting Design	3
INT 294	Comparative Survey of Styles	3
Elective	.....	3
		15

FALL - SEMESTER V

INT 363	Interior Design Studio V	3
INT 385	Professional Practice for Interior Designers	3
INT 395	Restoration and Preservation	3
Elective	Any Non-INT Course	3
		12

SPRING - SEMESTER VI

INT 364	Interior Design Studio VI	3
ARC 257	Computer Graphics	3
INT 702	Cooperative Work Experience* or	2
INT 703	Cooperative Work Experience	(3)
ART 114	Drawing I	3
		11-12

Minimum Hours Required For Associate Degree ... 73

Upon completion of the course work required for semesters five and six and an additional twenty-four credit hours of approved course work (as required by F.I.D.E.R.), the student will be awarded the First Professional Level Certificate in Interior Design.

*Also offered in summer as flex-entry.

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. (Inverted degree, B.A.A.S., is offered at the University of North Texas.)

INTERNATIONAL BUSINESS AND TRADE

Richland only

(Associate Degree)

The International Business and Trade Program prepares students for entry-level employment in such positions as specialists in exporting and importing for the growing international trade community. Skills developed for the export and import of goods and services are presented in the context of the global economy and cross-cultural awareness. Emphasis is placed on the contribution of exports to the local, state, and national economies. Entrepreneurs or managers of firms with export potential may also benefit from international management studies.

	CREDIT HOURS
SEMESTER I	
IBT 275 Introduction to International Business and Trade	3
MGT 136 Principles of Management	3
MKT 206 Principles of Marketing	3
ECO 201 Principles of Economics I	3
ENG 101 Composition I	3
	<u>15</u>

SEMESTER II	
IBT 276 International Marketing Management	3
MGT 237 Organizational Behavior	3
ECO 202 Principles of Economics II	3
BUS 234 Business Law	3
+ Elective Social/Behavioral Science	3
MTH 111 Mathematics for Business and Economics I or	
MTH 130 Business Mathematics or	
MTH 139 Applied Mathematics	3
	<u>18</u>

SEMESTER III	
IBT 270 Export/Import Documentation and Transportation	3
IBT 277 International Comparative Management	3
ACC 201 Principles of Accounting I	3
CIS 101 Introduction to Computer Applications and Concepts or	4
IBT 271 International Information Systems (3)	
*FR 101 Beginning French or	
SPA 101 Beginning Spanish	4
+ + Elective	3-4
	<u>19-21</u>

SEMESTER IV

IBT 278 International Finance	3
IBT 279 International Business Law	3
ACC 202 Principles of Accounting II	3
*FR 102 Beginning French or	
SPA 102 Beginning Spanish	4
SC 101 Introduction to Speech Communication	3
Elective Any Non-IBT Course	3
	<u>19</u>

Minimum Hours Required 71

+ Electives—must be selected from the following:

ANT 101 Cultural Anthropology	3
GVT 211 Introduction to Comparative Politics	3
GPY 102 Economic Geography	3
GPY 103 Cultural Geography	3
HST 103 World Civilizations or	
HST 104 World Civilizations	3
PSY 101 Introduction to Psychology	3
SOC 101 Introduction to Sociology	3

+ + Electives—must be selected from the following:

BUS 143 Personal Finance	3
ECO 203 Economics of Global Issues	3
FR 211 French for Business I	3
FR 212 French for Business II	3
IBT 272 International Purchasing	3
IBT 273 Import Customs Regulations	3
IBT 704 Cooperative Work Experience	4
MGT 153 Small Business Management	3
MGT 171 Introduction to Supervision	3
**MGT 212 Special Problems in Business	1
MGT 242 Human Resources Management	3
MGT 244 Problem Solving and Decision-Making	3
MKT 137 Principles of Retailing	3
MKT 230 Salesmanship	3
MKT 233 Advertising and Sales Promotion	3
SPA 211 Spanish for Business I	3
SPA 212 Spanish for Business II	3

*Other languages, such as Chinese, Japanese, or German may be substituted. 200-level language courses are recommended for students who have completed basic language courses. Credits from the College Level Examination Program or credit by examination by the International Language Institute may also be substituted.

**International topics may be offered through this special problems course.

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.

INTERNATIONAL BUSINESS AND TRADE CERTIFICATE

Richland only

(Certificate)

	CREDIT HOURS
SEMESTER I	
IBT 270 Export/Import Documentation and Transportation	3
IBT 275 Introduction to International Business and Trade	3
IBT 277 International Comparative Management	3
CIS 101 Introduction to Computer Applications and Concepts or	4
IBT 271 International Information Systems	(3)
ENG 101 Composition I	3
+ Elective Business-related	3-4
	<u>18-19</u>
SEMESTER II	
IBT 276 International Marketing Management	3
IBT 278 International Finance	3
IBT 279 International Business Law	3
+ Elective Business-related	6-7
SC 101 Introduction to Speech Communication	3
	<u>18-19</u>

Minimum Hours Required 36

+ Elective--must be selected from the following courses:

BUS 234	Business Law	3
ECO 201	Principles of Economics I	3
ECO 202	Principles of Economics II	3
ECO 203	Economics of Global Issues	3
IBT 272	International Purchasing	3
IBT 273	Import Customs Regulations	3
IBT 704	Cooperative Work Experience	4
MGT 136	Principles of Management	3
MKT 206	Principles of Marketing	3
MGT 237	Organizational Behavior	3

INTERPRETER TRAINING PROGRAM

Eastfield only

(Associate Degree)

This program is designed to educate individuals to work with deaf people, agencies and educational institutions. Course work will provide skills to work as an interpreter for the community, a vocational communication specialist, educational interpreter, interpreter aide in the schools and an aide for multiply handicapped deaf children or adults.

	CREDIT HOURS
SEMESTER I	
ITP 140 Introduction to Deafness	3
ITP 141 American Sign Language I	4
ITP 144 Psychosocial Aspects of Deafness	3
ITP 148 Receptive Fingerspelling	1
ENG 101 Composition I	3
PSY 201 Developmental Psychology	3
	<u>16</u>
SEMESTER II	
ITP 143 American Sign Language II	4
ITP 231 Interpreting: Ethics and Specifics	3
ITP 248 Rehabilitation of the Multiply Handicapped Deaf	3
ITP 703 Cooperative Work Experience	3
SC 101 Introduction to Speech Communication	3
	<u>16</u>
SEMESTER III	
ITP 240 American Sign Language III	4
ITP 247 Special Topics In Deafness	3
ITP 250 Interpreting: Sign to Voice	3
BIO 101 General Biology	4
MTH 101 College Algebra or MTH 130 Business Mathematics	3
	<u>17</u>
SEMESTER IV	
ITP 243 American Sign Language IV	4
ITP 253 Interpreting: Voice to Sign	3
ITP 260 Practicum	3
Elective Any Non-ITP Course	3
+ Elective Humanities/Fine Arts	3
	<u>16</u>
Minimum Hours Required	66

+ 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 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

INTERPRETER TRAINING PROGRAM -- SIGN LANGUAGE STUDIES

Eastfield only

(Certificate)

This certificate offers entry level skills toward the development of sign language competency.

	CREDIT HOURS
SEMESTER I	
ITP 140 Introduction to Deafness	3
ITP 141 American Sign Language I	4
ITP 144 Psychosocial Aspects of Deafness	3
ITP 148 Receptive Fingerspelling	1
ENG 101 Composition I	3
	<u>14</u>
SEMESTER II	
ITP 143 American Sign Language II	4
ITP 231 Interpreting: Ethics and Specifics	3
ITP 248 Rehabilitation of the Multiply Handicapped Deaf	3
ITP 703 Cooperative Work Experience	3
SC 101 Introduction to Speech Communication	3
	<u>16</u>
Minimum Hours Required	30

INVASIVE CARDIOVASCULAR TECHNOLOGY

El Centro only

(Associate Degree)

The El Centro Invasive Cardiovascular Technology program is a two year associate degree program. The intensive didactic and clinical training program prepares the graduate for employment in the medical specialty of invasive cardiovascular technology as an invasive cardiovascular technologist.

Invasive Cardiovascular Technology students study the theory of diagnostic techniques used in diagnosis, treatment, and follow-up of cardiovascular disease in humans. The first year of the program concentrates on cardiovascular anatomy and physiology, medical electronics/instrumentation and application of clinical skills in cardiovascular techniques. The second year of the program enables the student to apply acquired cardiovascular skills in actual clinical situations in area hospital cardiovascular labs.

Invasive cardiovascular technologists work in cardiac catheterization laboratories. They assist the cardiologist in performing intracardiac pressure and electrical measurements, oximetry determination, angiocardiology, and measurement/calculation of cardiac function indices. The technologist assists in all phases of the cardiac catheterization including catheter insertion, operation of the electronic instruments, and calculation of the cardiac data used by the physician in confirming diagnosis and designing treatment for the cardiac patient.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, completion of program prerequisite courses with a cumulative grade point of 2.5 or better, and completion of all requirements for admissions as a full-time student to the College. Applicants are rank ordered for admission based on the grade point earned on four prerequisite courses. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupational Admissions, to receive an information packet.

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

PREREQUISITES TO PROGRAM ADMISSION:

BIO 120	Introduction to Human Anatomy And Physiology or	
BIO 221	Anatomy and Physiology I	4
MTH 101	College Algebra	3
CHM 115	Chemical Science	4
ENG 101	Composition I	3
		14

SEMESTER I

BIO 121	Introduction to Human Anatomy and Physiology or	
BIO 222	Anatomy and Physiology II	4
PHY 111	Introductory General Physics	4
ICV 101	Introduction to Cardiovascular Technology	2
ICV 110	Cardiovascular Physiology	3
ICV 112	Medical Instrumentation	3
		16

SEMESTER II

*Humanities Elective		3
SC 101	Introduction to Speech Communication	3
ICV 120	Cardiovascular Physiology II	3
ICV 122	Medical Instrumentation II	3
ICV 124	Cath Lab Fundamentals I	3
		15

SUMMER I (5 Weeks)

ICV 130	Cath Lab Fundamentals II	1
ICV 132	Introduction to Cath Lab	1
		2

SUMMER II (5 Weeks)

ICV 134	Cardiac Cath I	1
ICV 136	Cath Lab Clinical I	2
		3

SEMESTER III

PSY 101	Introduction to Psychology	3
ICV 210	Cardiac Cath II	3
ICV 212	Cath Lab Clinical II	5
		11

SEMESTER IV

Elective	Any Non-ICV Course	3
ICV 220	Cardiac Cath III	3
ICV 222	Cath Lab Clinical III	5
		11

Minimum Hours Required 72

*Humanities electives must be selected from the following:

ART 104	Art Appreciation	3
English 200-Level Literature		
Foreign Language		
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

LEGAL ASSISTANT

El Centro only

(Associate Degree)

The Legal Assistant Program is an associate degree program designed to prepare the student to function as a technically qualified assistant to the lawyer. The program was developed at the request of and in conjunction with the Dallas Bar Association. The four semester curriculum consists of legal technology courses combined with liberal arts and business courses.

	CREDIT HOURS
SEMESTER I	
LA 131 Introduction to Legal Technology	3
LA 135 Texas and Federal Court Systems	3
LA 138 Introductory Legal Research and Drafting	3
ENG 101 Composition I	3
MTH 101 College Algebra or	
MTH 130 Business Mathematics	3
	<u>15</u>
SEMESTER II	
LA 133 Law of Real Property and Real Estate Transactions	3
LA 134 Principles of Family Law	3
LA 225 Business Organizations	3
SC 101 Introduction to Speech Communication	3
Elective Any Non-LA Course	3
	<u>15</u>
SEMESTER III	
LA 227 Civil Litigation I	3
LA 231 Wills, Trusts and Probate Administration	3
LA 238 Legal Office Management	3
GVT 201 American Government	3
+ Elective	3-4
+ + Elective Humanities/Fine Arts	3
	<u>18-19</u>
SEMESTER IV	
LA 240 Advanced Legal Research and Drafting	3
LA 232 Tort and Insurance Law and Claims Investigation	3
LA 234 Personal Property, Sales and Credit Transactions	3
+ Elective	3-4
+ + + Elective Social/Behavioral Science	3
	<u>15-16</u>
Minimum Hours Required	63

+ Electives--6 hours must be selected from the following:

CIS 101	Introduction to Computer Applications and Concepts	4
LA 203	Legal Assistant Special Topics	3
LA 248	Constitutional and Criminal Law	3
LA 251	Civil Litigation II	3
LA 253	Bankruptcy and Creditors' Rights	3
LA 703	Cooperative Work Experience	3
LA 704	Cooperative Work Experience	4
LA 713	Cooperative Work Experience	3
LA 714	Cooperative Work Experience	4

+ + Electives--3 hours must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to the Humanities	3
PHI 101	Introduction to Philosophy	3

+ + + Electives--3 hours must be selected from the following:

HST 101	History of the United States	3
PSY 101	Introduction to Psychology	3
SOC 101	Introduction to Sociology	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 -- ADMINISTRATIVE MANAGEMENT OPTION

Offered at all seven campuses

(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, and personnel administration) but also encompasses the critical areas of business operations (principles of marketing, accounting, and 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 101 Introduction to Computer Applications and Concepts	4
+ Elective	3
	16
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 Human Resources Management	3
MGT 237 Organizational Behavior	3
ECO 202 Principles of Economics II	3
OFC 231 Business Communications	3
+ + Elective Humanities/Fine Arts	3
Elective Any Non-MGT Course	3
	18
Minimum Hours Required	64

+ Electives--may be selected from the following:

IBT 275	Introduction to International Business and Trade	3
IBT 276	International Marketing Management	3
IBT 277	International Comparative Management	3
IBT 278	International Finance	3
IBT 279	International Business Law	3
MGT 140	Introduction to Total Quality Management	3
MGT 153	Small Business Management	3
MGT 171	Introduction to Supervision	3
MGT 210	Small Business Capitalization, Acquisition, and Finance	3
MGT 211	Small Business Operations	3
MGT 212	Special Problems in Business	1
MGT 704	Cooperative Work Experience	4
MGT 714	Cooperative Work Experience	4
MGT 804	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:

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 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
	Foreign Language	

*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

Offered at all seven campuses

(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
SEMESTER I	
MGT 136 Principles of Management	3
MGT 171 Introduction to Supervision	3
MGT 704 Cooperative Work Experience	4
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
SC 101 Introduction to Speech Communication	3
	<u>19</u>
SEMESTER II	
MGT 242 Human Resources Management	3
MGT 714 Cooperative Work Experience	4
CIS 101 Introduction to Computer Applications and Concepts	4
MTH 111 Mathematics for Business and Economics I or	
MTH 130 Business Mathematics	3
ENG 102 Composition II	3
	<u>17</u>
SEMESTER III	
MGT 237 Organizational Behavior	3
MGT 804 Cooperative Work Experience	4
ACC 201 Principles of Accounting I*	3
ECO 201 Principles of Economics I or	
ECO 105 Economics of Contemporary Social Issues	3
	<u>13</u>

SEMESTER IV

MGT 244 Problem Solving and Decision Making	3
MGT 814 Cooperative Work Experience	4
+ Elective Humanities/Fine Arts	3
Elective Any Non-MGT Course	3
	<u>13</u>

Minimum Hours Required 62

+ 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 101 Introduction to Philosophy	3
THE 101 Introduction to the Theatre	3
Foreign Language	

*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

Mountain View only

(Associate Degree)

The Postal Service Administration curriculum is designed as a two-year program that leads to an Associate Degree in Applied 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

SEMESTER I

PSA 110	Introduction to Postal Service	3
ENG 101	Composition I	3
SC 101	Introduction to Speech Communication	3
MTH 111	Mathematics for Business and Economics or	
MTH 130	Business Mathematics	3
MGT 136	Principles of Management	3
		<u>15</u>

SEMESTER II

PSA 122	Customer Service	3
ENG 102	Composition II	3
PSY 101	Introduction to Psychology	3
MGT 171	Introduction to Supervision	3
+ Elective	Humanities/Fine Arts	3
		<u>15</u>

SEMESTER III

PSA 120	Mail Processing	3
CIS 101	Introduction to Computer Applications and Concepts	4
MGT 237	Organizational Behavior	3
SOC 101	Introduction to Sociology	3
MKT 206	Principles of Marketing or	
MKT 233	Advertising and Sales Promotion	3
		<u>16</u>

SEMESTER IV

PSA 216	Postal Management	3
MGT 242	Human Resources Management	3
GVT 201	American Government	3
Elective	Any Non-MGT & Non-PSA Course	6
		<u>15</u>

Minimum Hours Required 61

+ Elective—must be selected from the following:

ART 104	Art Appreciation	3
Foreign Language		3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	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 -- SALES, MARKETING, AND RETAIL MANAGEMENT OPTION

Brookhaven and Cedar Valley only

(Associate Degree)

The Sales, Marketing, and Retail Management Option is designed to prepare students for career opportunities in retail management, sales, or marketing. Students specialize in courses in retail management, sales, and marketing. Students also have the opportunity to work in sales, marketing, or retail areas through a sponsoring business firm.

	CREDIT HOURS
SEMESTER I	
MGT 136 Principles of Management	3
MKT 137 Principles of Retailing	3
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
Elective Any Non-MKT & Non-MGT Course	3
	<u>15</u>
SEMESTER II	
MKT 206 Principles of Marketing	3
MKT 230 Salesmanship	3
ENG 102 Composition II	3
MKT 239 Automated Inventory Management	3
MTH 111 Mathematics for Business and Economics I or	
MTH 130 Business Mathematics	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>
SEMESTER III	
MKT 233 Advertising and Sales Promotion	3
ACC 201 Principles of Accounting I*	3
ECO 201 Principles of Economics I	3
PSY 131 Applied Psychology and Human Relations	3
MKT 703 Cooperative Work Experience	3
	<u>15</u>
SEMESTER IV	
ECO 202 Principles of Economics II	3
MGT 237 Organizational Behavior	3
MGT 242 Human Resources Management	3
MKT 713 Cooperative Work Experience	3
+ Elective	3
	<u>15</u>
Minimum Hours Required	63

+ Elective—may be selected from the following:

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

MEDICAL LABORATORY TECHNICIAN

El Centro only

(Associate Degree)

The Medical Laboratory Technician program prepares the student to perform tests and related duties in a medical laboratory. The program is a balanced curriculum of science, liberal arts, and technical courses including didactic and clinical education.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, rank ordering by grade point average, and completion of all requirements for admission as a full-time student to the college. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

Upon completion of the program, the student is awarded an Associate Degree in Applied Arts and Sciences.

SEMESTER I - FALL

BIO 221	Anatomy and Physiology or	
BIO 120	*Introduction to Human Anatomy and Physiology	4
CHM 101	General Chemistry	4
MLT 133	Hematology	4
MLT 130	Introduction Seminar	1
MLT 134	Instrumentation	2
		<u>15</u>

SEMESTER II - SPRING

BIO 222	Anatomy and Physiology or	
BIO 121	*Introduction to Human Anatomy and Physiology	4
CHM 102	General Chemistry	4
ENG 101	Composition I	3
MLT 136	Immunology/Serology	3
MLT 137	Immunohematology	3
		<u>17</u>

SUMMER SESSION (12 weeks)

MLT 141	Clinical Practice I	4
		<u>4</u>

SEMESTER III - FALL

MTH 101	College Algebra**	3
CHM 203	Quantitative Analysis or	
CHM 201	Organic Chemistry	4
MLT 229	Medical Microbiology I	4
MLT 225	Urinalysis & Body Fluids	3
+ Humanities Elective		3
		<u>17</u>

SEMESTER IV - SPRING

PSY 101	Introduction to Psychology or	
HD 105	Basic Processes of Interpersonal Skills	3
SC 101	Introduction to Speech Communication	3
MLT 231	Clinical Chemistry	4
MLT 237	Medical Microbiology II	2
+ + Elective		3
		<u>15</u>

SUMMER SESSION (12 weeks)

MLT 241	Clinical Practice II	4
		<u>4</u>

Minimum Hours Required 72

+ Humanities elective--must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
ENG (200 Level Literature Courses)	Foreign Language	3

+ + Elective--Any NON-MLT course.

*Must be completed with a "B" or better for substitution for BIO 221, 222.

**Math placement will be based on assessment, usually the student will take DM 093 and then MTH 101.

NOTE: MLT designated courses available daytime only, other courses available at night.

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.

MEDICAL TRANSCRIPTION

El Centro only

(Certificate)

The nine-month certificate program in Medical Transcription prepares the student to function as a medical typist or medical transcriptionist with a thorough knowledge of medical terminology, advanced typing, word processing skills, and work experience. Proper form, editing abilities, and legal implications are stressed. Entry requirement to this program is a typing skill of 50 words per minute. Job opportunities are available in medical records, pathology and radiology departments of hospitals and clinics; physician's offices; the health insurance industry; public and private health foundations and institutions; medical schools; and research centers. Cooperative work experience is a part of this program.

Admission requirements include an orientation session, satisfactory scores on assessment tests and a typing test, rank ordering by grade point average, and meeting all requirements for admission for a full-time student. Call 746-2242, Health Occupations Admissions, to receive an information packet.

	CREDIT HOURS
SEMESTER I	
BIO 123 Applied Anatomy and Physiology	4
ENG 101 Composition I	3
MTR 131 Medical Terminology.....	4
MTR 133 Fundamentals of Medical Transcription	3
MTR 135 Disease Processes I	2
MTR 137 Introduction to Medical Word Processing	2
	18
SEMESTER II	
SC 101 Introduction to Speech Communication	3
MTR 141 Medical Transcription	4
MTR 145 Disease Processes II	4
MTR 714 Cooperative Work Experience	4
	15
Minimum Hours Required	33

A grade of "C" or better is required in all courses for certificate completion.

MORTGAGE BANKING

North Lake College Only

(Associate)

This program is designed to develop the skills and knowledge necessary so that a graduate may advance in career paths appropriate to that person's own particular interests and abilities in the field of mortgage banking. In addition to the specific technical skills and knowledge required to originate, process and manage mortgage loans, the graduate will have covered skills in other areas such as real estate, planning and organization, problem solving and decision making, communication, accounting and business.

	CREDIT HOURS
SEMESTER I	
RE 130 Real Estate Principles	3
RE 131 Real Estate Finance	3
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
MTH 139 Applied Mathematics or	
MTH 111 Mathematics for Business and	
Economics	3
	<u>15</u>

SEMESTER II	
CIS 101 Introduction to Computer Applications	
and Concepts	4
MB 101 Loan Origination	3
SC 101 Introduction to Speech	
Communication	3
ACC 201 Principles of Accounting I	3
+ Elective	3
	<u>16</u>

SEMESTER III	
MB 102 Loan Underwriting	3
MB 103 Loan Closing	3
ECO 201 Principles of Economics I	3
MB 704 Cooperative Work Experience	4
+ + Elective	3
	<u>16</u>

SEMESTER IV	
MB 104 Loan Quality Control	1
MB 205 Loan Servicing	3
MB 206 Secondary Market	3
MB 207 Investor Accounting	3
GVT 201 American Government	3
Elective Any Non-MB course	3
	<u>16</u>

Minimum Hours Required 63

+ Elective – must be selected from the following:

ART 104	Art Appreciation	3
ENG 102	Composition II	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
ENG 210	Technical Writing	3
HST 101	History of the United States	3
HST 102	History of the United States	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3

+ + Electives—must be selected from the following:

ACC 202	Principles of Accounting II	3
ECO 202	Principles of Economics II	3
MB 714	Cooperative Work Experience	4
SC 105	Fundamentals of Public Speaking	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.

MORTGAGE BANKING -- DESIGNATE

(Pending Coordinating Board Approval for Fall 1993)

North Lake Only

(Certificate)

	CREDIT HOURS
SEMESTER I	
ENG 101 Composition I	3
MTH 139 Applied Mathematics or	
MTH 111 Mathematics for Business and Economics I	3
	<u>6</u>
SEMESTER II	
MB 101 Loan Origination	3
MB 102 Loan Underwriting	3
MB 103 Loan Closing	3
MB 104 Loan Quality Control	1
MB 205 Loan Servicing	3
RE 131 Real Estate Finance	3
	<u>16</u>
SEMESTER III	
MB 206 Secondary Market	3
MB 207 Investor Accounting	3
MB 704 Cooperative Work Experience	4
RE 131 Real Estate Finance	3
	<u>13</u>
Minimum Hours Required	35

MOTORCYCLE MECHANICS

Cedar Valley only

(Certificate)

This program is designed to train students to meet entry level requirements in the field of motorcycle mechanics. This will include diagnosis, repair, and maintenance of foreign and domestic motorcycles. Included in this program is the study of carburetion, ignition, and electrical systems, engine overhaul and tune-up, and motorcycle chassis. Throughout the entire program an emphasis is placed on the latest factory recommended techniques.

	CREDIT HOURS
SEMESTER I	
MM 134 Motorcycle Service Principles	4
MM 135 Motorcycle Tune-up	4
MM 136 Motorcycle Two Stroke Engine/ Transmission	4
+ Elective	3
	<u>15</u>
SEMESTER II	
MM 137 Motorcycle Four Stroke Engine/ Transmission	4
MM 138 Motorcycle Electrical Systems	4
MM 139 Motorcycle Chassis and Drive Systems	4
+ Elective	3
	<u>15</u>
SUMMER SESSION	
MM 703 Cooperative Work Experience	3
	<u>3</u>
Minimum Hours Required	33

+ Elective--must be selected from the following courses:

COM 131	Applied Communications or
ENG 101	Composition I or
SC 101	Introduction to Speech Communication
MTH 139	Applied Mathematics or
MTH 195	Technical Mathematics

OFFICE TECHNOLOGY – ADMINISTRATIVE ASSISTANT

Offered at all seven campuses

(Associate)

The primary objective of the Administrative Assistant 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 decision-making skills in addition to basic office skills.

	CREDIT HOURS
SEMESTER I	
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
CIS 101 Introduction to Computer Applications and Concepts	4
OFC 160 Office Calculating Machines	3
OFC 172 Beginning Typing ¹	3
BUS 105 Introduction to Business	3
	<u>19</u>
SEMESTER II	
ENG 102 Composition II	3
OFC 150 Automated Filing Procedures	3
OFC 162 Office Procedures ²	3
OFC 173 Intermediate Typing ¹	3
ACC 131 Bookkeeping I or	
ACC 201 Principles of Accounting	3
OFC 179 Office Information Systems Concepts ³	2
OFC 182 Introduction to Word Processing ³	1
	<u>18</u>
SEMESTER III	
OFC 231 Business Communications	3
SC 101 Introduction to Speech Communication	3
PSY 131 Applied Psychology and Human Relations or	
HD 105 Basic Processes of Interpersonal Relationships	3
OFC 185 Basic Machine Transcription ⁴	1
OFC 282 Word Processing Applications	1
OFC 273 Advanced Typing Applications	2
Elective Any Non-OFC Course	3
	<u>16</u>

SEMESTER IV

HUM 101 Introduction to the Humanities	3
OFC 283 Specialized Software I	1
MGT 136 Principles of Management or	
MGT 237 Organizational Behavior	3
+ Elective(s) ^{5, 6}	3
OFC 703 Cooperative Work Experience or	
OFC 704 Cooperative Work Experience	3-4
	<u>13-14</u>

Minimum Hours Required 66

¹Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests. If a student places out, any OFC course may be taken to supplement the minimum hours required.

²For legal emphasis, OFC 274 (Legal Secretarial Procedures) may be substituted.

³OFC 190 is equivalent to 179, 182 and 185

⁴For legal emphasis, OFC 167 (Legal Terminology and Transcription) may be added.

⁵ + Electives--must be taken from the following:

OFC 103 Speedwriting	4
OFC 143 Contemporary Topics in Office Technology	1
OFC 144 Contemporary Topics in Office Technology	2
OFC 145 Contemporary Topics in Office Technology	3
OFC 159 Beginning Shorthand	4
OFC 183 Keyboarding and Speed for Accuracy	1
OFC 284 Specialized Software	1

⁶For legal emphasis, BUS 234 (Business Law) may be taken.

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 TECHNOLOGY -- GENERAL OFFICE CLERK

Offered at all seven campuses

(Certificate)

This certificate with a clerical emphasis is designed to provide the student with a basic working knowledge of office procedures.

	CREDIT HOURS
SEMESTER I	
ENG 101 Composition I	3
MTH 130 Business Mathematics	3
OFC 160 Office Calculating Machines	3
OFC 172 Beginning Typing ¹	3
BUS 105 Introduction to Business	3
CIS 101 Introduction to Computer Applications and Concepts	4
	<u>19</u>
SEMESTER II	
OFC 162 Office Procedures	3
OFC 173 Intermediate Typing ¹	3
OFC 182 Introduction to Word Processing	1
OFC 185 Machine Transcription	1
OFC 190 Principles of Word Processing ²	2
OFC 231 Business Communications	3
ACC 131 Bookkeeping I or	
ACC 201 Principles of Accounting	3
	<u>16</u>
Minimum Hours Required	35

¹Students may be placed in typing courses based on proficiency level determined by previous training, experience and/or placement tests. If students place out, any OFC course may be taken to supplement the minimum hours required.

²OFC 190 is equivalent to 179, 182 and 185

OFFICE TECHNOLOGY -- LEGAL SECRETARY OPTION

Eastfield only

(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 Sciences Degree is awarded for successful completion.

	CREDIT HOURS
SEMESTERS I and II	
Core Curriculum	37
	<u>37</u>
SEMESTER III	
OFC 231 Business Communications	3
SC 101 Introduction to Speech Communication	3
PSY 131 Applied Psychology and Human Relations or	
HD 105 Basic Processes of Interpersonal Relationships	3
OFC 185 Basic Machine Transcription ²	1
OFC 282 Word Processing Applications	1
OFC 273 Advanced Typing Applications ¹	2
HUM 101 Introduction to the Humanities	3
	<u>16</u>
SEMESTER IV	
BUS 234 Business Law	3
OFC 167 Legal Terminology and Transcription ...	3
OFC 274 Legal Secretarial Procedures	3
OFC 285 Applied Machine Transcription	1
+ Elective(s)	3
OFC 703 Cooperative Work Experience or (3)	
OFC 704 Cooperative Work Experience	4
	<u>16-17</u>
Minimum Hours Required	69

+ Electives—must be taken in an area other than Office Technology.

¹Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests. If a student places out, any OFC course may be taken to supplement the minimum hours required.

²OFC 190 is equivalent to 179, 182 and 185

ORNAMENTAL HORTICULTURE TECHNOLOGY -- GREENHOUSE FLORIST OPTION

Richland only

(Associate Degree)

This option prepares a student to enter the florist industry. The program places emphasis on those skills required for success in wholesale greenhouse flower production, retail floral design and sales, and retail greenhouse florist production and sales. Upon graduation, a student is qualified to enter a wide number of positions in crop production, sales and distribution, floral design and flower shop management.

CREDIT HOURS

SEMESTER I

HLN 131	Horticulture Science	4
HLN 132	Landscape Trees	2
HLN 141	Floral Design	4
BIO 110	Introductory Botany or	
BIO 115	Biological Science	4
ENG 101	*Composition I or	
COM 131	Applied Communications	3
		<u>17</u>

SEMESTER II

HLN 133	Landscape Shrubs, Vines and Ground Cover	2
HLN 140	Herbaceous and Exotic Plants	3
ART 110	Basic Design I or	
ART 114	Drawing I	3
CIS 101	Introduction to Computer Applications and Concepts	4
MTH 111	*Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
PSY 101	Introduction to Psychology* or	
PSY 131	Applied Psychology and Human Relations	3
		<u>18</u>

SEMESTER III

HLN 134	Interior Plant Identification	2
HLN 227	Greenhouse Horticulture	4
HLN 252	Flower Shop Management	3
MKT 206	Principles of Marketing or	
MKT 137	Principles of Retailing	3
SC 101	Introduction to Speech Communication	3
Elective	Any Non-HLN Course	3
		<u>18</u>

SEMESTER IV

HLN 146	Fundamentals of Landscape Planning	3
HLN 249	Foliage Plants and Interiorscaping	3
HLN 248	Advanced Floral Design	3
HLN 246	Problems and Practices in Industry or	
HLN 703	Cooperative Work Experience	3
ACC 201*	Principles of Accounting I or	
ACC 131	Bookkeeping I	3
		<u>15</u>

Minimum Hours Required 68

*Indicates the preferred class in transferring to four-year institutions.

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.

ORNAMENTAL HORTICULTURE -- INTERIORESCAPE OPTION

Richland only

(Associate Degree)

	CREDIT HOURS
SEMESTER I	
HLN 131 Horticulture Science	4
HLN 132 Landscape Trees	2
HLN 141 Floral Design	4
HLN 145 Landscape Development I	3
HLN 146 Fundamentals of Landscape Planning	3
BIO 110 Introductory Botany or	4
BIO 115 Biological Science	(4)
	20
SEMESTER II	
HLN 133 Landscape Shrubs, Vines and Ground Cover	2
HLN 140 Herbaceous and Exotic Plants	3
HLN 147 Landscape Development II	3
ENG 101 *Composition I or	3
COM 131 Applied Communications	(3)
PSY 101 Introduction to Psychology* or	
PSY 131 Applied Psychology and Human Relations	3
SC 101 Introduction to Speech Communication	3
	17
SEMESTER III	
HLN 134 Interior Plant Identification	2
HLN 227 Greenhouse Horticulture	4
HLN 231 Landscape Design	4
MTH 111* Mathematics for Business and Economics I or	3
MTH 130 Business Mathematics	(3)
ART 110 Design I or	
ART 114 Drawing I	3
	16
SEMESTER IV	
HLN 238 Landscape Management	3
HLN 703 Cooperative Work Experience or	3
HLN 246 Problems and Practices in Industry	(3)
HLN 249 Foliage Plants and Interiorscaping	3
CIS 101 Introduction to Computer Applications and Concepts	4
Elective Any Non-HLN Course	3
	16
Minimum Hours Required	69

*Indicates the preferred class in transferring to 4-year institutions.

ORNAMENTAL HORTICULTURE -- INTERIORESCAPE

Richland only

(Certificate)

	CREDIT HOURS
SEMESTER I	
HLN 131 Horticulture Science	4
HLN 134 Interior Plant Identification	2
HLN 141 Floral Design	4
HLN 145 Landscape Development I	3
HLN 146 Fundamentals of Landscape Planning	3
MTH 111* Mathematics for Business and Economics I or	3
MTH 130 Business Mathematics	(3)
	19
SEMESTER II	
HLN 140 Herbaceous and Exotic Plants	3
HLN 147 Landscape Development II	3
HLN 249 Foliage Plants and Interiorscaping	3
HLN 703 Cooperative Work Experience	3
Elective	3
	15
Minimum Hours Required	34

*Indicates the preferred class in transferring to 4-year institutions.

ORNAMENTAL HORTICULTURE TECHNOLOGY - LANDSCAPE MANAGEMENT OPTION

Richland only

(Associate Degree)

This option prepares the student to enter the landscape contracting and the landscape installation and maintenance businesses. The student expands his preparation to meet his own specific goals through directing two semesters of cooperative work experience toward areas in which he desires greater preparation. Landscape management is the fastest growing field in ornamental horticulture and provides excellent employment opportunities. A student completing this option is also well prepared for work in city park departments and in state and federal park development.

CREDIT HOURS

SEMESTER I

HLN 131	Horticulture Science	4
HLN 132	Landscape Trees	2
HLN 145	Landscape Development I	3
HLN 146	Fundamentals of Landscape Planning	3
BIO 110	Introductory Botany or	
BIO 115	Biological Science	4
ENG 101	*Composition I or	
COM 131	Applied Communications	3
		<u>19</u>

SEMESTER II

HLN 133	Landscape Shrubs, Vines and Ground Cover	2
HLN 140	Herbaceous and Exotic Plants	3
HLN 147	Landscape Development II	3
CIS 101	Introduction to Computer Applications and Concepts	4
MTH 111*	Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
SC 101	Introduction to Speech Communication	3
		<u>18</u>

SEMESTER III

HLN 134	Interior Plant Identification	2
HLN 231	Landscape Design	4
HLN 246	Problems and Practices in Industry or	
HLN 703	Cooperative Work Experience	3
ACC 201	Principles of Accounting I* or	
ACC 131	Bookkeeping I	3
PSY 101	Introduction to Psychology* or	
PSY 131	Applied Psychology and Human Relations	3
Elective	Any Non-HLN Course	3
		<u>18</u>

SEMESTER IV

HLN 238	Landscape Management	3
HLN 249	Foliage Plants and Interiorscaping	3
HLN 250	Advanced Landscape Planning	3
HLN 713	Cooperative Work Experience	3
ART 110	Design I or	
ART 114	Drawing I	3
		<u>15</u>

Minimum Hours Required 70

*Indicates the preferred class in transferring to four-year institutions.

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.

ORNAMENTAL HORTICULTURE TECHNOLOGY – LANDSCAPE NURSERY OPTION

Richland only

(Associate Degree)

This option prepares a student to enter both the landscaping industry and the nursery industry at a technician level. The program places emphasis on those skills required for success in landscape service, nursery production and landscape planning businesses. A student who completes this training is prepared for work in park and recreation departments, production nurseries, industrial parks and gardens.

	CREDIT HOURS
SEMESTER I	
HLN 131 Horticulture Science	4
HLN 132 Landscape Trees	2
HLN 145 Landscape Development I	3
HLN 146 Fundamentals of Landscape Planning	3
BIO 110 Introductory Botany or	
BIO 115 Biological Science	4
ENG 101 *Composition I or	
COM 131 Applied Communications	3
	<u>19</u>
SEMESTER II	
HLN 133 Landscape Shrubs, Vines and Ground Cover	2
HLN 140 Herbaceous and Exotic Plants	3
HLN 147 Landscape Development II	3
CIS 101 Introduction to Computer Applications and Concepts	4
MTH 111* Mathematics for Business and Economics I or	
MTH 130 Business Mathematics	3
SC 101 Introduction to Speech Communication	3
	<u>18</u>
SEMESTER III	
HLN 227 Greenhouse Horticulture	4
HLN 231 Landscape Design	4
HLN 233 Nursery Operations	3
HLN 235 Propagation of Woody Ornamental Plants	2
ART 110 Design I or	
ART 114 Drawing I	3
PSY 101 Introduction to Psychology* or	
PSY 131 Applied Psychology and Human Relations	3
	<u>19</u>

SEMESTER IV

HLN 238 Landscape Management	3
HLN 246 Problems and Practices in Industry or	
HLN 703 Cooperative Work Experience	3
HLN 249 Foliage Plants and Interiorscaping	3
HLN 250 Advanced Landscape Planning	3
Elective Any Non-HLN Course	3
	<u>15</u>

Minimum Hours Required 71

*Indicates the preferred class in transferring to four-year institutions.

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.

ORNAMENTAL HORTICULTURE TECHNOLOGY -- FLORIST CERTIFICATE

Richland only

(Certificate)

This program prepares the student to enter positions in floral design, retail flower shop operations, and sales and distribution of flowers and florist supplies.

CREDIT
HOURS

SEMESTER I

HLN 141	Floral Design	4
ACC 201*	Principles of Accounting I or	
ACC 131	Bookkeeping or	
MGT 157	Small Business Bookkeeping and Accounting	3
ART 110	Design I or	
ART 114	Drawing I	3
MTH 130	Business Mathematics	3
PSY 101	Introduction to Psychology* or	
PSY 131	Applied Psychology and Human Relations	3
		<u>16</u>

SEMESTER II

HLN 133	Landscape Shrubs, Vines and Ground Cover	2
HLN 134	Interior Plant Identification	2
HLN 140	Herbaceous and Exotic Plants	3
HLN 248	Advanced Floral Design	3
HLN 252	Flower Shop Management	3
HLN 703	Cooperative Work Experience	3
		<u>16</u>

Minimum Hours Required 32

*Indicates the preferred class in transferring to four-year institutions.

ORNAMENTAL HORTICULTURE TECHNOLOGY -- LANDSCAPE GARDENER CERTIFICATE

Richland only

(Certificate)

This program prepares the student to enter positions in landscape construction, park maintenance, home landscape and garden services, and garden center and nursery sales. Through the selection of electives and occupational experiences the student can guide his training toward specific jobs.

CREDIT
HOURS

SEMESTER I

HLN 131	Horticulture Science	4
HLN 132	Landscape Trees	2
HLN 146	Fundamentals of Landscape Planning ..	3
PSY 101	Introduction to Psychology* or	
PSY 131	Applied Psychology and Human Relations	3
MTH 111	*Mathematics for Business and Economics I or	
MTH 130	Business Mathematics	3
		<u>15</u>

SEMESTER II

HLN 133	Landscape Shrubs, Vines and Ground Cover	2
HLN 134	Interior Plant Identification	2
HLN 140	Herbaceous and Exotic Plants	3
HLN 145	Landscape Development I	3
HLN 703	Cooperative Work Experience	3
Elective	.....	3
		<u>16</u>

Minimum Hours Required 31

*Indicates the preferred class in transferring to four-year institutions.

OUTBOARD MARINE ENGINE MECHANICS

Cedar Valley only

(Certificate)

This program is designed to train students to meet entry level requirements in the field of outboard marine engine mechanics. This will include theory, diagnosis, repair, overhaul and maintenance of outboard marine engines. Included in this program is the study of outboard marine engine fuel, electrical and ignition systems, engine overhaul and tune-up, and lower units. Throughout the entire program an emphasis is placed on accepted shop techniques used throughout the outboard marine engine service industry.

Since not all courses in this program are transferable, students enrolling in this program who may plan to transfer to a four-year institution should consult with an advisor or counselor regarding transfer requirements.

	CREDIT HOURS
SEMESTER I	
OE 144 Outboard Engine Service Principles	4
OE 145 Outboard Engine Tune-up	4
OE 146 Outboard Engine Powerhead Overhaul . .	4
+ Elective	3
	15
SEMESTER II	
OE 147 Outboard Engine Lower Unit Overhaul	4
OE 148 Outboard Engine Electrical Systems . . .	4
OE 724 Cooperative Work Experience	4
+ Elective	3
	15
Minimum Hours Required	30

+ Elective—must be selected from the following:

COM 131	Applied Communications or	
ENG 101	Composition I or	
SC 101	Introduction to Speech Communication	3
MTH 139	Applied Mathematics or	
MTH 195	Technical Mathematics	3

PATTERN DESIGN

El Centro only

(Associate Degree)

The pattern designer converts the fashion sketch or original garment into an industrial paper pattern used in the mass production of clothing. Drafting is the skill of developing a flat pattern with measurements. Draping is the skill of developing a pattern by placing cloth over a dress form. Upon completion of the program, the student enters a women's wear or children's wear manufacturing company as an assistant in the pattern department.

CREDIT HOURS

SEMESTER I

DES 110	Basic Color Theory and Application (1st 8 weeks)	3
DES 128	Introduction to Mass Production and Apparel	2
DES 129	Industrial Garment Construction (1st 8 weeks)	1
DES 234	History of Costume	3
PDD 151	Pattern Drafting I (2nd 8 weeks)	3
ENG 101	Composition I	3
HUM 101	Introduction to the Humanities or	
PHI 101	Introduction to Philosophy	3
		<u>18</u>

SEMESTER II

DES 135	Textiles	3
DES 136	Fashion Sketching	3
DES 235	History of Costume	3
PDD 152	Pattern Drafting II (1st 8 weeks)	3
PDD 153	Pattern Drafting III (2nd 8 weeks)	3
SC 101	Introduction to Speech Communication	3
		<u>18</u>

SEMESTER III

DES 229	Advanced Garment Construction	3
PDD 254	Pattern Drafting IV (1st 8 weeks)	3
PDD 255	Pattern Drafting V (2nd 8 weeks)	3
PSY 101	Introduction to Psychology or	
HD 105	Basic Processes of Interpersonal Relationships	3
MTH 130	Business Mathematics	3
		<u>15</u>

SEMESTER IV

PDD 256	Pattern Drafting VI (1st 8 weeks)	3
PDD 257	Pattern Drafting VII (2nd 8 weeks)	3
DES 141	Grading or	(1)
PDD 702	Cooperative Work Experience or	(2)
PDD 703	Cooperative Work Experience or	(3)
PDD 704	Cooperative Work Experience	4
+ Elective	.....	3
Elective	.....	3
		<u>13-16</u>

Minimum Hours Required 64

+ Elective—must be selected from the following:

GVT 201	American Government	3
HUM 101	Introduction to the Humanities	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.

PHYSICAL FITNESS TECHNOLOGY

North Lake only

(Associate)

This program prepares students for employment in the physical fitness industry. Students in this program acquire skills in conducting physical fitness and health risk assessments, prescribing exercise and lifestyle change programs, and instructing individuals and groups in physical fitness and health promotion activities. Areas studied include health risk appraisal, nutrition and weight control, smoking cessation, stress management, body composition analysis, and the development of joint flexibility, muscular strength and endurance, and aerobic capacity. The students acquire the knowledge and skills to supervise the use of physical fitness facilities and to provide exercise leadership and programming.

Upon successful completion of the program, the student will receive an Associate in Applied Sciences Degree and will be prepared to sit for national certification examinations.

	CREDIT HOURS
SEMESTER I	
ENG 101 Composition I	3
BIO 120 Introduction to Human Anatomy and Physiology	4
PEH 115 Physical Fitness	1
PFT 101 Exercise Science	3
PFT 120 Fitness and Exercise Testing I	4
	15
SEMESTER II	
BIO 121 Introduction to Human Anatomy and Physiology	4
Mathematics Requirement**	3
SC 101 Introduction to Speech Communication	3
PFT 140 Physical Fitness Theory and Instruction ..	4
PEH Activity*	1
	15
SEMESTER III	
PFT 130 Basic Nutrition	3
PFT 200 Instruction in Lifestyle Change	3
PFT 230 Prevention and Care of Exercise Injury ..	3
PFT 290 Practical Application in Physical Fitness Technology I	1
+ Elective	3-4
+ + Elective Humanities/Fine Arts	3
	16-17

SEMESTER IV

PSY 131 Applied Psychology and Human Relations	3
PFT 212 Exercise Programming	3
PFT 240 Practical Aspects of the Fitness Industry	3
PFT 291 Practical Application in Physical Fitness Technology II	1
PFT 703 Cooperative Work Experience or PFT 704 Cooperative Work Experience	3-4
Elective Any Non-PFT Course	3
	16-17

Minimum Hours Required 62

+ Elective—must be selected from the following:

PEH 226 Advanced Life Saving	1
PEH 257 Advanced First Aid and Emergency Care ..	3
PFT 220 Fitness and Exercise Testing II	4
PFT 250 Psychosocial Aspects of Sport and Exercise ..	3
PFT 281 Selected Topics in Physical Fitness Technology ..	1
PFT 283 Selected Topics in Physical Fitness Technology ..	3

+ + Elective—must be selected from the following:

ART 110 Design I	3
DAN 165 Beginning Contemporary Dance	2
DAN 234 Introduction to Composition I	3
MUS 113 Foundations of Music	1
PHI 103 Critical Thinking	3
PHI 203 Ethics	3
THE 106 Acting I	3
THE 211 Broadcast Communications	3

*PEH Activity - Any Physical Education activity course.

**Mathematics Requirement - Any 100 level Mathematics course.

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.

PHYSICAL FITNESS TECHNOLOGY

North Lake only

(Certificate)

This certificate program in physical fitness technology prepares students to make physical fitness assessments, prescribe exercise programs, and instruct individuals and groups in physical fitness activities. This one-year program is particularly appropriate for those who want to expand or upgrade their skills, e.g. those who already have a degree and/or are employed in a physical fitness or related field. Students completing the certificate program have the option to continue their study toward the completion of the Associate Degree.

		CREDIT HOURS
SEMESTER I		
BIO 120	Introduction to Human Anatomy and Physiology	4
ENG 101	Composition I	3
PFT 101	Exercise Science	3
PFT 120	Fitness and Exercise Testing I	4
PFT 130	Basic Nutrition	3
		<u>17</u>
SEMESTER II		
BIO 121	Introduction to Human Anatomy and Physiology	4
PFT 140	Physical Fitness Theory and Instruction	4
PFT 200	Instruction in Lifestyle Change	3
SC 101	Introduction to Speech Communication	3
		<u>14</u>
Minimum Hours Required		31*

*Student must have proof of current certification in First Aid and Cardiopulmonary Resuscitation (CPR) at the time the certificate is awarded.

RADIOLOGIC SCIENCES

El Centro only

(Associate Degree)

The Radiologic Sciences freshman student is provided a core curriculum of study related to the delivery of health care. The basic health core, along with the general education courses, enables the student to enter a specialized track of either Radiographic Technology or Diagnostic Medical Sonography. Each program track offers didactic and clinical education designed to meet the essentials for certification as specified by each accrediting agency. Upon completion, an Associate In Applied Sciences Degree is awarded.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, completion of the two prerequisite courses with at least a 2.5 grade point average or better, and completion of all requirements for admission as a full-time student to the college. Applicants are rank ordered for admission based on the grade point average earned on two prerequisite courses. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

	CREDIT HOURS
*CORE CURRICULUM	

PROGRAM PREREQUISITES

BIO 120	Introduction to Human Anatomy and Physiology or	
BIO 221	Anatomy and Physiology I	4
MTH 136	Mathematics for Allied Health or	
MTH 101	College Algebra	3
		<u>7</u>

SEMESTER I

RAD 110	Introduction to Radiologic Sciences I	2
BIO 121	Introduction to Human Anatomy and Physiology or	
BIO 222	Anatomy and Physiology II	4
+ Humanities Elective		3
ENG 101	Composition I	3
HD 105	Basic Processes of Interpersonal Relationships or	
PSY 101	Introduction to Psychology	3
		<u>15</u>

SEMESTER II

RAD 106	Introduction to Radiologic Sciences II	3
RAD 122	Computer Applications in Radiology	3
+ + Elective		3
PHY 118	Concepts in Physics	4
SC 101	Introduction to Speech Communication	3
		<u>16</u>

Minimum Hours Required 38

+ Humanities elective--must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
ENG (200 Level Literature Courses)		3
Foreign Language		

+ + Elective--Any NON-RAD course.

* For all first year students in Radiologic Sciences.

Upon successful completion of the academic requirements of the Core Curriculum, the student will begin the selected specialty track.

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.

RADIOLOGIC SCIENCES -- DIAGNOSTIC MEDICAL SONOGRAPHY

El Centro only

(Associate Degree)

The Diagnostic Medical Sonography program prepares the student to function as a medical sonographer.

The diagnostic medical sonographer performs sonography examinations using high frequency sound waves to visualize soft tissue structures, including the gall bladder, kidneys, pregnant uterus and other organs as requested by the physician.

This program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Diagnostic Medical Sonography.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, rank ordering by grade point, interviews and recommendation letters, and completion of all requirements for admission as a full-time student to the college. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

CREDIT HOURS

SEMESTERS I AND II

Core Curriculum	38
	<u>38</u>

FALL SEMESTER III

DMS 208 Cross Sectional Anatomy	3
DMS 210 Acoustical Physics	3
DMS 216 Ultrasound Science I	2
DMS 217 Clinical Education I	3
DMS 218 Clinical Medicine I	4
	<u>15</u>

SPRING SEMESTER IV

DMS 222 Pathophysiology	3
DMS 225 Clinical Medicine II	4
DMS 227 Instrumentation/Standardization	2
DMS 229 Clinical Education II	4
	<u>13</u>

SUMMER SESSION III

DMS 237 Clinical Medicine III	1
DMS 252 Clinical Education III	2
	<u>3</u>

SUMMER SESSION IV

DMS 242 Clinical Medicine IV	1
DMS 253 Clinical Education IV	2
	<u>3</u>

Minimum Hours Required 72

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.

RADIOLOGIC SCIENCES -- DIAGNOSTIC MEDICAL SONOGRAPHY

El Centro only

(Certificate Only)

The Diagnostic Medical Sonography Certificate Option is for students having at least a previous Associate Degree in a designated allied health field or a B.S. degree with a major in a science discipline. Potential students will be considered on an individual basis to determine if they have an adequate background in anatomy and physiology, math and physics. Upon completion, a certificate will be awarded.

The diagnostic medical sonographer performs sonography examinations using high-frequency sound waves to visualize soft tissue structures including the gall bladder, kidneys, pregnant uterus, and other organs as requested by the physician.

This program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Diagnostic Medical Sonography.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, rank ordering by grade point, interviews and recommendation letters, and completion of all requirements for admission as a full-time student to the college. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

CREDIT
HOURS

PREREQUISITES:

Certificate applicants must have two of the three common learning courses prior to acceptance into the program. These courses include:

MTH 136	Mathematics for Allied Health or	
MTH 101	College Algebra	3
ENG 101	Composition I	3
SC 101	Introduction to	
	Speech Communication	3
		<u>9</u>

FALL SEMESTER I

DMS 208	Cross Sectional Anatomy	3
DMS 210	Acoustical Physics	3
DMS 216	Ultrasound Science I	2
DMS 217	Clinical Education I	3
DMS 218	Clinical Medicine I	4
		<u>15</u>

SPRING SEMESTER II

DMS 222	Pathophysiology	3
DMS 225	Clinical Medicine II	4
DMS 227	Instrumentation/Standardization	2
DMS 229	Clinical Education II	4
		<u>13</u>

SUMMER SESSION III

DMS 237	Clinical Medicine III	1
DMS 252	Clinical Education III	2
		<u>3</u>

SUMMER SESSION IV

DMS 242	Clinical Medicine IV	1
DMS 253	Clinical Education IV	2
		<u>3</u>

Minimum Hours Required 34

RADIOLOGIC SCIENCES -- RADIOGRAPHY TECHNOLOGY

El Centro only

(Associate Degree)

The Radiography Technology program prepares the student for a career as a medical radiographer (X-ray technologist).

The medical radiographer assists the radiologist and other physicians in the use of radiographs to examine patients for broken bones, ulcers, tumors, disease or malfunctioning of various body organs. The radiographer positions the patient and operates radiographic equipment.

This program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT).

	CREDIT HOURS
SEMESTERS I AND II	
Core Curriculum	38
	<u>38</u>
SUMMER SESSION I (10 Weeks)	
RAD 112 Radiographic Positioning and Osteology	3
RAD 114 Principles of Radiographic Exposure	2
RAD 118 Applied Physics	2
RAD 119 Clinical Education Orientation I	2
	<u>9</u>
SEMESTER III	
RAD 227 Clinical Education I	4
RAD 236 Radiographic Positioning and Osteology II	3
RAD 237 Principles of Radiologic Exposure II	3
	<u>10</u>
SEMESTER IV	
RAD 209 Radiographic Pathology	2
RAD 244 Clinical Education II	6
RAD 247 Routine Special Studies	1
RAD 251 Radiation Protection and Radiation Biology	2
	<u>11</u>
SUMMER SESSION II (10 Weeks)	
RAD 248 Clinical Education III (Externship)	4
	<u>4</u>
Minimum Hours Required	72

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.

REAL ESTATE

Cedar Valley, North Lake and Richland only

(Associate Degree)

The program in real estate is designed to develop the fundamental skills, attitudes and experiences which enable the student to function in decision-making positions in the real estate profession. Successful completion of the program leads to the Associate in Applied Sciences Degree and may be applied toward licensing requirements as determined by the Texas Real Estate Commission.

	CREDIT HOURS
SEMESTER I	
RE 130 Real Estate Principles	3
RE 131 Real Estate Finance	3
BUS 105 Introduction to Business	3
ENG 101 Composition I	3
MTH 130 Business Mathematics or	
MTH 111 Mathematics for Business and	
Economics I or	
MTH 139 Applied Mathematics	3
	<u>15</u>
SEMESTER II	
RE 133 Real Estate Marketing	3
RE 135 Real Estate Appraisal-Residential or	
RE 134 Real Estate Appraisal-Commercial	3
RE 136 Real Estate Law	3
SC 101 Introduction to Speech	
Communication	3
ACC 201 Principles of Accounting I	3
	<u>15</u>
SEMESTER III	
RE 138 Promulgated Contract Forms	3
ECO 201 Principles of Economics I or	
ECO 105 Economics of Contemporary Social	
Issues	3
RE 704 Cooperative Work Experience I	4
CIS 101 Introduction to Computer Applications	
and Concepts	4
+ Elective Humanities/Fine Arts	3
	<u>17</u>
SEMESTER IV	
Elective Any Non-RE Course	3
+ + Elective Social/Behavioral Science	3
+ + + Elective	9
	<u>15</u>
Minimum Hours Required	62

+ 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
ENG 215	Studies in Literature	3
ENG 216	Studies in Literature	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
THE 101	Introduction to Theater	3
	Foreign Language	

+ + Elective—must be selected from the following:

ANT 101	Introduction to Anthropology	3
GVT 201	American Government	3
GVT 202	American Government	3
HD 104	Educational and Career Planning	3
HD 105	Basic Processes of Interpersonal Relationships	3
HD 106	Personal and Social Growth	3
HD 107	Developing Leadership Behavior	3
PSY 101	Introduction to Psychology	3
PSY 201	Developmental Psychology	3
PSY 205	Psychology of Personality	3
PSY 131	Applied Psychology and Human Relations	3
SOC 101	Introduction to Sociology	3
SOC 102	Social Problems	3

+ + + Recommended Electives:

MKT 230	Salesmanship	3
RE 230	Real Estate Office Management Brokerage	3
RE 233	Commercial and Investment Real Estate	3
RE 235	Property Management	3
RE 237	Residential Inspection for Real Estate Agents	3
RE 240	Special Problems in Real Estate	1
RE 241	Special Problems in Real Estate	3
RE 714	Cooperative Work Experience II	4

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.

RESPIRATORY CARE PROGRAM -- LEVEL I

El Centro only

(Certificate)

The Respiratory Care Program - Level I prepares individuals with entry-level skills for care of patients with pulmonary diseases. Diagnostic, technical and therapeutic procedures are taught to prepare students for entry into the field of Respiratory Care.

A Certificate of Completion is awarded for successful completion of the courses outlined below. This Certificate enables the graduate to apply for the Entry-Level Credential Examination of the National Board for Respiratory Care (NBRC). In order to be eligible to write this examination, a student must comply with the minimum standards for testing as required by the NBRC.

Upon successful completion of this program, the student is eligible to enroll in the Respiratory Care Program - Level II.

The Respiratory Care Program - Level I is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee for Respiratory Therapy Education (JRCRTE).

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, completion of program prerequisite courses with a cumulative grade point average of 2.5 or better, and completion of all requirements for admission as a full-time student to the college. Applicants are rank ordered on the grade point average earned on three prerequisite courses. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

	CREDIT HOURS
PREREQUISITES TO PROGRAM ADMISSION:	
MTH 136 Mathematics for Allied Health or	
MTH 101 College Algebra	3
CHM 115 Chemical Sciences or	
CHM 101 General Chemistry	4
BIO 120 Human Anatomy and Physiology or	
BIO 221 Anatomy and Physiology I	4
	<u>11</u>

SEMESTER I

RES 155 Technology I	4
RES 159 Structure and Function of the Cardiopulmonary System	3
RES 166 Pharmacology I	3
BIO 121 Human Anatomy and Physiology or	
BIO 222 Anatomy and Physiology	4
	<u>14</u>

SEMESTER II

RES 171 Technology II	6
RES 172 Basic Respiratory Pathology	4
ENG 101 Composition I	3
	<u>13</u>

SUMMER I (10 Weeks)

RES 176 Technology III	6
	<u>6</u>

Minimum Hours Required 44

RESPIRATORY CARE PROGRAM -- LEVEL II

El Centro only

(Associate Degree)

The Respiratory Care Program - Level II prepares students to become respiratory therapists and perform complex patient care procedures in specialized patient care units and diagnostic laboratories.

The Associate in Applied Sciences degree is awarded for successful completion of the program outlined below. A Certificate of Completion is also awarded to enable the graduate to apply for the Advanced Practitioner Examination of the National Board for Respiratory Care (NBRC).

In order to be eligible to write the Advanced Practitioner Examination, a student must comply with the minimum standards for testing as required by the National Board for Respiratory Care (NBRC).

The Respiratory Care Program - Level II is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Joint Review Committee for Respiratory Therapy Education (JRCRTE).

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, rank ordering by grade point average, and completion of all requirements for admission as a full-time student to the college. Contact the Health Occupations Admissions Office at El Centro College (746-2242) to receive an information packet.

CREDIT HOURS

PREREQUISITES FOR PROGRAM ADMISSION:

Successful completion of all course requirements of the Respiratory Care Program - Level I:

Respiratory Care - Level I Program Prerequisites	11
Respiratory Care - Level I	33
	<u>44</u>

SEMESTER III

RES 278	Technology IV	6
RES 275	Advanced Pathology/Pharmacology	3
SC 101	Introduction to Speech Communication	3
+	Humanities Elective	3
		<u>15</u>

SEMESTER IV

RES 280	Technology V	5
RES 282	Advanced Pulmonary Function	2
HD 105	Basic Processes of Interpersonal Relationships or	
PSY 101	Introduction to Psychology	3
+	Elective	3
		<u>13</u>

Minimum Hours Required 72

+ Humanities elective--must be selected from the following:

ART 104	Art Appreciation	3
HUM 101	Introduction to Humanities	3
MUS 104	Music Appreciation	3
PHI 101	Introduction to Philosophy	3
THE 101	Introduction to the Theatre	3
ENG (200 Level Literature Courses)	Foreign Language	3

++ Elective--Any NON-RES course.

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.

SMALL ENGINE MECHANICS

Cedar Valley only

(Certificate)

This program is designed to train students to meet entry level requirements in the field of small engine mechanics. This will include theory, diagnosis, repair, overhaul and maintenance of small engines used on lawn mowers, garden tractors, and other small equipment. Included in this program is the study of small engine carburetion and electrical systems, engine overhaul and tune-up, and belt, chain, and direct drive power systems. Throughout the entire program an emphasis is placed on accepted shop techniques used throughout the small engine powered equipment industry.

	CREDIT HOURS
SEMESTER I	
SE 154 Small Engine Service Principles	4
SE 155 Small Engine Tune-Up	4
SE 156 Small Engine Two-Stroke Overhaul	4
+ Elective	3
	15
SEMESTER II	
SE 157 Small Engine Four-Stroke Overhaul	4
SE 158 Small Engine Electrical Systems	4
SE 734 Cooperative Work Experience	4
+ Elective	3
	15
Minimum Hours Required	30

+ Elective—must be selected from the following:

COM 131	Applied Communications or	
ENG 101	Composition I or	
SC 101	Introduction to Speech Communication	3
MTH 139	Applied Mathematics or	
MTH 195	Technical Mathematics I	3

SOCIAL WORK ASSOCIATE -- GENERALIST

Eastfield only

(Associate Degree)

The Social Work Associate Program is designed to prepare individuals interested in working with people to obtain entry-level employment in public and private social service agencies. The social service worker is equipped with skills, knowledge, values, and sensitivity to effectively serve human needs in a variety of community settings. Students have the options to select courses that will prepare them to work in general social services or specialized social services for chemical abuse or the aging.

	CREDIT HOURS
SEMESTER I	
SW 101 Orientation to Social Services	3
SW 105 Basic Interviewing and Counseling Skills	3
SW 107 Abnormal Behavior	3
ENG 101 Composition I or	
COM 131 Applied Communications	3
PSY 101 Introduction to Psychology	3
	<u>15</u>
SEMESTER II	
SW 201 Introduction to Social Work	3
+ Elective Social Work	3
SC 101 Introduction to Speech Communication	3
SOC 101 Introduction to Sociology	3
Elective Any Non-SW Course	3
	<u>15</u>
SEMESTER III	
SW 219 Social Work Methods and Procedures	3
SW 229 Group Work Intervention	3
+ Elective Social Work	3
SW 703 Cooperative Work Experience or	
SW 704 Cooperative Work Experience	3-4
MTH 101 College Algebra or	
MTH 115 College Mathematics or	
MTH 130 Business Mathematics or	
MTH 202 Introductory Statistics	3
	<u>15-16</u>

SEMESTER IV

SW 232 Human Behavior and Social Environment	3
+ Elective Social Work	3
SW 713 Cooperative Work Experience or	
SA 714 Cooperative Work Experience	3-4
CIS 101 Introduction to Computer Applications and Concepts	4
SPA 101 Beginning Spanish or	
+ + Elective Humanities/Fine Arts	3
	<u>16-17</u>

Minimum Hours Required 61

+ Social Work Electives--must be selected from the following:

SA 109 Physiology of Addiction	3
SA 113 Alcoholism Counseling	3
SA 203 Alcoholism Treatment Models	3
SA 207 Prevention of Substance Abuse	3
SA 211 Family Intervention in Substance Abuse and Dependency	3
SA 215 Issues in Substance Abuse and Dependency	3
SW 111 Aging in America	3
SW 115 Adolescent Life Cycle	3
SW 205 Social Policies and Programs for the Aging	3
SW 209 Life Cycle of the Aged	3
SW 213 Health Status of the Aged	3
SW 217 Special Problems of Youth	3
SW 226 Nursing Home Activity Director Training	3

+ + Approved Humanities Elective--must be selected from the following:

HUM 101 Introduction to the Humanities	3
PHI 101 Introduction to Philosophy	3
PHI 103 Critical Thinking	3
PHI 105 Logic	3
PHI 202 Introduction to Social and Political Philosophy	3
PHI 203 Ethics	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.

SOCIAL WORK -- HUMAN SERVICES

Eastfield only

(Certificate)

This certificate program provides training in three areas: child development, social work, and interpreter training. Students will attain interdisciplinary competencies and select one area in which to do their cooperative work experience. Students completing this certificate may choose to obtain entry level jobs in the human services field or continue their associate degree work in one of the three areas.

	CREDIT HOURS
SEMESTER I	
SW 101 Orientation to Social Services	3
SW 105 Basic Interviewing and Counseling Skills	3
SW 107 Abnormal Behavior	3
CD 140 Early Childhood Development, 0-3 Years or	
CD 141 Early Childhood Development, 3-5 Years or	
ITP 140 Introduction to Deafness	3
CD 150 Nutrition, Health and Safety of the Young Child or	
ITP 141 American Sign Language I	3-4
ENG 101 Composition I	3
	<u>18-19</u>
SEMESTER II	
SW 232 Human Behavior and Social Environment	3
SW 703 Cooperative Work Experience	3
CD 203 Parents and the Caregiver/Teacher or	
ITP 144 Psychosocial Aspects of Deafness	3
CD 239 Studies in Child Guidance or	
ITP 248 Rehabilitation of the Multiply Handicapped Deaf	3
CD 253 Abuse Within The Family or (2)	
ITP 143 American Sign Language II	3-4
SC 101 Introduction to Speech Communication	3
	<u>18-19</u>
Minimum Hours Required	36

SUBSTANCE ABUSE COUNSELING

Eastfield only

(Associate Degree)

The Substance Abuse Counseling Program is designed to prepare qualified and competent graduates to enter the field of human services and to provide specialized services to individuals and their families who are experiencing the affects of substance abuse. Completers of the program will have the necessary educational requirements to become eligible for testing and certification as Certified Alcoholism and Drug Abuse Counselors (C.A.D.A.C.) and Licensed Chemical Dependency Counselor (L.C.D.C.). Students will gain required work experience as Counselors-in-Training (C.I.T.) upon completion of the required hours of classroom instruction. A special section of cooperative work experience will provide a structured supervised practicum in off-campus approved laboratory training sites.

CREDIT HOURS

SEMESTER I

SW 101	Orientation to Social Services	3
SW 105	Basic Interviewing and Counseling Skills	3
SA 109	Physiology of Addiction	3
ENG 101	Composition I	3
MTH 101	College Algebra or	
MTH 115	College Mathematics or	
MTH 130	Business Mathematics or	
MTH 202	Introductory Statistics	3
		15

SEMESTER II

SA 113	Alcoholism Counseling	3
SW 219	Social Work Methods and Procedures	3
PSY 101	Introduction to Psychology	3
SC 101	Introduction to Speech Communication	3
SOC 101	Introduction to Sociology	3
		15

SEMESTER III

SA 207	Prevention of Substance Abuse or	
SW 115	Adolescent Life Cycle	3
SA 211	Family Intervention in Substance Abuse and Dependency or	
SW 217	Special Problems of Youth	3
SW 229	Group Work Intervention	3
SW 703	Cooperative Work Experience or	
SW 704	Cooperative Work Experience	3-4
Elective	Any Non-SA or Non-SW Course	3
		15-16

SEMESTER IV

SA 203	Alcoholism Treatment Models or	
+ Elective		3
SA 215	Issues in Substance Abuse and Dependency or	
+ + Elective		3
SA 714	Cooperative Work Experience	4
CIS 101	Introduction to Computer Applications and Concepts	4
SPA 101	Beginning Spanish or	
+ + + Elective	Humanities/Fine Arts	3
		16-17

Minimum Hours Required 62

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

SW 107	Abnormal Behavior	3
SW 111	Aging in America	3
SW 201	Introduction to Social Work	3
SW 209	Life Cycle of the Aged	3
SW 228	Special Topics in Social Services	3
SW 232	Human Behavior and Social Environment	3

+ + Electives—must be selected from the following:

CD 127	Early Childhood Development, 5-12	3
CD 253	Abuse Within the Family	3
PSY 103	Human Sexuality	3
PSY 201	Developmental Psychology	3
PSY 205	Psychology of Personality	3
SOC 103	Human Sexuality	3
SOC 203	Marriage and Family	3
SOC 204	American Minorities	3
SOC 210	Field Studies in American Minorities	3

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

HUM 101	Introduction to the Humanities	3
PHI 101	Introduction to Philosophy	3
PHI 103	Critical Thinking	3
PHI 105	Logic	3
PHI 202	Introduction to Social and Political Philosophy	3
PHI 203	Ethics	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.

SUBSTANCE ABUSE COUNSELING

Eastfield only

(Certificate)

The Substance Abuse Counseling certificate is designed to provide cross-training for helping professionals in other disciplines, i.e. bachelor and master level social workers, counselors, psychologists, nurses, criminal justices, etc. It is also trains students for employment as therapy technicians with the Counselor-in-Training certification. After completing two years' work experience in an organization that serves the substance dependent individual, students may qualify for testing and Certified Alcoholism and Drug Abuse Certification (C.A.D.A.C.) and Licensed Chemical Dependency Counselor (L.C.D.C.).

	CREDIT HOURS
SEMESTER I	
SW 101 Orientation to Social Services	3
SW 105 Basic Interviewing and Counseling Skills	3
SA 109 Physiology of Addiction	3
SA 203 Alcoholism Treatment Models	3
SA 207 Prevention of Substance Abuse	3
ENG 101 Composition I	3
	<u>18</u>
SEMESTER II	
SA 113 Alcoholism Counseling	3
SA 211 Family Intervention in Substance Abuse and Dependency or	
SA 215 Issues in Substance Abuse Abuse and Dependency or and Dependency or	
SA 714 Cooperative Work Experience	3-4
SC 101 Introduction to Speech Communication	3
SW 219 Social Work Methods and Procedures	3
SW 229 Group Work Intervention	3
	<u>15-16</u>
Minimum Hours Required	34

SURGICAL TECHNOLOGY

El Centro only

(Certificate)

The one year certificate program in Surgical Technology teaches the student to provide services in the operating room under the supervision of the operating room director. The technologist, as part of the operating team, aids in providing for the safety, cleanliness and efficiency necessary for good patient care in the operating room. The technologist prepares the materials for use at the operating room table and assists in the use of these materials during surgical procedures.

The Surgical Technology program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA) in cooperation with the Accreditation Review Committee for Educational Programs in Surgical Technology.

ADMISSION TO THE PROGRAM:

Admission requirements include:

1. Completion of all requirements for admission as a full-time student to the college.
2. High school diploma or GED.
3. Satisfactory scores on assessment exams.
4. An information session.
5. Must complete prerequisites to program with a 2.5 G.P.A. or better.
6. Must have a G.P.A. of 2.5 or better from previous college courses. Developmental course grades are not included in the G.P.A. calculation.
7. Applicants are rank ordered for admission based on the grade point average earned on two prerequisite courses.

Contact the Testing Center at El Centro College (746-2178) to sign up for the assessment exam. Call Health Occupational Admissions (746-2242) to receive an information packet.

CREDIT
HOURS

PREREQUISITES TO PROGRAM ADMISSION

ENG 101	Composition I	3
BIO 123	Applied Anatomy and Physiology	
	or	
BIO 120	Introduction to Human Anatomy and Physiology	4
		<u>7</u>

SEMESTER I (FALL)

BIO 121	Introduction to Anatomy and Physiology*/**	(4)
HD 105	Basic Processes of Interpersonal Relationships*	3
SGT 145	Medical Terminology***	2
SGT 146	Surgical Pharmacology***	2
SGT 147	Surgical Techniques	8
		<u>15-19</u>

SEMESTER II (SPRING)

SC 101	Introduction to Speech Communication	3
SGT 151	Surgical Procedures	8
		<u>11</u>

SUMMER SESSION (9 weeks)

SGT 158	Clinical Procedures	6
SGT 159	Seminar	1
		<u>7</u>

Minimum Hours Required 40

*Support courses may be completed before, but not after, the semester indicated.

**If BIO 120 is taken as the prerequisite biology, then BIO 121 must be taken in fall semester. BIO 115 is recommended prior to BIO 120 if no previous high school biology.

***May be taken prior to program admission with Surgical Technology Program Coordinator's approval.

A "C" grade or better is required in all courses.

VETERINARY TECHNOLOGY

Cedar Valley only

(Associate Degree)

This program is designed to help meet the need for graduate veterinary technicians as indicated by the American Veterinary Medical Association. The graduate serves primarily as an assistant to veterinarians in private practice, functions in biological research or serves to meet the needs of allied health industries.

The Veterinary Technology curriculum is designed to provide the graduate with information, experience and skills needed to perform all technical duties in a practice, excluding diagnosis, prescribing and surgery. The Veterinary Technology program is accredited by the Committee on Animal Technician Activities and Training of the American Veterinary Medical Association and graduates are qualified to take the Texas Veterinary Medical Association Examination to become a Registered Veterinary Technician (RVT).

Admission to the Veterinary Technology program is limited and applicants should be assessed and advised prior to enrolling in the program. Students are encouraged to have a good academic background in English, mathematics, and the biological sciences.

	CREDIT HOURS
PREREQUISITES	
BIO 101 Introductory Biology	4
ENG 101 Composition I	3
MTH 139 Applied Mathematics	1
SC 101 Introduction to Speech Communication	3
	<u>13</u>

SEMESTER I	
VT 113 Medical Terminology	1
VT 114 Introduction to Veterinary Technology	4
VT 121 Veterinary Anatomy and Physiology I	4
OFC 145 Contemporary Topics in Office Technology	3
	<u>12</u>

SEMESTER II	
VT 120 Animal Care and Sanitation I	1
VT 122 Animal Behavior	2
VT 131 Veterinary Anatomy and Physiology II	4
PSY 131 Applied Psychology and Human Relations	3
+ Elective Humanities/Fine Arts	3
	<u>13</u>

SUMMER SESSION

VT 132 Pharmacology	3
VT 134 Animal Care and Sanitation II	1
VT 135 Clinical Pathology I	5
	<u>9</u>

SEMESTER III

VT 211 Anesthetics and Surgical Assistance ...	4
VT 212 Large Animal Assisting Techniques ...	4
VT 213 Clinical Pathology II	5
VT 214 Animal Care and Sanitation III	1
	<u>14</u>

SEMESTER IV

VT 220 Animal Care and Sanitation IV	1
VT 221 Radiographic Principles and Practices	3
VT 222 Veterinary Nursing	4
VT 223 Laboratory Animal Medicine	3
Elective Any Non-VT Course	3
	<u>17</u>

SEMESTER VI (SUMMER SESSION)

VT 703 Cooperative Work Experience	3
	<u>3</u>

Minimum Hours Required 65

+ Electives—must be selected from the following:

ART 104 Art Appreciation	3
ENG 200-Level Literature	3
Foreign Language	3-4
HUM 101 Introduction to Humanities	3
MUS 104 Music Appreciation	3
PHI 101 Introduction to Philosophy	3
THE 101 Introduction to Theater	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.

VIDEO TECHNOLOGY

North Lake only

(Associate Degree)

The Video Technology program is designed to prepare students for entry level or advanced employment in the video industry. Opportunities in medicine, entertainment, advertising, industry, broadcast, cable, education, military, government, and business are among the career options. Students will develop skills and knowledge necessary to plan, budget, produce, and perform post production of various video projects.

Students wishing to earn an Associate in Applied Sciences Degree with a major in Video Technology must complete the following courses:

	CREDIT HOURS
SEMESTER I	
VFT 101 Introduction to Video Technology	3
VFT 103 Television Lighting	3
VFT 106 Video Production I	4
ENG 101 Composition I	3
MTH 101 College Algebra or	
MTH 195 Technical Mathematics I	3
	<u>16</u>
SEMESTER II	
VFT 110 Video Production II	4
VFT 112 Video Editing and Post Production I	4
VFT 115 Audio Production	3
SC 101 Introduction to Speech	
Communication	3
Elective Social/Behavioral Science	3
	<u>17</u>
SEMESTER III	
VFT 203 Video Production III	4
VFT 205 Broadcast Engineering I	3
HUM 101 Introduction to the Humanities or	
ART 104 Art Appreciation or	
MUS 104 Music Appreciation	3
Elective Any Non-VFT Course	3
	<u>13</u>
SEMESTER IV	
VFT 213 Video Editing and Post	
Production II	4
VFT 214 Business Aspects of Video	
Management	3
VFT 703 Cooperative Work Experience or (3)	
VFT 704 Cooperative Work Experience	4
CIS 101 Introduction to Computer Applications	
and Concepts	4
+ Elective	3
	<u>17-18</u>

Minimum Hours Required 64

+ Elective--must be selected from the following:

VFT 210	Video Production IV	4
VFT 215	Broadcast Engineering II	3
VFT 218	Scriptwriting and Property Management	3
VFT 220	Computer Applications to Video Production	3
VFT 226	Music Video Production	3
VFT 232	Broadcast, Cable, and Satellite Technology	3
VFT 713	Cooperative Work Experience or	3
VFT 714	Cooperative Work Experience	(4)

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 institutions of their choice.

VISUAL COMMUNICATIONS

Brookhaven only

(Associate Degree)

This program will provide entry level skills for careers in the field of visual communications, including graphic design, illustration, art direction, advertising art, and computer graphics. Courses in the program provide for the development of creative, technical, interpersonal, and communication skills necessary to function effectively in a freelance or staff artist position with a design studio or agency.

CREDIT
HOURS

SEMESTER I

ART 110	Design I or	
VC 115	Applied Design	3
ART 114	Drawing I	3
ENG 101	Composition I or	
COM 131	Applied Communications	3
VC 110	Introduction to Visual Communications	3
VC 111	History of Visual Communications	3
		<u>15</u>

SEMESTER II

ART 115	Drawing II	3
SC 101	Introduction to Speech Communication	3
VC 122	Copywriting and Business Communications	3
VC 123	Graphic Design and Typography	3
VC 124	Beginning Illustration	3
VC 125	Portfolio Review	2
		<u>17</u>

SEMESTER III

MTH 116	College Mathematics II or	
MTH 130	Business Mathematics or	
MTH 111	Mathematics for Business and Economics*	3
+ Elective		3
		<u>6</u>

SEMESTER IV

VC 206	Advanced Graphic Design	3
VC 207	Reprographics	3
VC 213	Beginning Computer Graphics	4
VC 290	Design Studio Practicum I or	3
VC 703	Cooperative Work Experience or	(3)
VC 704	Cooperative Work Experience	(4)
+ + Elective		3
		<u>16-17</u>

SEMESTER V

VC 205	Professional Practices	3
VC 208	Advanced Illustration	3
VC 209	Advanced Presentations	3
VC 214	Beginning Computer Animation or	
VC 215	Desktop Graphics or	4
VC 219	Special Problems in Computer Graphics	(3)
VC 291	Design Studio Practicum or	3
VC 713	Cooperative Work Experience or	(3)
VC 714	Cooperative Work Experience or	(4)
+ + + Elective		(3-4)
		<u>15-17</u>

Minimum Hours Required 69

+ 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
CIS 103	Introduction to Computer Information Systems	3
MGT 153	Small Business Management	3
MKT 206	Principles of Marketing	3

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

HD 105	Basic Processes of Interpersonal Relationships	3
HD 106	Personal and Social Growth	3
HUM 101	Introduction to the Humanities	3
MUS 104	Music Appreciation	3
PHI 102	Introduction to Philosophy	3
PSY 131	Applied Psychology and Human Relations	3

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

ART 111	Design II	3
ART 118	Creative Photography for the Artist	3
ART 201	Drawing III	3
ART 220	Printmaking I	3
PHO 123	Commercial Photography II	3
VC 199	Contemporary Topics in Visual Communications	1
VC 219	Special Problems in Computer Graphics	3
VC 299	Studio Applications in Visual Communications	2

*Students should consult an advisor prior to enrolling in any Mathematics class; prerequisites and assessment test scores are required.

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.

VOCATIONAL NURSING

El Centro only

(Certificate)

The Vocational Nursing program is a twelve month program that prepares students to give direct patient care under the supervision of a registered nurse or a physician. The program is accredited by the Board of Vocational Nurse Examiners for the State of Texas. Upon completion of the program, the student is awarded a certificate and may write the Licensing Examination for Vocational Nurses (NCLEX-PN) in order to become a Licensed Vocational Nurse (LVN) in Texas. The program includes classroom and laboratory work on campus as well as clinical experience at various area hospitals.

Admission requirements include an orientation session, satisfactory scores on a pre-entrance examination, completion of program prerequisite courses with a cumulative grade point average of 2.5 or better and completion of all requirements for admission as a full-time student to the college. Applicants are ranked according to grade point average earned on three prerequisite courses. Contact the Testing Center at El Centro College (746-2178) to sign up for the pre-entrance exam and 746-2242, Health Occupations Admissions, to receive an information packet.

	CREDIT HOURS
FALL ADMISSION	
SEMESTER I - Prerequisite to Program Admission	
BIO 120 Introduction to Human Anatomy and Physiology or	
BIO 221 Anatomy and Physiology I	4
MTH 139 Applied Mathematics or	
MTH 101 College Algebra	3
ENG 101 Composition I	3
	<u>10</u>
SEMESTER II	
BIO 121 Introduction to the Human Anatomy and Physiology or	
BIO 222 Anatomy and Physiology II	4
HD 100 Study Skills*/**	(1)
VN 144 Health Maintenance through the Life Cycle	3
VN 145 Nursing Process I	3
VN 152 Nursing Practice I	6
	<u>16</u>
SEMESTER II	
VN 156 Nursing Process II	10
VN 157 Nursing Practice II	7
	<u>17</u>

SEMESTER III (Summer 12 Weeks)

VN 153	Maternal Child Health	8
VN 158	Maternal Child Health Clinical	4
		<u>12</u>

Minimum Hours Required 55

CREDIT
HOURS

SPRING ADMISSION

SEMESTER I - Prerequisite to Program Admission

BIO 120	Introduction to Human Anatomy and Physiology or	
BIO 221	Anatomy and Physiology I	4
MTH 139	Applied Mathematics or	
MTH 101	College Algebra	3
ENG 101	Composition I	3
		<u>10</u>

SEMESTER II

BIO 121	Introduction to the Human Anatomy or	
BIO 222	Anatomy and Physiology II	4
HD 100	Study Skills*/**	(1)
VN 144	Health Maintenance through the Life Cycle	3
VN 145	Nursing Process I	3
VN 152	Nursing Practice I	6
		<u>16</u>

SEMESTER II (Summer 12 Weeks)

VN 153	Maternal Child Health	8
VN 158	Maternal Child Health Clinical	4
		<u>12</u>

SEMESTER III

VN 156	Nursing Process II	10
VN 157	Nursing Practice II	7
		<u>17</u>

Minimum Hours Required 55

*HD 100 and BIO 121 may be completed prior to entering the program.

**The one hour credit in HD 100 is not counted toward the degree requirements.

A grade of "C" or better is required in all courses.

WELDING TECHNOLOGY

Mountain View only

(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
CAD 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 704	Cooperative Work Experience or	(4)
+ Elective		3
SC 101	Introduction to Speech Communication	3
		17-18

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 Arch 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 103	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

Mountain View only

(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
		<u>16</u>

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
		<u>19</u>

Minimum Hours Required 35

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

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)

(Common Course Number ACCT 2301)

This course covers the theory and practice of measuring and interpreting financial data for business units. Basic concepts, principles, and procedures are applied to the following topics: operating cycle, accruals and deferrals, financial statements, internal controls, receivables, inventory, fixed assets, and liabilities. (3 Lec.)

ACC 202 Principles Of Accounting II (3)

(Common Course Number ACCT 2302)

Prerequisite: Accounting 201. This course is a continuation of Accounting 201. This course covers the theory and practice of measuring and interpreting financial data for business units, with emphasis on corporations and managerial applications. Basic concepts, principles, and procedures are applied to the following topics: preparation and analysis of financial statements, budgeting, cash flow, cost systems, responsibility accounting, and cost-volume-profit analysis. (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 factory overhead are studied. Budgets, 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 101 or demonstrated competence approved by the instructor. 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 an integrated general ledger accounting package, including accounts receivable and accounts payable. In addition, various electronic spreadsheet applications and other topics will be covered. Laboratory fee. (2 Lec., 2 Lab.)

ACC 703 Cooperative Work Experience (3)

Prerequisites: Completion of Accounting 201 and 202 or instructor approval. This course combines work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Each student must complete three objectives and work a minimum of 15 hours per week for a total of three credit hours. Seminar topics include an orientation session, setting and writing job objectives, career planning, interpersonal skills, and an exit session. (1 Lec., 15 Lab.)

ACC 704 Cooperative Work Experience (4)

Prerequisites: Completion of Accounting 201 and 202 or instructor approval. This course combines work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Each student must complete four objectives and work a minimum of 20 hours per week for a total of four credit hours. Seminar topics include an orientation session, setting and writing job objectives, career planning, interpersonal skills, and an exit session. (1 Lec., 20 Lab.)

ACC 713 Cooperative Work Experience (3)

Prerequisite: Completion of Accounting 703 or 704. This course combines work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Each student must complete three new objectives and work a minimum of 15 hours per week for a total of three credit hours. Seminar topics include an orientation session, setting and writing job objectives, and additional independent study of business topics. The independent study topics in this course must be different from those included in the previous cooperative education course. (1 Lec., 15 Lab.)

ACC 714 Cooperative Work Experience (4)

Prerequisite: Completion of Accounting 703 or 704. This course combines work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Each student must complete four new objectives and work a minimum of 20 hours per week for a total of four credit hours. Seminar topics include an orientation session, setting and writing job objectives, and additional independent study of business topics. The independent study topics in this course must be different from those included in the previous cooperative education course. (1 Lec., 20 Lab.)

AGRICULTURE**AGR 100 The Agricultural Industry (2)**

(Common Course Number AGRI 1231)

This course is a survey of the trends and opportunities in the agricultural industry. It introduces the student to various types of professional and technical jobs in the industry and the types of agricultural businesses, commodity and trade organizations, and governmental agencies where these jobs may be found. Basic methods of utilizing educational resources such as the Learning Resource Center and agricultural resources within the area will be presented. (2 Lec.)

(Coordinating Board Academic Approval Number 0101035221)

AGR 103 Agronomy (4)

(Common Course Number AGRI 1407)

This course introduces the student to the scientific principles and modern practices used in the production of field and forage crops. Topics include crop classification, variety selection and performance, soil testing, fertilizers, soil types and conditions, environmental factors, production practices, and crop usage. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0204025121)

AGR 105 General Animal Science (4)

(Common Course Number AGRI 1419)

This course is an introduction to modern animal agriculture. Market classification, selection, basic reproduction and nutrition principles, and general management of cattle, swine, sheep, goats, and horses will be presented. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0202015121)

AGR 107 General Horticulture (4)

(Common Course Number AGRI 1415)

This course is an introduction to the practical and scientific methods used in modern horticulture. Basic principles in plant propagation, landscape, greenhouse operation, plant identification, vegetable and fruit production will be included. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0106015121)

AGR 111 Introduction To Agricultural Economics (3)

(Common Course Number AGRI 2317)

This course is an introduction to economic principles and concepts in agriculture as they relate to the local farm and at the national level. The course will make the student aware of economic principles that affect procedures, processing, and the distribution of farm products. Agricultural economics is an introductory level course providing students with a basis for evaluation of economic factors related to agricultural marketing and the general farm operation. (3 Lec.)

(Coordinating Board Academic Approval Number 0101035121)

AGR 124 Poultry Science (3)

(Common Course Number AGRI 1327)

This is a basic course designed to introduce the student to the scientific components of the poultry industry. It will include study of the principles of breeding, incubation, feeding, housing, marketing, and disease control of poultry. Laboratory fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0202095121)

AGR 202 Agricultural Power Units (3)

(Common Course Number AGRI 2301)

This course is an introduction to the principles of operating, servicing, and adjusting internal combustion engines used in agricultural enterprises. A comparison of gasoline, LP gas, and diesel engines as well as the function and maintenance of the electrical, ignition, fuel, lubrication, and cooling systems will be included. Laboratory fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0102045121)

AGR 203 Agricultural Construction (3)

(Common Course Number AGRI 2303)

This is an introduction to construction principles used in agricultural enterprises. Layout and design of agricultural facilities, material selection, specification writing and interpretation, ordinance and environmental compliance, construction estimating, and safe use of selected tools and equipment will be included. Laboratory fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0102015121)

AGR 204 Dairying (3)

(Common Course Number AGRI 1311)

This course surveys the dairying industry, dairy breeds, standards for selection and culling, herd replacement, feeding, management, and health maintenance. The food value of milk for the dairy industry, tests for composition and quality utilization and processing of market milk and dairy products will be reviewed. Laboratory fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0202065121)

AGR 205 Introduction To Food Science (3)

(Common Course Number AGRI 1329)

This is an introduction to the basic scientific and technological principles of modern food supply systems. Students will receive instruction in the areas of food classification, modern processing, and quality control methods. Laboratory Fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0203015121)

AGR 211 Computer Applications In Agriculture (3)

(Common Course Number AGRI 1309)

Prerequisite: Developmental Mathematics 093 or equivalent. This is an introduction to the use of computers in agricultural operations and management. Software and hardware selection, word processing, spreadsheet, database, and BASIC programming applications will be included. Laboratory Fee. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 0101015121)

AGR 250 Agricultural Entomology (4)

(Common Course Number AGRI 1413)

This course is a survey of general and economic entomology as it relates to agriculture. Topics include insect morphology, physiology, identification of the principal orders, economic significance, control of entomological pests of plants, man, animals, and household. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0204085121)

AIR CONDITIONING AND REFRIGERATION

ACR 109 Contemporary Topics I (2)

Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. Laboratory fee. (1 Lec., 2 Lab.)

ACR 110 Contemporary Topics II (3)

Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. Laboratory fee. (2 Lec., 2 Lab.)

ACR 120 Principles Of Refrigeration (6)

This course is a comprehensive course that includes Air Conditioning 121 and 122. Students may register in the comprehensive course or the inclusive courses. The physical principles applying to refrigeration systems are studied including thermodynamics, gas laws, heat transfer, refrigerants, pressure-enthalpy diagrams, vapor compression systems, safety procedures and the proper safe use of hand tools. Laboratory fee. (4 Lec., 5 Lab.)

ACR 121 Principles Of Refrigeration I (3)

The physical principles applying to refrigeration systems including thermodynamics, gas laws and heat transfer are covered by this course. The proper use of hand tools and safety procedures followed in the industry are presented. Laboratory fee. (2 Lec., 2 Lab.)

ACR 122 Principles Of Refrigeration II (3)

Prerequisite: Air Conditioning and Refrigeration 121. This course is a continued study of the physical principles related to refrigeration systems including basic properties of refrigerants and the construction of pressure-enthalpy diagrams. The operation of vapor compression systems are studied in detail. (2 Lec., 3 Lab.)

ACR 125 Principles Of Electricity (6)

This course is a comprehensive course that includes Air Conditioning 126 and 127. Students may register in the comprehensive course or the inclusive courses. The electrical principles applied to the air conditioning and refrigeration systems are studied including simple circuits, circuits, basic electrical units, test instruments, construction and diagnosis of complex electrical circuits, alternating current motors and electrical safety procedures. Laboratory fee. (4 Lec., 5 Lab.)

ACR 126 Principles Of Electricity I (3)

This course is a study of the principles of electricity as applied in the air conditioning and refrigeration service field. Simple circuits, circuit components, basic electrical units and test instruments are covered. Laboratory fee. (2 Lec., 3 Lab.)

ACR 127 Principles Of Electricity II (3)

Prerequisite: Air Conditioning and Refrigeration 126. This course continues the study of electricity applied to air conditioning and refrigeration. Emphasis is placed on the construction and diagnosis of complex electrical circuits and alternating current motors used in the air conditioning and refrigeration service industry. Laboratory fee. (2 Lec., 2 Lab.)

ACR 130 Residential Cooling Systems (6)

Prerequisites: Air Conditioning and Refrigeration 120 and 125. This course is a comprehensive course that includes Air Conditioning 131 and 132. Students may register in the comprehensive course or the inclusive courses. This course covers compressors, condensers, evaporators, metering devices, pipe sizing, piping practices, seasonal maintenance, electrical systems, system trouble-shooting and system installation. Laboratory fee. (4 Lec., 5 Lab.)

ACR 131 Residential Cooling Systems I (3)

Prerequisites: Air Conditioning and Refrigeration 122 and 127. The principles of refrigeration and electricity are applied to residential cooling systems. Emphasis is placed on compressors, condensers, evaporators, metering devices and electrical components function and relationship. Laboratory fee. (2 Lec., 2 Lab.)

ACR 132 Residential Cooling Systems II (3)

Prerequisite: Air Conditioning and Refrigeration 131. This course includes pipe sizing, piping practices, seasonal maintenance, system trouble-shooting and system installation. Laboratory fee. (2 Lec., 3 Lab.)

ACR 137 Contemporary Topics III (1)

Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. (1 Lec.)

ACR 138 Contemporary Topics IV (2)

Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. (2 Lec.)

ACR 139 Contemporary Topics V (3)

Topics studied in this course will vary based on areas of special interest and recent developments in the air conditioning and refrigeration service industry. Topics covered in this course will be annotated in the class schedule. This course may be repeated for credit when topics vary. (3 Lec.)

ACR 140 Residential Heating Systems (6)

Prerequisites: Air Conditioning and Refrigeration 120 and 125. This course is a comprehensive course that includes Air Conditioning 141 and 142. Students may register in the comprehensive course or the inclusive courses. The servicing of residential heating systems is studied. Topics include gas-fired furnaces, electric furnaces, heat pumps, control circuits and other related topics. Laboratory fee. (4 Lec., 5 Lab.)

ACR 141 Residential Heating Systems I (3)

Prerequisites: Air Conditioning and Refrigeration 122 and 127. This course is a study of the procedures and principles used in servicing residential heating systems including gas-fired and electric furnaces. Laboratory fee. (2 Lec., 3 Lab.)

ACR 142 Residential Heating Systems II (3)

Prerequisite: Air Conditioning and Refrigeration 141. Heat pumps, heating system control circuits and other topics related to residential heating systems are covered in this course. Laboratory fee. (2 Lec., 2 Lab.)

ACR 200 Contractor Estimating (6)

This course is a comprehensive course that includes Air Conditioning 209 and 210. Students may register in the comprehensive course or the inclusive courses. The study of load calculations, air duct design, building plans, construction codes, state and local licenses, job estimating and job scheduling are covered in this course. Laboratory fee. (4 Lec., 5 Lab.)

ACR 209 Contractor Estimating I (3)

This course is a study of load calculations, air duct design and building plans used in the industry by service contractors. Laboratory fee. (2 Lec., 3 Lab.)

ACR 210 Contractor Estimating II (3)

Prerequisite: Air Conditioning and Refrigeration 209. This course continues the study of contractor estimating including construction codes, state and local licenses, job estimating elements, and job scheduling. Laboratory fee. (2 Lec., 2 Lab.)

ACR 212 System Servicing (6)

Prerequisites: Air Conditioning and Refrigeration 130 and 140. This course is a comprehensive course that includes Air Conditioning 213 and 214. Students may register in the comprehensive course or the inclusive courses. This course includes psychometric air properties, system balancing, the service of humidifiers and electronic air cleaners, advanced system trouble-shooting, and system installation. Laboratory fee. (4 Lec., 5 Lab.)

ACR 213 System Servicing I (3)

Prerequisites: Air Conditioning and Refrigeration 132 and 142. The topics of psychometric air properties, system balancing, the service of humidifiers and electronic air cleaners are covered in this course. Laboratory fee. (2 Lec., 2 Lab.)

ACR 214 System Servicing II (3)

Prerequisite: Air Conditioning and Refrigeration 213. This course is a continuation of system servicing with emphasis on advanced system trouble-shooting and system installation. Laboratory fee. (2 Lec., 3 Lab.)

ACR 221 Refrigeration Loads (3)

Prerequisites: Air Conditioning and Refrigeration 130 and 140. This course focuses on the analysis and estimation of refrigeration loads for medium and low temperature systems. Product storage data and procedures for calculating loads with a variety of products and refrigeration equipment are included. Laboratory fee. (2 Lec., 2 Lab.)

ACR 222 Advanced Systems (3)

Prerequisite: Air Conditioning and Refrigeration 221. Large commercial and industrial air conditioning systems are introduced. Basic system designs, equipment and control systems are the main topics. Instruction on air handling units, air volume boxes, centrifugal chillers, absorption systems, cooling towers, water treatment, and chilled water systems is included. Laboratory fee. (2 Lec., 3 Lab.)

ACR 223 Medium Temperature Refrigeration Systems (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for medium temperature equipment as found in food stores, warehouses, distribution centers, and processing plants are presented. Particular attention is given to electrical and mechanical features and to defrost subsystems. Laboratory fee. (2 Lec., 3 Lab.)

ACR 224 System Testing And Balancing (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 222. Concepts and procedures for determining the effectiveness and efficiency of an air conditioning system are studied. System balance, capacity, load requirements and energy consumption are considered. Also included are the performance data and the use of test instruments for measurement of air flow, water flow, energy consumption, and recording of temperature. Laboratory fee. (2 Lec., 2 Lab.)

ACR 227 Low Temperature Refrigeration Systems (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 221. Service and installation procedures for low temperature equipment as found in food stores, warehouses, distribution centers, and industrial plants are presented. Particular attention is given to electrical and mechanical characteristics and to defrost system requirements. Laboratory fee. (2 Lec., 3 Lab.)

ACR 228 Air Conditioning System Equipment Selection (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 222. Methods of equipment selection are covered for air conditioning load requirements. Consideration is given to system layout, utility service, control schemes, duct sizing, and installation practices. Laboratory fee. (2 Lec., 3 Lab.)

ACR 229 Refrigeration Equipment Selection (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 223 or 227. This course presents a procedure for selecting equipment and estimating the capacity of commercial refrigeration systems. Consideration is given to component compatibility, system continuity control, balancing, and efficiency. Laboratory fee. (2 Lec., 2 Lab.)

ACR 230 Energy Conservation (3)

Prerequisite: Credit or enrollment in Air Conditioning and Refrigeration 229. The flow of energy in an air conditioning or refrigeration system is examined in depth. Emphasis is on cost effectiveness and energy savings. Practical situations are examined where industry offers a range of equipment or construction designs using various sources of energy with different degrees of efficiency. Laboratory fee. (2 Lec., 2 Lab.)

ACR 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Air Conditioning/Refrigeration program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 15 Lab.)

ACR 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Air Conditioning/Refrigeration program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 20 Lab.)

ACR 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Air Conditioning program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 15 Lab.)

ACR 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Air Conditioning program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 20 Lab.)

ANTHROPOLOGY

ANT 100 Introduction To Anthropology (3)

(Common Course Number ANTH 2346)

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.)

(Coordinating Board Academic Approval Number 4502015142)

ANT 101 Cultural Anthropology (3)

(Common Course Number ANTH 2351)

This course introduces students to the elements and processes that create culture, society and social interaction. Language, cross-cultural communication, fieldwork, and analysis of multicultural societies are covered. A special emphasis is given to cross-cultural comparison and analysis of basic social institutions on a global scale in order to provide students with an appreciation and understanding of the underlying unity of diverse cultural expressions. (3 Lec.)

(Coordinating Board Academic Approval Number 4502015342)

ANT 104 American Indian Culture (3)

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

(Coordinating Board Academic Approval Number 4511015342)

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.)

(Coordinating Board Academic Approval Number 4511015342)

ANT 231 Introduction To Archeology (3)

(Common Course Number ANTH 2302)

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

(Coordinating Board Academic Approval Number 4503015142)

APPAREL DESIGN**APP 232 Design Development I (3)**

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 237 or demonstrated competence approved by the instructor. The principles of good design for mass produced apparel are studied, especially as they apply to structural and decorative design. Careful attention is given to fabric selection and trimming that are appropriate for current styles. Laboratory fee. (2 Lec., 4 Lab.)

APP 233 Design Development II (3)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 238 or demonstrated competence approved by the instructor. This is a continuation of developing design principles. The garment cost and construction techniques are emphasized along with selection of fabric and trimming. Laboratory fee. (2 Lec., 4 Lab.)

APP 237 Style Trends And Research I (2)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 232 or demonstrated competence approved by the instructor. This course is a study of current trends in the apparel industry. The student develops workroom sketches of designs for children, junior petite, junior, active sportswear, misses, and suits. (2 Lec.)

APP 238 Style Trends And Research II (2)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 233 or demonstrated competence approved by the instructor. This course is a continuation of the current trends in the apparel industry. The student develops sketches of designs for half sizes, dressy dresses, and lingerie. The student selects one size range for a complete research report. (2 Lec.)

ARCHITECTURE**ARC 101 Introduction to Architecture (3)**

(Common Course Number ARCH 1311)

This course is an introduction to the elements of architecture; opportunities within the architectural profession are explored. (3 Lec.)

(Coordinating Board Academic Approval Number 0402015922)

ARC 102 Architectural Aesthetics (3)

(Common Course Number ARCH 1205)

Visual experiences in the aesthetics of architecture are studied in context with architecture as a contemporary philosophical concept. (3 Lec.)

(Coordinating Board Academic Approval Number 0402015222)

ARC 130 Architectural Graphics I (3)

(Common Course Number ARCH 1307)

Basic architectural drafting techniques are studied including orthographic projection and isometric drawing. Linework in pencil and ink are emphasized. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801025322)

ARC 133 Architectural Graphics II (3)

(Common Course Number ARCH 1308)

Prerequisite: ARC 130 or demonstrated competence approved by the division dean. Three-dimensional drawing utilizing perspective and shade/shadow theory is studied in pencil and ink. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801025322)

ARC 134 Freehand Drawing I (3)

(Common Course Number ARCH 2301)

Representational drawing is studied with emphasis upon eye-to-hand coordination utilizing light, shade, line, and tonal quality. Pencil media is utilized. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801025122)

ARC 135 Freehand Drawing II (3)

(Common Course Number ARCH 2302)

Prerequisite: Architecture 134. Representational drawing is continued using a variety of techniques in pen and ink media. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801025122)

ARC 151 Materials Of Construction (3)

(Common Course Number ARCH 2312)

The nature and use of materials in construction are explored. Emphasis is placed upon appropriateness and use in design as they relate to design expression and codes. (3 Lec.)

(Coordinating Board Academic Approval Number 1501015122)

ARC 161 Architectural Design I (3)

(Common Course Number ARCH 1303)

Basic concepts of design are studied including form, scale, proportion, rhythm, unity, accent, texture, and pattern, as applied to two-dimensional and three-dimensional abstract projects. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 0402015422)

ARC 162 Architectural Design II (3)

(Common Course Number ARCH 1304)

Prerequisites: For architecture majors only, Architecture 130 and 161. This course is a continuation of Architecture 161, with emphasis upon architecture theories, perceptions, environmental factors and communication of those elements in design. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 0402015422)

ARC 230 History Of Modern Architecture (3)

(Common Course Number 1302)

The evolution of 20th Century design theory is surveyed, from the Industrial Revolution to the present. Special attention is given to significant architects, designers, and personalities and their effect on the modern movement. (3 Lec.)

(Coordinating Board Academic Approval Number 3012015122)

ARC 233 History Of Architecture Survey To 1850 (3)

(Common Course Number 1301)

The architectural contributions of Ancient, Classical, Medieval, and Renaissance societies are surveyed, along with their relationships to the cultural heritage of the Western World. (3 Lec.)

(Coordinating Board Academic Approval Number 3012015122)

ARC 237 Freehand Drawing III (3)

Prerequisite: Architecture 133 or demonstrated competence approved by the instructor. This course includes an introduction to and the development of rapid graphic skills needed to formulate and communicate design concepts, including the study and practice of visualization and free-hand perspective drawing of design elements. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801025122)

ARC 257 Architectural Computer Graphics I (3)

(Common Course Number ARCH 1315)

Basic computer terminology and software applications utilizing the microcomputer in architecture and design are studied. Laboratory fee. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4801025222)

ARC 258 Architectural Computer Graphics II (3)

Prerequisite: Architecture 257 or demonstrated competence approved by the division dean. This course is a continuation of the study of computer aided design (CAD) in architecture. Emphasis will include detailed applications in design and drawing. Laboratory fee. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4801025222)

ART**ART 104 Art Appreciation (3)**

(Common Course Number ARTS 1301)

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.)

(Coordinating Board Academic Approval Number 5007035130)

ART 105 Survey Of Art History (3)

(Common Course Number ARTS 1303)

This course covers the history of art from prehistoric time through the Gothic period. It explores the cultural, geophysical, and personal influences on art styles. (3 Lec.)

(Coordinating Board Academic Approval Number 5007035230)

ART 106 Survey Of Art History (3)

(Common Course Number ARTS 1304)

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

(Coordinating Board Academic Approval Number 5007035230)

ART 110 Design I (3)

(Common Course Number ARTS 1311)

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.)

(Coordinating Board Academic Approval Number 5004015330)

ART 111 Design II (3)

(Common Course Number ARTS 1312)

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

(Coordinating Board Academic Approval Number 5004015330)

ART 114 Drawing I (3)

(Common Course Number ARTS 1316)

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.)

(Coordinating Board Academic Approval Number 5007055230)

ART 115 Drawing II (3)

(Common Course Number ARTS 1317)

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. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 5007055230)

ART 116 Jewelry Design And Construction (3)

(Common Course Number ARTS 2341)

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.)

(Coordinating Board Academic Approval Number 5007135130)

ART 117 Advanced Jewelry Design And Construction (3)

(Common Course Number ARTS 2342)

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.)

(Coordinating Board Academic Approval Number 5007135130)

ART 118 Creative Photography For The Artist I (3)

Prerequisites: Art 110, Art 114, or demonstrated competence approved by the instructor. Creative use of the camera is studied. Photosensitive materials are examined as a means of making expressive graphic images. Emphasis is on black and white processing and printing techniques. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 5006057130)

ART 119 Creative Photography For The Artist II (3)

Prerequisite: Art 118 or demonstrated competence approved by the instructor. This course is a continuation of Art 118. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 5006057130)

ART 165 Fundamental Design Studio I (4)

(Common Course Number ARCH 1403)

Prerequisites: Interior Design program major. Basic concepts of design limited to black and white values are studied including form, scale, space, proportion, rhythm, theme, variety, accent, unity, texture, and pattern as applied to two-dimensional and three-dimensional abstract projects. This course is intended for students enrolled in applied arts programs. Laboratory fee. (2 Lec., 5 Lab.)

(Coordinating Board Academic Approval Number 0402015422)

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.)

(Coordinating Board Academic Approval Number 5007035330)

ART 201 Drawing III (3)

(Common Course Number ARTS 2323)

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.)

(Coordinating Board Academic Approval Number 5007055330)

ART 202 Drawing IV (3)

(Common Course Number ARTS 2324)

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.)

(Coordinating Board Academic Approval Number 5007055330)

ART 203 Art History (3)

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

(Coordinating Board Academic Approval Number 5007035230)

ART 204 Art History (3)

Prerequisites: Art 105 and Art 106. The development of the art of western culture from the late 19th century through today is presented. Emphasis is on the development of modern art in Europe and America. (3 Lec.)

(Coordinating Board Academic Approval Number 5007035230)

ART 205 Painting I (3)

(Common Course Number ARTS 2316)

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.)

(Coordinating Board Academic Approval Number 5007085230)

ART 206 Painting II (3)

(Common Course Number ARTS 2317)

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

(Coordinating Board Academic Approval Number 5007085230)

ART 208 Sculpture I (3)

(Common Course Number ARTS 2326)

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.)
(Coordinating Board Academic Approval Number 5007095130)

ART 209 Sculpture II (3)

(Common Course Number ARTS 2327)

Prerequisite: Art 208. This course continues Art 208. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007095130)

ART 210 Commercial Art I (3)

Prerequisites: Art 110, Art 111, Art 115 or demonstrated competence approved by the instructor. The working world of commercial art is introduced. Typical commercial assignments are used to develop professional attitudes and basic studio skills. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5004027129)

ART 215 Ceramics I (3)

(Common Course Number ARTS 2346)

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.)
(Coordinating Board Academic Approval Number 5007115130)

ART 216 Ceramics II (3)

(Common Course Number ARTS 2347)

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.)
(Coordinating Board Academic Approval Number 5007115130)

ART 217 Watercolor I (3)

(Common Course Number ARTS 2366)

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. This course may be repeated for credit. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007085330)

ART 218 Watercolor II (3)

(Common Course Number ARTS 2367)

Prerequisite: Art 217. This course continues the development of skills in water base media. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007085330)

ART 220 Printmaking I (3)

(Common Course Number ARTS 2333)

Prerequisites: Art 110, Art 111, Art 115, or demonstrated competence approved by the instructor. Basic printmaking processes are introduced. Included are planographic, intaglio, stencil and relief processes. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007105130)

ART 222 Printmaking II (3)

(Common Course Number ARTS 2334)

Prerequisite: Art 220. This course is a continuation of Printmaking I. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007105130)

ART 227 Design III (3)

(Common Course Number ARTS 2311)

Prerequisites: Art 110, 111, 114, and 115. This course is a development of two- and three-dimensional projects in a variety of materials. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5004015330)

ART 229 Design IV (3)

Prerequisite: Art 227. This course is a continued investigation into the problems of two- and three-dimensional concepts. Emphasis is on individual expression. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5004015330)

ART 232 Fibers I (3)

(Common Course Number ARTS 2336)

Prerequisites: Art 110, 111, 114, and 115. This course explores the problems of design, construction, and form utilizing basic fiber techniques. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007125130)

ART 233 Fibers II (3)

(Common Course Number ARTS 2337)

Prerequisite: Art 232. This course is a continuation of Art 232. It further explores fiber techniques and processes. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5007125130)

ASTRONOMY

AST 101 Descriptive Astronomy (3)

(Common Course Number PHYS 1311)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4002015139)

AST 102 General Astronomy (3)

(Common Course Number PHYS 1312)

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.)

(Coordinating Board Academic Approval Number 4002015139)

AST 103 Astronomy Laboratory I (1)

(Common Course Number PHYS 1111)

Prerequisite: Credit or concurrent enrollment in Astronomy 101. The student uses simple equipment to make elementary astronomical observations of the motions of celestial objects. Also covered are elementary navigational techniques, graphical techniques of calculating the position of a planet or comet, and construction of simple observing equipment. This laboratory includes night observations. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 4002015139)

AST 104 Astronomy Laboratory II (1)

(Common Course Number PHYS 1112)

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

(Coordinating Board Academic Approval Number 4002015139)

AST 111 Fundamentals Of Astronomy (4)

(Common Course Number PHYS 1411)

This course concerns fundamental aspects of the solar system and the historical development of astronomical ideas. Included are studies of the celestial sphere and motions of the earth, the moon, planets, and other minor bodies. The origin and evolution of the solar system are also covered. The laboratory includes outdoor viewing sessions and study of celestial motions, elementary navigation, constellation identification, and telescope construction. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4002015139)

AST 112 General Introductory Astronomy (4)

(Common Course Number PHYS 1412)

This course concerns fundamental properties of stars, stellar systems, star clusters, nebulae, interstellar gas and dust, and galaxies. Included is the study of the sun, Milky Way Galaxy, stellar evolution, black holes, and current cosmological ideas. The laboratory includes outdoor viewing sessions and the study of timekeeping, use of spectra, and motions of stars and galaxies. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4002015139)

AUTO BODY

AB 111 Basic Metal Principles (3)

Prerequisite: Concurrent enrollment in Auto Body 112. The use of hand and air tools is covered. Filling of plastic is included. Preparing the metal, sanding, masking, and priming surfaces on minor damages are emphasized. Laboratory fee. (90 Contact Hours)

AB 112 Applied Basic Metal Principles (2)

Prerequisite: Concurrent enrollment in Auto Body 111. This course emphasizes hands-on use of hand and air tools used in metal repair. Techniques covered in Auto Body 111 will be applied to minor repair. Laboratory fee. (60 Contact Hours)

AB 113 Minor Metal Repair (3)

Prerequisite: Concurrent enrollment in Auto Body 114. Body construction and sheet metal alignment are studied. Emphasis is on the various techniques of applying plastic to minor damages. Laboratory fee. (90 Contact Hours)

AB 114 Applied Minor Metal Repair (2)

Prerequisite: Concurrent enrollment in Auto Body 113. This course emphasizes the hands-on techniques used in sheet metal alignment and damage correction. Procedures and tools included in Auto Body 113 will be covered. Laboratory fee. (60 Contact Hours)

AB 121 Basic Paint Principles (3)

Prerequisite: Concurrent enrollment in Auto Body 122. This course presents the use of sanders and other equipment. Sanding and applying primer and paint are stressed. The use and operation of the spray gun are covered. Laboratory fee. (90 Contact Hours)

AB 122 Applied Basic Paint Principles (2)

Prerequisite: Concurrent enrollment in Auto Body 121. This course will cover hands-on techniques in the use of power and hand sanding as well as use of the spray gun. The techniques included in Auto Body 121 will be covered. Laboratory fee. (60 Contact Hours)

AB 123 Paint Blending And Spot Repair Techniques (3)

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

AB 124 Applied Blending And Spot Repair Techniques (2)

Prerequisite: Concurrent enrollment in Auto Body 123. This course examines potential problems that occur in the application of the finish on today's automobile. Recognition, prevention, and correction of problems are stressed. Laboratory fee. (60 Contact Hours)

AB 139 Body Shop Operations (3)

The basic business principles of managing an automobile service shop are studied. Emphasis is on management functions, financial analysis, and governmental regulations. (48 Contact Hours)

AB 211 Major Panel Replacement (3)

Prerequisite: Concurrent enrollment in Auto Body 212. The use of power tools and cutting tools is presented. Emphasis is on the repair and replacement of panels. Laboratory fee. (90 Contact Hours)

AB 212 Applied Major Panel Replacement (2)

Prerequisite: Concurrent enrollment in Auto Body 211. This course emphasizes repair and replacement of panels on in-service automobiles. The adjustment, repair and replacement of equipment and minor electrical apparatus are also covered. Laboratory fee. (60 Contact Hours)

AB 213 Major Collision And Frame Repair (3)

Students learn to use power frame alignment equipment through lecture, demonstration, and actual job repairs. Laboratory fee. (90 Contact Hours)

AB 221 Advanced Paint Techniques (3)

This course focuses on the development of painting skills. Emphasis is on mixing colors, matching colors, and texture. Special decorative effects are also covered, such as simulated wood and vinyl application. Transfer repair, renewal, removal, film application, painting and taping techniques are included. Laboratory fee. (90 Contact Hours)

AB 222 Applied Advanced Paint Techniques (2)

This course further develops painting skills with hands-on training, emphasizing mixing colors and matching color and texture of paint on in-service automobiles. Laboratory fee. (60 Contact Hours)

AB 225 Special Auto Body Applications (1)

This is a development course designed to allow students to program their own specialized objectives under instructional supervision. This will permit the student to upgrade existing skills or develop a new skill. This course may be repeated for credit as topics vary for a maximum of three credit hours. Laboratory fee. (30 Contact Hours)

AB 235 Estimating (3)

The procedures for estimating damage on automobiles are presented. (3 Lec.)

AB 245 Welding For Auto Body (3)

This course covers the basics of oxyacetylene welding, spot welding (electric), and electric arc welding. Laboratory fee. (90 Contact Hours)

AB 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Auto Body Technology program or instructor approval. This introductory course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminars consist of introduction to co-op, writing objectives of co-op, painting seminar, and frame repair seminar. (1 Lec., 15 Lab.)

AB 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Auto Body Technology program or instructor approval. This advanced course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminars consists of human relations, adjustment on the job, vertical and horizontal working relationships and fundamentals of good working relationships. (1 Lec., 20 Lab.)

AUTOMOTIVE CAREER TECHNICIAN

ACT 110 Fundamentals (3)

This course introduces general auto maintenance procedures. Topics include shop safety, hand tools, shop equipment, manuals and schematic diagrams. (3 Lec.)

ACT 111 Electrical Systems I (3)

The theory and principles of electrical systems are presented. Batteries, starters, charging systems, and ignition systems are studied. Emphasis is on testing and basic service procedures. (3 Lec.)

ACT 113 Electrical Systems II (3)

Prerequisite: Automotive Career Training 111 or demonstrated competence approved by the instructor. Advanced electrical systems are presented. Topics include solid state and microprocessor electronics used in the automobile. Emphasis is on system and component diagnosis and troubleshooting, and on the proper use of test equipment. Upon completion of this course, the student is prepared for A.S.E. Electrical Systems Examination. (3 Lec.)

ACT 114 Basic Top End Construction (3)

Theory of the internal combustion engine is studied including the design, identification and operation of cylinder heads and valve trains. Also included are camshaft designs and applications and valve train diagnosis. Emphasis is on problem diagnosis and repair, and on the use of test equipment. (3 Lec.)

ACT 115 Engine Bottom End Construction (3)

Prerequisite: Automotive Career Technician 114 or concurrent enrollment. Procedures to disassemble an engine, diagnose problems and reassemble an engine are covered. Topics also include vehicle driveability and road testing. Emphasis is on diagnosis and precision measuring techniques. Upon completion of this course, the student is prepared for the A.S.E. Engine Repair Examination. (3 Lec.)

ACT 116 Automotive Service (3)

Mastery of automotive vehicle or component system repair is practiced. Emphasis is on mastering current automotive competencies. Laboratory fee. (8 Lab.)

ACT 118 Automotive Service (4)

Mastery of automotive vehicle or component system repair is practiced. Emphasis is on mastering current automotive competencies. This course may be repeated for credit. Laboratory fee. (10 Lab.)

ACT 212 Special Automotive Applications (1)

This is a skill development course designed to allow students to develop specialized objectives under instructional supervision. Students may upgrade existing skills or develop a new skill. This course may be repeated for credit for a maximum of three credit hours. (2 Lab.)

ACT 216 Parts And Service (2)

This course provides instruction in parts identification, stocking, shipping, receiving, inventory control, human relations, communications, counter service, sales and merchandising. Emphasis is on developing customer relations and customer satisfaction. (2 Lec.)

ACT 220 Air Conditioning And Heating Systems (3)

This course covers basic thermodynamics principles of heating and air conditioning systems. Topics include systems, components, systems testing, diagnosis, and servicing. Also included are control systems. Upon completion of this course, the technician is prepared for the A.S.E. Heating and Air Conditioning Systems Examination. (3 Lec.)

ACT 221 Suspension, Steering And Brake Systems (3)

Suspension, steering and brake systems are covered. Disc and drum brakes, front and rear suspension systems, and manual and power steering systems are included. Tires, wheels, and alignment are also studied. Emphasis is on inspection, diagnosis, and service techniques. Upon successful completion of this course, the technician is prepared for the A.S.E. Front End and Brake Systems Examinations. (3 Lec.)

ACT 222 Engine Tune-Up Procedures (3)

Tune-up procedures are presented. The fuel system, carburetor, ignition system, and emission control systems are covered. Emphasis is on precision diagnosis by the use of the engine analyzer as well as trouble-shooting procedures. Upon successful completion of this course, the technician is prepared for the A.S.E. Engine Tune-Up and Performance Examination. (3 Lec.)

ACT 223 Standard Transmissions And Power Trains (3)

This course includes the study of clutches, standard transmissions, drive line, and differentials. Gear trains, universal joints, axles, and bearings are covered. Emphasis is placed on drive line components for both conventional and transverse applications. Upon completion of this course, the technician is prepared for the A.S.E. Standard Transmission and Rear Axle Examination. (3 Lec.)

ACT 224 Automatic Transmission (3)

This course covers the operation, diagnosis, and repair procedures of automatic transmissions. Gear trains, torque converters, hydraulic systems, and control circuits are studied. Emphasis is placed on in-line and transverse applications. Upon completion of this course, the technician is prepared for the A.S.E. Automatic Transmission Examination. (3 Lec.)

ACT 225 Fuel Injection System (3)

Principles and functions of automotive fuel injectors, diagnosis and repair are covered. The course also reviews fuel pumps, gas tanks, emission control systems and their diagnosis, repair and adjustment. (3 Lec.)

ACT 704 Cooperative Work Experience (4)

Prerequisites: The student must be enrolled in the Automotive Career Technician program and working 40 hours per week in the automotive industry. This course combines work experience and preparation for Automotive Service Excellence Technical Certification. The student, employer and instructor will develop a written competency-based learning plan with specific learning objectives designed to prepare the student for selected Automotive Service Excellence Certification Tests. The student will develop a new set of learning objectives each semester. The seminars consist of topics designed to prepare the student for selected Automotive Service Excellence Certification Tests and the administration of such tests. (1 Lec., 20 Lab.)

ACT 714 Cooperative Work Experience (4)

Prerequisites: The student must be enrolled in the Automotive Career Technician program and working 40 hours per week in the automotive industry. This course combines work experience and preparation for Automotive Service Excellence Technical Certification. The student, employer and instructor will develop a written competency-based learning plan with specific learning objectives designed to prepare the student for selected Automotive Service Excellence Certification Tests. The student will develop a new set of learning objectives each semester. The seminars consist of topics designed to prepare the student for selected Automotive Service Excellence Certification Tests and the administration of such tests. (1 Lec., 20 Lab.)

ACT 804 Cooperative Work Experience (4)

Prerequisites: The student must be enrolled in the Automotive Career Technician program and working 40 hours per week in the automotive industry. This course combines work experience and preparation for Automotive Service Excellence Technical Certification. The student, employer and instructor will develop a written competency-based learning plan with specific learning objectives designed to prepare the student for selected Automotive Service Excellence Certification Tests. The student will develop a new set of learning objectives each semester. The seminars consist of topics designed to prepare the student for selected Automotive Service Excellence Certification Tests and the administration of such tests. (1 Lec., 20 Lab.)

ACT 814 Cooperative Work Experience (4)

Prerequisites: The student must be enrolled in the Automotive Career Technician program and working 40 hours per week in the automotive industry. This course combines work experience and successful completion of the Automotive Service Excellence Certification program. The student, employer and instructor will develop a written competency-based learning plan designed to prepare the student for successful entry into the automotive technology industry as an Automotive Service Excellence Certified Master Technician. The seminars consist of topics designed to prepare the student for successful completion of the Automotive Service Excellence Certification program and employer/employee expectations. (1 Lec., 20 Lab.)

AUTOMOTIVE TECHNOLOGY**AT 109 Minor Vehicle Service (3)**

This course introduces shop operations, customer relations, flat rate manuals, service manuals, safety, organizational design, pay structure, equipment, tools and basic operational theories. Also included are service procedures for lubrication, batteries, the cooling system, wheels and tires and new car pre-delivery service. Laboratory fee. (90 Contact Hours)

AT 110 Engine Repair I (4)

The operational theory of the internal combustion engine is studied. Engine rebuilding, mechanical diagnosis and failure analysis are introduced. Emphasis is on the proper use of hand tools, measuring instruments and equipment. Laboratory fee. (120 Contact Hours)

AT 112 Engine Repair II (4)

Prerequisite: Credit or concurrent enrollment in Automotive Technology 110. This course is a continuation of Automotive Technology 110. Engine rebuilding is continued with emphasis on in-service automotive repair. Laboratory fee. (120 Contact Hours)

AT 114 Engine Performance (4)

Techniques for diagnosing the automobile engine and other areas are covered. Electronics and conventional ignition systems are stressed. Carburetion and fuel injection systems are introduced. Complete tune-up procedures, using the latest test equipment are studied to insure the proper application to the automobile. Laboratory fee. (120 Contact Hours)

AT 116 Fuel And Emission Systems (4)

This course covers the principles and functions of the automotive fuel system including the carburetor, fuel pump, gas tank and emission control systems. Diagnosis and repair and adjustment of emission control systems, repair and adjustment of the carburetor, fuel injection and their components are stressed. Laboratory fee. (120 Contact Hours)

AT 119 Electrical Systems (3)

This course covers the automobile electrical system, including batteries, wiring, lighting, alternators, generators, starters and voltage regulators. The use of electrical test equipment and schematics are covered. The proper care and use of tools is stressed. Laboratory fee. (90 Contact Hours)

AT 163 Introduction To Automotive Service (3)

This course introduces shop operations, customer relations, flat rate manuals, service manuals, safety, organizational design, pay structure, equipment, tools and basic operational theories. Also included are service procedures for lubrication, batteries, the cooling system, wheels and tires and new car pre-delivery service. Laboratory fee. (90 Contact Hours)

AT 164 Engine Systems I (3)

Prerequisite: Automotive Technology 163 or demonstrated competence approved by the instructor. This course covers the theory, operation, and diagnosis of the internal combustion engine. Cylinder head, valve train, and camshaft repair procedures are studied. Also covered are the repair and diagnosis of the lubrication and cooling systems. Laboratory fee. (90 Contact Hours)

AT 165 Engine Systems II (3)

Prerequisite: Automotive Technology 164 or demonstrated competence approved by the instructor. This course is a continuation of Automotive Technology 164. Engine removal and replacement, major engine diagnosis, and repair of the crankshaft, engine block, and rings are stressed, including accurate measurement procedures. Laboratory fee. (90 Contact Hours)

AT 166 Brake Systems (3)

Prerequisite: Automotive Technology 163 or demonstrated competence approved by the instructor. This course will cover the fundamental operation of the hydraulic brake system. Basic hydraulic principles will be reviewed. Emphasis will be given to the operation of disc, drum, power boost and anti-lock systems. Laboratory fee. (90 contact hours)

AT 167 Steering And Suspension (3)

Prerequisite: Automotive Technology 163 or demonstrated competence approved by the instructor. This course includes a thorough study of the various types of automotive front and rear suspension systems, steering systems (both standard and power assisted) and recommended service and repair procedures. Various steering geometry angles will be defined and explained. The principles and procedures of four-wheel or thrust-line alignment will be covered on most common suspension types. Tire service relating to alignment will be stressed. Laboratory fee. (90 Contact Hours)

AT 168 Standard Transmissions And Drive Trains (3)

Prerequisite: Automotive Technology 163 or demonstrated competence approved by the instructor. This course includes an in-depth study of torque and gearing as applied to standard transmissions, transaxles, differentials, final drives, drive axles and clutches. Proper methods of diagnosis, adjustment and repair of these components will be covered in both theory and practical application. Laboratory fee. (90 Contact Hours)

AT 212 Special Automotive Applications (1)

This is a skill development course designed to allow students to program their own specialized objectives under instructional supervision. This course will permit the student to upgrade existing skills or develop a new skill. This course may be repeated for credit as topics vary for a maximum of three credit hours. Laboratory fee. (30 Contact Hours)

AT 222 Heating And Air Conditioning Systems (3)

This course focuses on the principles of operation and service techniques applied to automobile and air conditioning systems. Topics include components, testing, diagnosing, charging and repair practices. Laboratory fee. (90 Contact Hours)

AT 223 Brake Systems (4)

This course covers diagnosis and repair of both drum and disc brake systems, power brake boosters, master cylinders, wheel cylinders and related component parts. Laboratory fee. (120 Contact Hours)

AT 225 Front End Systems (4)

This course will cover the proper techniques and procedures for complete front-end service, wheel alignment, replacement of worn parts, balancing wheels and related front-end and steering mechanisms. Laboratory fee. (120 Contact Hours)

AT 228 Standard Transmission And Drive Trains (3)

This course includes the operating principles, construction, and maintenance of the manual transmission and related drive-train components. Laboratory fee. (90 Contact Hours)

AT 229 Automatic Transmissions I (4)

The theory, operation and diagnosis of automatic transmissions are studied. Rebuilding of automatic transmissions is introduced. Laboratory fee. (120 Contact Hours)

AT 231 Automatic Transmissions II (4)

Prerequisite: Credit or concurrent enrollment in Automotive Technology 229. This course is a continuation of Automotive Technology 229. Transmission rebuilding is continued with emphasis on in-service automobile repair. Laboratory fee. (120 Contact Hours)

AT 240 Basic Automotive Electronics (2)

Prerequisites: Automotive Technology 163 and Physics 131 or demonstrated competence approved by the instructor. A study of solid state and microprocessor electronics as related to an automotive electrical system with emphasis on inputs (sensors), outputs (actuators), and active devices. Diagnosis and repair procedures are covered using analog and digital test equipment. Laboratory fee. (60 Contact Hours)

AT 241 Automatic Transmissions I (3)

Prerequisites: Automotive Technology 163 and Physics 131 or demonstrated competence approved by the instructor. This course will cover the theory of automatic transmissions, as well as principles of operation and diagnosis of most popularly used automatic transmissions. This course establishes a firm foundation in principles and fundamentals for advanced application in Automotive Technology 242. All minor services, adjustments, and diagnostic procedures will be demonstrated. Laboratory fee. (90 Contact Hours)

AT 242 Automatic Transmissions II (3)

Prerequisites: Automotive Technology 240 and Automotive Technology 241 or demonstrated competence approved by the instructor. This course applies the principles and fundamentals from Automatic Transmissions I in the major repair and overhaul of specific transmissions. Proper safety procedures, disassembly, repair and reassembly procedures will be emphasized in order to accomplish a professional repair. Laboratory fee. (90 Contact Hours)

AT 243 Electrical Systems (3)

Prerequisite: Automotive Technology 163 and Physics 131 or demonstrated competence approved by the instructor. This course will cover the function of the automotive (high current) electrical system. Included will be a review of basic electrical theory and current flow. Emphasis will be given to alternator operation, D.C. motor operation, and trouble-shooting. Also covered will be wiring diagrams, switches, relays, fuses and light operation. Laboratory fee. (90-Contact Hours)

AT 244 Heating And Air Conditioning Systems (3)

Prerequisites: Automotive Technology 163 and Physics 131 or demonstrated competence approved by the instructor. This course will cover the fundamental operations of air conditioning and heating systems. Basic heat transfer will be reviewed. Emphasis will be given to the basic system operation as well as climate controls. Laboratory fee. (90 Contact Hours)

AT 245 Ignition And Emission Controls (3)

Prerequisites: Automotive Technology 240 or demonstrated competence approved by the instructor. Automotive Technology 245 is a course of study on the theory, operation, maintenance, diagnosis and repair of ignition systems and emission controls. This is the first of two courses on engine performance. Basic mechanical engine diagnosis will be reviewed. This course will include electronic ignition, distributorless ignition and emission control systems. Also included is fundamentals of electronic engine controls. Engine analyzers and scan tools will be introduced as a means to diagnose engine performance problems. Laboratory fee. (90 Contact Hours)

AT 246 Fuel And Emission Systems (3)

Prerequisite: Automotive Technology 245 or demonstrated competence approved by the instructor. Automotive Technology 246 is a continuation of Automotive Technology 245 and is a course of study on the theory, operation, maintenance, diagnosis and repair of fuel systems. It includes mechanical and electric fuel delivery systems. The use of engine analyzers and scan tools to diagnose engine performance problems will be emphasized. It will also include the adjustments and procedures related to computer "learn" strategies. Laboratory fee. (90 Contact Hours)

AT 247 Vehicle Driveability (3)

Automotive Technology 247 is a course of study on vehicle driveability using an holistic approach. It focuses on all vehicle systems and how their operation can affect engine performance and total vehicle driveability. Emphasis will be placed on procedures to isolate the problem to specific system(s) and to determine the root cause of the driveability complaint. Laboratory fee. (90 Contact Hours)

AT 248 Automotive Electronics (3)

Prerequisite: Automotive Technology 119 or demonstrated competency approved by the instructor. A study of solid state and microprocessor electronics used in the automotive electrical system with emphasis on diagnostic and trouble-shooting procedures and use of test equipment. Laboratory fee. (90 Contact Hours)

AT 249 LPG And CNG Automotive Applications (3)

Upon successful completion of this course, the student will be able to identify the components of an LPG and CNG fuel system used on passenger cars and light trucks. The student will be able to safely and properly install, service, maintain and fuel these types of vehicles. (90 Contact Hours)

AT 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Automotive Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. The seminars consist of topics which include introduction to co-op, orientation for developing the learning plan, work place procedures and ethics; preparation of repair orders, warranty claims and related documentation; developing service-oriented attitudes on the job; and investigation of automotive-related careers. (1 Lec., 15 Lab.)

AT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Automotive Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. The seminars consist of topics which include introduction to co-op, orientation for developing the learning plan, work place procedures and ethics; preparation of repair orders, warranty claims and related documentation; developing service-oriented attitudes on the job; and investigation of automotive-related careers. (1 Lec., 20 Lab.)

AT 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Automotive Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. The seminars consist of topics which include job site interpersonal relations, supervising subordinates and technical updates. (1 Lec., 15 Lab.)

AT 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Automotive technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. The seminars consist of topics which include job site interpersonal relations, supervising subordinates and technical updates. (1 Lec., 20 Lab.)

AT 743 Cooperative Work Experience (2)

Prerequisite: Enrollment in the Dealership-Sponsored program. This course consists of sixteen hours of seminars and ten weeks of full-time, on-the-job experience. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Theory and instruction received in the previous courses taught with an emphasis on a particular automobile manufacturer's products are applied at work in the sponsoring dealership. Seminars consist of topics which include technical application updates to particular automotive manufacturer's products and preparing the student for selected Automotive Service Excellence certification tests and their administration. (216 Contact Hours)

AT 753 Cooperative Work Experience (2)

Prerequisite: Enrollment in the Dealership-Sponsored program. This course consists of sixteen hours of seminars and ten weeks of full-time, on-the-job experience. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Theory and instruction received in the previous automotive courses taught immediately prior to each cooperative experience are applied at work in the sponsoring dealership. (216 Contact Hours)

AT 843 Cooperative Work Experience (2)

Prerequisite: Enrollment in the Dealership-Sponsored program. This course consists of sixteen hours of seminars and ten weeks of full-time, on-the-job experience. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Theory and instruction received in the previous automotive courses taught immediately prior to each cooperative experience are applied at work in the sponsoring dealership. (216 Contact Hours)

AT 853 Cooperative Work Experience (2)

Prerequisite: Enrollment in the Dealership-Sponsored program. This course consists of sixteen hours of seminars and ten weeks of full-time, on-the-job experience. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Theory and instruction received in the previous automotive courses taught immediately prior to each cooperative experience are applied at work in the sponsoring dealership. (216 Contact Hours)

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. This 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 (Airplane) Certificate with Instrument Rating or completion of Aviation Technology 121 and completion of or concurrent enrollment in Aviation Technology 224. 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 and the prerequisites fulfill the Ground School Requirements of FAR Part 141 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 ramjet. 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). Three hours in the synthetic flight trainer are required. A current Second-Class Medical Certificate is required. Flight and laboratory fee. (35 Contact Hours)

COMPUTER INTEGRATED MANUFACTURING

CIM 101 Introduction To CAD (3)

This is the first course in computer-aided design which can be used by electronics and mechanical technicians, architects and landscape architects or anyone who finds it necessary to learn to use a CAD system to produce graphics or interface with design software. Two dimensional multiview drawings and three dimensional wireframe models will be produced. Logging on, setting up a drawing, creating geometry, inserting dimensions and plotting the drawing will be covered. Laboratory fee. (1 Lec., 6 Lab.)

CIM 110 CAD For Production (4)

Prerequisite: Computer Integrated Manufacturing 101 or Engineering 105 or demonstrated competence approved by the instructor. This course is for students who have had little or no previous experience in producing CAD drawings used in manufacturing and design. Topics include orthographic projection, dimensioning, tolerancing, sections and auxiliaries. Emphasis will be placed on learning industry standards to produce a drawing or database. Experience is provided in using handbooks, catalogs and other resource materials. Laboratory fee. (2 Lec., 6 Lab.)

CIM 121 Introduction To Quality Control (2)

Prerequisite: Credit or concurrent enrollment in Math 195. This course introduces some of the concepts and techniques currently being used by industry to prevent defective products from reaching the consumer. Included are reliability analysis, control charts, inspection and sampling plans. The language, terminology and organization of typical industry quality control functions are studied. Elementary probability and statistics concepts are presented as background. (2 Lec.)

CIM 140 Fluid Power Systems (4)

The principles of industrial hydraulics and pneumatics are examined. Pumps, compressors, motors, cylinders, valves, fluids and conductors are studied. The analysis and design of fluid power circuitry is emphasized. Hydraulic and pneumatic circuits are set up and evaluated in the laboratory. Laboratory fee. (3 Lec., 3 Lab.)

CIM 188 Manufacturing Processes (2)

This course introduces the student to the steps involved in manufacturing a product. A variety of machine tools are used in the laboratory. Emphasis is placed on automation, and programming and operation of CNC machines. Laboratory fee. (1 Lec., 4 Lab.)

CIM 232 Applied Mechanics (4)

Prerequisite: Mathematics 196 or equivalent. The theory and applications of mechanics are presented. Basic statics and dynamics concepts are studied. Computer analysis and simulation techniques are introduced. 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 the laboratory supports lecture material on related topics. Computer-aided instructional materials and analysis techniques are utilized. Laboratory fee. (3 Lec., 3 Lab.)

CIM 243 Robotics I (3)

This course provides an introduction to robot technology. The basic components and systems used in industrial robots are studied. The setup and operation of robots and associated automatic control systems are emphasized. Laboratory fee. (2 Lec., 3 Lab.)

CIM 247 Robotics II (3)

Prerequisite: Computer Integrated Manufacturing 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.)

CIM 252 Design For Manufacturing (4)

Prerequisites: Computer Integrated Manufacturing 188, Computer Integrated Manufacturing 110 and Mathematics 196 or demonstrated competence approved by the instructor. This is an electro-mechanical design course which emphasizes integration of design and manufacturing. The student will study manufacturing from the view point of the designer who must determine critical dimensions and provide tolerances which will allow economical manufacturing, proper assembly and function. Laboratory fee. (2 Lec., 6 Lab.)

CIM 254 Advanced Computer-Aided Design (4)

Prerequisite: Computer Integrated Manufacturing 101 or demonstrated competence approved by the instructor. This is an advance applications course in computer-aided design. Three dimensional surface and solid models will be created and materials specifications added to the solid. The goal is to have the student master the operations of an interactive CAD system and utilize the most efficient process to create the geometry. Laboratory fee. (2 Lec., 6 Lab.)

CIM 258 CAD/CAM Interfacing (2)

Prerequisites: Computer Integrated Manufacturing 101 and 188 or demonstrated competence approved by the instructor. This course focuses on CNC process modeling where machine code is generated directly from the three dimensional graphics model. Wax prototyping is used to verify the code. Laboratory fee. (1 Lec., 4 Lab.)

CIM 270 Computer Integrated Manufacturing (4)

Prerequisite: Computer Integrated Manufacturing 247 or demonstrated competence approved by the instructor. This course introduces the concepts of Computer Integrated Manufacturing (CIM). Emphasis is placed on the use of computers to automate the total manufacturing system. Topics include manufacturing automation protocols, flexible manufacturing systems, artificial intelligence, and machine vision. Laboratory work provides hands-on experience in integrating CAD, robotics, NC machines, automated material handling, and automated testing in a CIM environment. (3 Lec., 3 Lab.)

CIM 291 Special Topics In Computer Integrated Manufacturing (3)

Prerequisites: Will vary based on topics covered and will be included in each semester's class schedule. Current developments in the rapidly changing field of computer-aided design and computer integrated manufacturing are studied. (1 Lec., 4 Lab.)

CIM 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Computer Integrated Manufacturing program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of discussions on the writing of effective competency-based objectives and other work related skills such as time management, resume writing, and human relations. (1 Lec., 15 Lab.)

COMPUTER SCIENCE**CS 113 Computing Science I (3)**

(Common Course Number COSC 1315)

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. This course will focus on problem-solving using modular design techniques implemented with structured programming in Pascal. Laboratory fee. (3 Lec., 1 Lab.)

(Coordinating Board Academic Approval Number 1102015227)

CS 114 Computing Science II (3)

(Common Course Number COSC 2318)

Prerequisites: Computer Science 113 and Math 101 or demonstrated competence approved by the instructor. This course is a continuation of Computer Science 113 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. (3 Lec., 1 Lab.)

(Coordinating Board Academic Approval Number 1102015327)

CS 121 Introduction To FORTRAN Programming (3)

(Common Course Number COSC 1317)

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 related field which requires 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.)

(Coordinating Board Academic Approval Number 1102015227)

CS 122 Introduction To BASIC Programming (3)

(Common Course Number COSC 1310)

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.)

(Coordinating Board Academic Approval Number 1102015127)

CS 123 Introduction To PL/I Programming (3)

(Common Course Number COSC 1333)

Prerequisites: Developmental Math 093 and Computer Science 113 or Computer Information Systems 101 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.)

(Coordinating Board Academic Approval Number 1102015127)

AVT 137 Flight Private Pilot (1)

This course provides 20 hours of flight instruction (10 hours dual and 10 hours solo flight). Preflight instruction and briefing are included. Students receive credit for the course upon completion of the flight prerequisite for the Private Pilot Flight Examination. Two hours in the synthetic flight trainer is required. Flight and simulator fee. (25 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. (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 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 school 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.)

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 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 preflight 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 preflight, takeoffs, endue 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 (3)

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. Simulator fee. (48 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 265 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 266 Flight Commercial II (3)

Prerequisites: Aviation Technology 265 and concurrent enrollment in Aviation Technology 123. This course provides 46 hours of flight instruction (10 hours dual instrument instruction and 36 hours of solo flight) to apply toward the Commercial Pilot Certificate. Preflight instruction and briefing are included, as are 5 hours of night flight. Flight and laboratory fee. (8 Lab., 46 Flight)

AVT 267 Flight Commercial III - Instrument (3)

Prerequisites: Private Pilot Certificate, Aviation Technology 266 and completion of or concurrent enrollment in Aviation Technology 224. This course provides 45 hours of Instrument flight instruction. Preflight instruction and briefing are included. Flight fee. (46 Flight)

AVT 268 Flight Commercial IV (3)

Prerequisites: Aviation Technology 123 and 267. This course provides 46 hours 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. Preflight instruction and briefing are included. Students receive course credit upon completion of the flight prerequisites to the Commercial Pilot Flight Examination. Flight fee and laboratory fee. (4 Lab., 46 Flight)

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 en route 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 704 Cooperative Work Experience (4)

Prerequisite: 15 Credit Hours. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 20 Lab.)

AVT 714 Cooperative Work Experience (4)

Prerequisite: 15 Credit Hours. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include dressing for success, how to advance in the job through off-duty education, and utilizing role models to achieve goals. (1 Lec., 20 Lab.)

AVT 804 Cooperative Work Experience (4)

Prerequisite: 15 Credit Hours. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (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 prerequisites:** 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 prerequisites:** 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 will gain practical experience in avionics equipment in aircraft and on the bench. Laboratory fee. (3 Lec., 3 Lab.)

BIOLOGY

BIO 101 General Biology (4)

(Common Course Number BIOL 1406)

This course is the first of a two semester sequence designed for students majoring or minoring in biology and related disciplines. Topics include but are not limited to the scientific method, general and biological chemistry, cell structure and function, cell reproduction, and molecular genetics. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2601015124)

BIO 102 General Biology (4)

(Common Course Number BIOL 1407)

This course is a continuation of Biology 101 and is intended for students majoring or minoring in biology and related disciplines. Topics include but are not limited to development, evolution, ecology, population genetics, and a review of the diversity of life. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2601015124)

BIO 110 Introductory Botany (4)

(Common Course Number BIOL 1411)

This course introduces plant form and function. Topics ranging from the cell through organs are included. Emphasis is on the vascular plants, including the taxonomy and life cycles of major plant divisions. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2603015124)

BIO 115 Biological Science (4)

(Common Course Number BIOL 1408)

This course is designed for all majors except science. Selected topics in biological science are presented to students not majoring in the sciences to promote their understanding of biological concepts and to enable them to use these concepts in their daily lives. Topics include chemistry and biochemistry, the cell, respiration, photosynthesis, cell reproduction, genetics, and reproduction and development. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2601015124)

BIO 116 Biological Science (4)

(Common Course Number BIOL 1409)

This course is designed for all majors except science. Selected topics in biological science are presented to students not majoring in the sciences to promote their understanding of biological concepts and to enable them to use these concepts in their daily lives. Topics include plant and animal systems, diversity of life and population dynamics, taxonomy, evolution, and ecology. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2601015124)

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.)

(Coordinating Board Academic Approval Number 2607065124)

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.)

(Coordinating Board Academic Approval Number 2607065124)

BIO 123 Applied Anatomy And Physiology (4)

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

BIO 203 Intermediate Botany (4)

Prerequisites: Biology 101 and 102. The major plant groups are surveyed. Emphasis is on morphology, physiology, classification, and life cycles. Evolutionary relationships of plants to each other and their economic importance to humans are also covered. (3 Lec., 3 Lab.)
(Coordinating Board Academic Approval Number 2603015124)

BIO 211 Invertebrate Zoology (4)

(Common Course Number BIOL 2418)

Prerequisite: Eight hours of biological science. This course surveys the major groups of animals below the level of chordates. Consideration is given to phylogeny, taxonomy, morphology, physiology, and biology of the various groups. Relationships and importance to higher animals and humans are stressed. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

BIO 216 General Microbiology (4)

(Common Course Number BIOL 2420)

Prerequisite: Biology 102 or 121 or demonstrated competence approved by the instructor. Topics include growth, reproduction, nutrition, genetics, and ecology of micro-organisms, 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.)

(Coordinating Board Academic Approval Number 2605015124)

BIO 218 Field Biology (3)

Local plant and animal life are surveyed in relationship to the environment. Aquatic and terrestrial communities are studied with reference to basic ecological principles and techniques. Emphasis is upon classification, identification, and collection of specimens in the field. This course may be repeated for credit. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 0301025124)

BIO 221 Anatomy And Physiology I (4)

(Common Course Number BIOL 2401)

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.)

(Coordinating Board Academic Approval Number 2607065124)

BIO 222 Anatomy And Physiology II (4)

(Common Course Number BIOL 2402)

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.)

(Coordinating Board Academic Approval Number 2607065124)

BIO 223 Environmental Biology (3)

(Common Course Number BIOL 2306)

The principles of aquatic and terrestrial communities are presented. Emphasis is on the relationship of these principles to the problems facing people in a modern technological society. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0301025124)

BIO 226 Genetics (4)

(Common Course Number BIOL 2416)

This course focuses on genetics. Topics include Mendelian inheritance, recombinant genetics, the biochemical theory of genetic material, and mutation theory. Plant and animal materials are used to study population genetics, linkage, gene structure and function, and other concepts of heredity. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2606135124)

BIO 230 Mammalian Physiology (4)

Prerequisite: Twelve hours of biology, eight hours of inorganic chemistry or concurrent registration in organic chemistry and demonstrated competence approved by the instructor. This course is a study of the function of various mammalian systems. Emphasis is on interrelationships. Instruments are used to measure various physiological features. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 2607065124)

BIO 235 Comparative Anatomy Of The Vertebrates (4)

Prerequisites: Biology 101 and 102. For science majors and pre-medical and pre-dental students. Major groups of vertebrates are studied. Emphasis is on morphology and evolutionary relationships. Laboratory fee. (3 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 2607065124)

BLUEPRINT READING

BPR 177 Blueprint Reading - Mechanical (2)

Engineering drawings are described and explained. Topics include multi view 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 - Architectural (2)

The different architectural type prints are read. Specifications and more complex prints such as structural, electrical, HVAC and plumbing are included. (1 Lec., 3 Lab.)

BUSINESS

BUS 105 Introduction To Business (3)

(Common Course Number BUSI 1301)

This course provides an introduction to business operations. Topics include: the business system, legal forms of business, organization and management, business functions (production, marketing, finance, risk management, Information systems, accounting) and the environments affecting business (the economy, labor, government regulation, social responsibility, law, international business, and technology). (3 Lec.)

(Coordinating Board Academic Approval Number 5201015125)

BUS 143 Personal Finance (3)

(Common Course Number BUSI 1307)

Personal financial issues are explored. Topics include financial planning, insurance, budgeting, credit use, home ownership, savings, investment, and tax problems. (3 Lec.)

(Coordinating Board Academic Approval Number 1904015125)

BUS 234 Business Law (3)

(Common Course Number BUSI 2301)

This course presents the legal principles affecting business decisions. The law of contracts, agency, sales, negotiable instruments, and secured transactions are specifically covered. (3 Lec.)

(Coordinating Board Academic Approval Number 2201015125)

CHEMISTRY

CHM 101 General Chemistry (4)

(Common Course Number CHEM 1411)

Prerequisites: Developmental Mathematics 093 or equivalent and any one of the following: high school chemistry, Chemistry 115, or the equivalent. This course is for science and science-related majors. Fundamental concepts of chemistry are presented including states and properties of matter, the periodic table, chemical reaction types and energy relationships, chemical bonding, atomic and molecular structure, stoichiometry, gas laws and solutions. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4005015239)

CHM 102 General Chemistry (4)

(Common Course Number CHEM 1412)

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 reaction kinetics and chemical equilibrium, acids, bases, salts and buffers, thermodynamics, colligative properties of solutions, electrochemistry, transition-metal chemistry, nuclear chemistry, qualitative inorganic analysis and an introduction to organic chemistry. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4005015239)

CHM 115 Chemical Science (4)

Prerequisite: Developmental Mathematics 091 or the equivalent. This course is for non-science majors. Fundamental concepts are presented in lecture and laboratory including the periodic table, atomic structure, chemical bonding, reactions, stoichiometry, states of matter, properties of metals, nonmetals and compounds, acid-base theory, oxidation-reduction, solutions and nuclear chemistry. Descriptive chemistry is emphasized. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4005015239)

CHM 116 Chemical Science (4)

Prerequisite: Chemistry 115 or demonstrated competence approved by the instructor. This course is for non-science majors. It surveys organic chemistry and biochemistry. The reactions, syntheses, nomenclature, uses, purposes and properties of the important classes of organic and biochemical compounds are studied. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4005015239)

CHM 201 Organic Chemistry I (4)

(Common Course Number CHEM 2423)

Prerequisite: Chemistry 102. This course is for science and science-related majors. It introduces the fundamental classes of organic (carbon) compounds and studies aliphatic and aromatic hydrocarbons in detail. It includes occurrence, structure, stereo-chemistry, nomenclature, and reactions and mechanisms of synthesis. Lab includes: synthesis, purification by distillation, recrystallization, extraction and chromatography, and identification by spectroscopic, physical and chemical methods. Laboratory fee. (3 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4005045239)

CHM 202 Organic Chemistry II (4)

(Common Course Number CHEM 2425)

Prerequisite: Chemistry 201. This course is for science and science-related majors. It is a continuation of Chemistry 201. Topics studied include properties and syntheses of aliphatic and aromatic systems of aldehydes, ketones, carboxylic acids, esters, ethers, amines, alcohols and amides. Further topics include polyfunctional and heterocyclic compounds, amino acids, proteins, lipids and carbohydrates. Laboratory includes qualitative organic analysis. Laboratory fee. (3 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4005045239)

CHM 203 Quantitative Analysis (4)

(Common Course Number CHEM 2401)

Prerequisite: Chemistry 102, Mathematics 101. A survey of methods used in analytical chemistry: gravimetric and volumetric methods based on equilibria, oxidation-reduction, and acid-base theory, spectrophotometry, chromatography and electroanalytical chemistry. (2 Lec., 6 Lab.)

(Coordinating Board Academic Approval Number 4005025139)

CHM 205 Chemical Calculations (2)

(Common Course Number CHEM 1207)

Prerequisite: Chemistry 102. Chemical calculations are reviewed. Emphasis is on stoichiometry and chemical equilibrium. (2 Lec.)

(Coordinating Board Academic Approval Number 4005025239)

CHM 234 Instrumental Analysis (4)

(Common Course Number CHEM 2402)

Prerequisite: Chemistry 203 or demonstrated competence approved by the instructor. The role of modern electronic instrumentation in analysis is explored. Topics include infrared and ultraviolet spectroscopy, gas chromatography, potentiometric titration, electrochemistry, continuous flow analysis, scintillation counting, electrophoresis, flame photometry, and atomic absorption spectrophotometry as analytical tools. Laboratory fee. (2 Lec., 6 Lab.)

(Coordinating Board Academic Approval Number 4005025139)

CHILD DEVELOPMENT**CD 100 Directed Participation Of Early Childhood Programs (1)**

This course provides in-depth observation and participation experiences and activities with young children at the Parent/Child Study Center and other appropriate child-care facilities. It is repeated four times concurrently with required Child Development core or elective courses. (30 Contact Hours)

CD 125 Infant And Toddler Learning Environments Activities And Materials (4)

This course is a study of appropriate learning experiences for infants and toddlers in child-care facilities. Emphasis is on quality environments, learning activities, materials and effective teaching techniques. The laboratory experience includes observing and participating in the Parent/Child Study Center and community child-care facilities. Laboratory fee. (3 Lec., 2 Lab.)

CD 127 Early Childhood Development, 5-12 Years (3)

This course covers the principles of normal child growth and development from five through twelve years of age. Emphasis is on physical, intellectual, emotional, and social growth. Special attention is given to before- and after-school care. (3 Lec.)

CD 128 Cultural Diversity In The Classroom (3)

This course is a study of diverse cultures. Emphasis is on research, community organizations, teaching techniques and appropriate early childhood classroom activities. (3 Lec.)

CD 135 Introduction To Early Childhood Programs And Services (4)

This course is a study of historical and current early childhood development programs and services, as well as individuals influencing these programs. Laws and standards regulating these child-care facilities are covered. The laboratory experience includes observation of and participation with pre-schools and child-care centers in the community. Laboratory fee. (3 Lec., 2 Lab.)

CD 137 Early Childhood Learning Environments, Activities And Materials (4)

This course is a study of appropriate learning experiences for young children in child-care facilities. Emphasis is on quality environments, learning activities, materials and effective teaching techniques. The laboratory experience includes observation and participation in the Parent/Child Study Center and community child-care facilities. Laboratory fee. (3 Lec., 2 Lab.)

**CD 140 Early Childhood Development,
0-3 Years (3)**

This course covers the principles of normal child growth and development from conception through three years. Emphasis is on physical, intellectual, emotional, and social growth. (3 Lec.)

**CD 141 Early Childhood Development,
3-5 Years (3)**

This course covers the principles of normal child growth and development from three through five years of age. Emphasis is on physical, intellectual, emotional, and social growth. (3 Lec.)

**CD 150 Nutrition, Health And Safety Of The Young
Child (3)**

Practical experience and information on the nutritional, health, and safety needs of the young child are provided. A survey of community services for parents and teachers is included. Students earn a first aid certificate during this course. Laboratory fee. (2 Lec., 2 Lab.)

CD 200 Application Of Learning Theories (1)

This course provides application of child development learning theories with young children at the Parent/Child learning Study Center and other appropriate child-care facilities. It is repeated four times concurrently with required Child Development core or elective courses. (30 Contact Hours)

**CD 203 Parents And The Child
Caregiver/Teacher (3)**

Relationships between caregivers, teachers and parents of young children are studied. Emphasis is on ways to develop parental involvement in child-care facilities. The course includes observation and participation with teachers, parents, and young children in group settings. (3 Lec.)

**CD 209 Early Childhood Development Special
Projects (3)**

Registration for this course must be preceded by an interview with a child development instructor. A particular dimension of child-care is explored in depth by the student in an individual project. Participation in a designated child-care center or facility directly related to the student's special project is included. This course is repeatable for credit as topics vary. (3 Lec.)

**CD 233 Directed Participation Of Early Childhood
Programs (4)**

This course provides in-depth observation and participation experiences and activities with young children at the Parent/Child Study Center and other appropriate child-care facilities. Laboratory fee. (2 Lec., 5 Lab.)

**CD 236 The Special Child: Growth And
Development (3)**

Children with special needs are studied with emphasis on physical, mental, and emotional/behavioral problems. This course provides a broad overview of these problem areas and serves as an introduction to the study of exceptional children. (3 Lec.)

CD 239 Studies In Child Guidance (3)

This course is a study of appropriate ways of guiding and teaching young children. Emphasis is on guidance principles that develop a positive self-concept in early childhood while recognizing individual differences and varied family situations. The course includes observation of and participation with young children in child-care facilities and interpretation of anecdotal records and case studies of young children. Laboratory fee. (2 Lec., 2 Lab.)

**CD 244 Application Of Child Development Learning
Theories (4)**

Prerequisite: Child Development 233. This course provides application of child development learning theories with young children at the Parent/Child Study Center and other appropriate child-care facilities. Laboratory fee. (2 Lec., 5 Lab.)

**CD 250 Supportive Services For Exceptional
Children (3)**

The focus of this course is on identifying local, state, and 10 national resources for exceptional children and their families. Referral and resource information for special children is gathered through field studies, community involvement, and independent activities. (3 Lec.)

**CD 251 Learning Programs For Children with
Special Needs (4)**

This course focuses on successful model programs for encouraging maximum learning from young children with special needs. Materials, activities, and methods of working with children are examined. Laboratory fee. (2 Lec., 5 Lab.)

CD 253 Abuse Within The Family (3)

The symptoms and causes of abusive behaviors within the family are the focus of this course. Emphasis is on developing skills and competencies in working with these families to help them lessen and alleviate abusive behaviors and experiences. Laboratory fee. (2 Lec., 2 Lab.)

**CD 254 Introduction To Administration Of Child
Care Programs (3)**

The management of preschool/day care centers is studied. Topics include budgeting, record-keeping, food, health and referral services, and personnel practices. Laboratory fee. (2 Lec., 2 Lab.)

CD 256 Advanced Administrative Practices For Child Care Facilities (3)

Prerequisite: Child Development 254. This course is a study of advanced administrative procedures for child-care programs. Topics include planning, financial management, personnel policies, evaluation, leadership styles, and facility design. Laboratory fee. (2 Lec., 2 Lab.)

CD 702 Cooperative Work Experience (2)

Prerequisites: Completion of two courses in the Child Development program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Instructor and employer will evaluate the student's job performance. The seminars consist of introduction to co-op, orientation to job learning objectives, writing learning plan and developing college degree plan. (1 Lec., 10 Lab.)

CD 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Child Development program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Instructor and employer will evaluate the student's job performance. The seminars consist of exploring education, planning for work, exploring personal and social growth, clarifying career goals and developing individual potential. (1 Lec., 15 Lab.)

CD 804 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Child Development program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Instructor and employer will evaluate the student's job performance. The seminars consist of discussing life's transitions (professional and personal), developing communication skills, appraising self and career performance and exploring stress management techniques. (1 Lec., 20 Lab.)

CHINESE

CHI 101 Beginning Chinese I (4)

(Common Course Number CHIN 1411)

This course is a beginning course in Chinese. Oral practice, elementary reading, and grammar will be stressed. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1603015131)

CHI 102 Beginning Chinese II (4)

(Common Course Number CHIN 1412)

Prerequisite: Chinese 101 or the equivalent. This course continues the oral practice, elementary reading, and grammar studies begun in Chinese 101. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1603015131)

CHI 201 Intermediate Chinese I (3)

(Common Course Number CHIN 2311)

Prerequisite: Chinese 102 or the equivalent. Reading, cultural background, conversation, and composition are stressed in this course. (3 Lec.)

(Coordinating Board Academic Approval Number 1603015231)

CHI 202 Intermediate Chinese II (3)

(Common Course Number CHIN 2312)

Prerequisite: Chinese 201 or the equivalent. This course is a continuation of Chinese 201, with stress on reading, cultural background, conversation, and composition. (3 Lec.)

(Coordinating Board Academic Approval Number 1603015231)

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. TASP remediation and/or preparation may be included. Students may enroll in up to three different sections of CLS during one semester. (1 Lec.)

(Coordinating Board Academic Approval Number 3201015235)

COMMUNICATIONS

COM 131 Applied Communications (3)

Prerequisite: An appropriate assessment test score (ACT, DCCCD, or SAT). 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.)

(Coordinating Board Academic Approval Number 2311015135)

COMPUTER AIDED DESIGN & DRAFTING

CAD 101 CAD Operations (2)

This course provides instruction in hardware selection, setup and use of a CAD station. Emphasis is placed on control of the operating system, file management and keyboarding. Other topics include software installation, hardware installation and configuration, such as mouse, tablet, printers, plotters, graphics adapters and other configurable items such as communication ports, and serial ports. An introduction to word processing and spread sheets is included. Laboratory fee. (1 Lec., 2 Lab.)

CAD 135 CAD/Graphic Processes (2)

Equipment, media and processes used to print, plot and reproduce multiple copies of technical drawings and art are studied. Topics include preparing drawings to be offset printed in multiple colors; techniques of shading and varying line weights for laser printers; sizing and inserting electronic art into files created by word processors; preparing silk screen art for panels, printed circuit boards, etc. and the use of screened prints for technical art works such as PCB and shade line drawings and other current topics in CAD. (1 Lec., 3 Lab.)

CAD 136 Civil Design (3)

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 a residential subdivision, a shopping center, or some other type of land development. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 161 Manufacturing Fundamentals (3)

Manufacturing fundamentals and production methods including NC-CNC concepts are studied. Emphasis is on automation and set up for operation of CNC machines. The student will be able to interpret and describe information required to produce a CNC program. The functions and role of CAD and its relationship to computer aided manufacturing are studied. Laboratory fee. (2 Lec., 4 Lab.)

CAD 182 Technician Drafting (2)

This course focuses on the reading and interpretation of engineering drawings. Topics include multi view drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams, and printed circuit boards. Laboratory fee. (1 Lec., 3 Lab.)

CAD 183 Basic Drafting (4)

This course is for students who have had little or no previous experience in conventional drafting procedures or computer aided drafting. Topics include orthographic projection, dimensioning, tolerancing, sections, auxiliaries and fasteners. Emphasis will be on learning drafting conventions to produce technical sketches and drawings while the student learns the basic operations of interactive CAD systems. Experience is provided in using handbooks and other resource materials. No previous background in the use of computers is required. Laboratory fee. (2 Lec., 6 Lab.)

CAD 185 Architectural Design (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. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 6 Lab.)

CAD 230 Structural Design (3)

Prerequisites: Computer Aided Design 183. 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. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 231 Electronic Design (3)

Prerequisite: Computer Aided Design 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. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 232 CAD Illustration (3)

Prerequisite: Computer Aided Design 245. The rendering and creation of three-dimensional drawings and models are covered. Engineer sketches and orthographic drawings are developed into isometric, oblique and perspective drawings and models. Exploded views and cutaway drawings are created and fully indexed as required by repair and installation description or part lists. Models are shaded using current software programs. Laboratory fee. (2 Lec., 4 Lab.)

CAD 235 Facilities Management Design (3)

Prerequisite: Computer Aided Design 245. Students completing this course have the basic knowledge for the job of facilities drafter. Commercial space plans and extracting of data from these plans is covered. Details of modular furniture, free standing furnishings, reflected ceiling, plans including heating ventilating and air conditioning vents are drawn. Locating and specifying of these elements is examined in detail. After commercial spaces are drawn, and furniture, lighting and HVAC elements are located on the drawing, a computer generated listing of all items is created. The student is required to create the form for this list from commonly used software. Plans for spaces such as offices, restaurants, manufacturing areas, banks and etc. are assigned. Laboratory fee. (2 Lec., 4 Lab.)

CAD 236 Pipe Design (3)

Prerequisites: Computer Aided Design 183 and Mathematics 195 or the equivalent. This course presents the methods of piping of fluids for refineries, petrochemical plants, and industrial facilities. ASME codes are applied to the design of pressure vessels, pipe fitting, welded and seamless piping, pumps, and heat exchanges. Drawing techniques are emphasized in orthographic isometric projections. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 237 Advanced 3-D Illustration (3)

Prerequisites: Computer Aided Design 232 and 245. The creation, rendering and animation of technical art for technical publications is pursued in-depth. Slide shows, VCR output and hard copies of complex drawings and models are produced. Complex exploded views, cutaways, and external views of current industrial equipment and products are produced in black and white and color. Laboratory fee. (2 Lec., 4 Lab.)

CAD 240 Printed Circuit Design (3)

Prerequisite: Computer Aided Design 231, concurrent enrollment in Computer Aided Design 231 or the equivalent. This course develops skills in the design of double-sided and multi-layer printed circuit boards. Students design boards from schematics, parts lists, and manufacturing specifications. Some boards are designed for manual parts insertion and taped art works. Others are designed for automatic parts insertion and taped art works. Others are designed for automatic parts insertion and digitized inputs for art works. The use of the computer to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 241 Integrated Circuit Design (3)

Prerequisites: Computer Aided Design 240, Electronics Technology 190 or the equivalent. Must be taken concurrently with Electronics Technology 250. This course develops skills in the design of integrated circuits. Electronic theory and laboratory exercises in active devices are combined with drafting lectures and laboratory drafting to enable students to design simple integrated circuits from schematic diagrams and given design rules. Laboratory fee. (2 Lec., 4 Lab.)

CAD 242 Advanced Integrated Circuit Design (3)

Prerequisite: Computer Aided Design 241. This course develops skills in the design of complex integrated circuits. Students work from schematic diagrams and two sets of given rules. Work is done to meet industrial standards of current technologies. Laboratory fee. (2 Lec., 4 Lab.)

CAD 243 Advanced Printed Circuit Design (3)

Prerequisite: Computer Aided Design 240. This course includes the design of double-sided, multi-layer, surface-mounted, and flex-cable printed circuit boards. Students select various types of integrated circuit chips while applying pen swapping and gate combination techniques. Industry standards are followed in design development. The use of computers to produce drawings is encouraged. Laboratory fee. (2 Lec., 4 Lab.)

CAD 245 Computer Aided Design (3)

Prerequisite: Computer Aided Design 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.)

CAD 246 Advanced CAD-Electronic (3)

Prerequisites: Computer Aided Design 231. Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to printed circuit board design. Menu and library construction will be practiced while using the interactive graphic system. Laboratory fee. (2 Lec., 4 Lab.)

CAD 247 Applied Printed Circuit Design (3)

Prerequisite: Computer Aided Design 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.)

CAD 248 Advanced CAD-Mechanical (3)

Prerequisite: Computer Aided Design 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.)

CAD 249 Advanced CAD-Architectural (3)

Prerequisites: Computer Aided Design 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.)

CAD 250 Electromechanical Packaging Design (3)

Prerequisite: Computer Aided Design 245. This course includes layout and design of electromechanical equipment from engineering notes, sketches and catalogs. Full size design layouts are created using parts drawn and saved in a parts library. Detail drawings of sheet metal parts and complete parts lists are developed from the design layout. Practical wiring diagrams are created from sketches and notes. The computer is used to produce all drawings in this course. Laboratory fee. (2 Lec., 4 Lab.)

CAD 252 Advanced CAD-Menu Customizing And LISP (3)

Prerequisite: Computer Aided Design 245. Advanced CAD software for personal computers is studied. Increasing productivity of computer drafting and design systems through task analysis and the creation of menus, macros, and programmed routines is the emphasis in this course. Extracting data from drawings containing blocks with attributes is also covered. Laboratory fee. (2 Lec., 4 Lab.)

CAD 253 Geometric Dimensioning And Tolerancing (3)

This course provides instruction in geometric dimensioning and tolerancing as described in the ANSI-Y-14.5 standard. The topics of true position, form, tolerances data and accurate tolerancing from a given point are covered in detail. Using problems developed by professional designers, students will design accurate parts to meet accepted industry standards. (2 Lec., 4 Lab.)

CAD 255 Selected Topics In Drafting (3)

Prerequisite: Demonstrated competence 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. This course may be repeated for credit when topics vary. Laboratory fee. (2 Lec., 4 Lab.)

CAD 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Computer Aided Design and Drafting program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of an introduction to cooperative education, orientation to learning on the job, writing the learning plan, college resources available, and college degree plans. (1 Lec., 20 Lab.)

CAD 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Computer Aided Design and Drafting program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of the world of education, work and retirement; setting goals; writing a resume; and how to look for a job. (1 Lec., 20 Lab.)

CAD 803 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Computer Aided Design and Drafting program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of transitions in life, communication skills, performance appraisals, and effective use of power. (1 Lec., 15 Lab.)

CAD 813 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Computer Aided Design and Drafting program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of human potential, motivation, what to look for in a career, and trends in drafting occupations. (1 Lec., 15 Lab.)

COMPUTER INFORMATION SYSTEMS

CIS 101 Introduction to Computer Applications And Concepts (4)

This course introduces the use of computers in business organizations, professional activities and personal life. Topics include terminology, hardware components, systems and application software, systems development of applications, and use of contemporary software application packages (such as word processing, spreadsheet, database, and graphics). Laboratory fee. (3 Lec., 3 Lab.)

CIS 103 Introduction to Computer Information Systems (3)

This course presents an overview of computer information systems with an emphasis on business applications. Topics include terminology, systems and procedures, and the role of computers and their evolution in an information-oriented society. The fundamentals of computer problem solving are applied through the use of the BASIC programming language and application software packages. Laboratory fee. (3 Lec., 1 Lab.)

CIS 106 Problem Solving With The Computer (4)

This course explores the methods of providing computerized solutions to business problems. Analysis and design methods and tools are studied and applied to practical situations involving various business functions. Topics include problem solving skills, logic structures, and programming. (3 Lec., 4 Lab.)

CIS 111 Data Entry Applications And Concepts (3)

Prerequisite: Office Careers 176 or one year typing in high school or demonstrated competence approved by the instructor. 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 create, change, and modify data sets, as well as enter variable data. Speed and accuracy will be stressed. Laboratory fee. (2 Lec., 4 Lab.)

CIS 116 Systems Management/Operations I (4)

Prerequisite: Credit or concurrent enrollment in Computer Information Systems 101 or demonstrated competence approved by the instructor. The interrelationships among computer systems, hardware, software, and personnel are covered. Topics include tasks associated with systems management and computer operations; peripheral device fundamentals; physical file concepts; using job documentation, standards, operating procedures, control language; and analyzing output and audit logs. Laboratory fee. (3 Lec., 4 Lab.)

CIS 121 Text Processing Applications (4)

Prerequisite: Computer Information Systems 101 or demonstrated competence approved by the instructor. The course covers the use of microcomputers in preparing and editing documents, the mechanics of writing and the composition of various types of communications including letters. Topics include entry and editing, reformatting, search and replace, cut-and-paste, file and print operations, utilities including spelling checkers, outliners, and office productivity tools. Office automation concepts including desk top publishing, facsimile and networking are covered. Students will learn to use commercially available text processors. Laboratory fee. (3 Lec., 4 Lab.)

CIS 126 Systems Management/Operations II (4)

Prerequisites: Computer Information Systems 101 and Computer Information Systems 116 or demonstrated competence approved by the instructor. Concepts and functions of an operating system in a multi-user environment using physical and logical files are presented. Topics include system and control language programming and commands; interpretation of messages and codes; maintaining system security; introduction to data communications; data base screen and report design aids, query and update methods used on mainframes, midrange, and personal computer systems. Laboratory fee. (3 Lec., 4 Lab.)

CIS 160 Data Communications And Operating Systems (3)

Prerequisite: Computer Information Systems 101 or demonstrated competence approved by the instructor. This course provides a survey of operating environments and data communications, including vocabulary, concepts, and uses. Topics include connectivity, operating system functions, data communications hardware, software, networks, and protocols. (3 Lec.)

CIS 162 COBOL Programming I (4)

Prerequisites: Computer Information Systems 101, credit or concurrent enrollment in Computer Information Systems 106, or demonstrated competence approved by the instructor. This course develops structured programming skills using the COBOL language. Topics include input/output, comparisons, control breaks, introductory table concepts, and report formats. Skills in problem analysis, using design tools, coding, testing, and documentation are also developed. Laboratory fee. (3 Lec., 4 Lab.)

CIS 164 COBOL Programming II (4)

Prerequisites: Computer Information Systems 106 and 162 or demonstrated competence approved by the instructor. This course continues the development of programming skills using the COBOL language. Topics include advanced table concepts, sort techniques, disk file organizations and maintenance, debugging techniques, copy techniques, and subprograms. Laboratory fee. (3 Lec., 4 Lab.)

CIS 169 Application Development Tools (4)

Prerequisite: Three credit hours in a programming language course or demonstrated competence approved by the instructor. This course introduces application development tools and their relationship to software productivity. Topics include survey and definition of available products and their uses, current functions, evaluation standards, selection and implementation. Laboratory fee. (3 Lec., 4 Lab.)

CIS 170 RPG Programming (3)

Prerequisite: Three credit hours in a programming language course or demonstrated competence approved by the instructor. This course introduces programming skills using an RPG language. Topics include basic listings with levels of totals, array processing, exception reporting, sequential and keyed file processing. Laboratory fee. (2 Lec., 2 Lab.)

CIS 172 BASIC Programming (3)

Prerequisite: Computer Information Systems 101 or demonstrated competence approved by the instructor. This course covers the fundamentals of the BASIC programming language. Topics include structured program development, Input/Output operations, interactive concepts and techniques, selection and iteration, arrays, functions, string handling, and file processing. Laboratory fee. (2 Lec., 2 Lab.)

CIS 173 Pascal Programming For Business (3)

Prerequisite: Three credit hours in a programming language course 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 200 Fundamentals Of Networking (3)

Prerequisite: Computer Information Systems 160 or demonstrated competence approved by the instructor. This course presents the fundamentals of computer networking. Topics include network planning, cost evaluation, design, and implementation. (3 Lec., 1 Lab.)

CIS 205 Control Language And Operating Environments (4)

Prerequisite: Computer Information Systems 162 or 116 or demonstrated competence approved by the instructor. This course introduces mainframe operating system concepts, terminology, job control language, and utilities. Laboratory fee. (3 Lec., 4 Lab.)

CIS 207 Network Software (4)

Prerequisite: Credit or concurrent enrollment in Computer Information Systems 200 and credit or concurrent enrollment in Computer Information Systems 221, or demonstrated competence approved by the instructor. This course presents networking software as applied to local area networks. Topics include the OSI reference model, IEEE 802 standards for LANS, LAN protocols, network utilities, NETBIOS, network security and control, the log-in process, application software in the network environment, and licensing agreements. Students will learn to use commercially available LAN software. (3 Lec., 4 Lab.)

CIS 210 Assembly Language I (4)

Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course focuses on basic concepts and instructions using a current mainframe assembler language and structured programming techniques. Topics include decimal features, fixed point operations using registers, selected macro instructions, introductory table concepts, editing printed output, and reading memory dumps. Laboratory fee. (3 Lec., 4 Lab.)

CIS 212 C Programming (4)

Prerequisite: Six credit hours in programming language courses or demonstrated competence approved by the instructor. This course covers the fundamentals of the C Programming language. Topics include structured programming and problem solving techniques. Laboratory fee. (3 Lec., 4 Lab.)

CIS 215 Micro Assembly Language (4)

Prerequisite: Six credit hours in programming language courses or demonstrated competence approved by the instructor. The basic elements of the assembler language are introduced and structured programming and top-down design techniques are applied. Topics include architecture and machine definition, data description and other assembler pseudo-ops, logic and shift, arithmetic processing, table concepts, printing, string and screen processing, macro definition, and disk processing. Laboratory fee. (3 Lec., 4 Lab.)

CIS 218 Spreadsheet Applications (4)

Prerequisites: Computer Information Systems 101 and 106 or demonstrated competence approved by the instructor. The course covers the theory and uses of electronic spreadsheets using commercially available packages. Topics include formula creation, template design, formatting features, statistical, mathematical and financial functions, file operations, report generation, graphics, and macro programming. 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 mainframe assembler language. Topics include advanced fixed point operations, indexing, disk file organization and maintenance, advanced table concepts, data and bit manipulation techniques, macro writing, subprogram linkages, advanced problem analysis, debugging techniques, and introduction to floating point operations. Laboratory fee. (3 Lec., 4 Lab.)

CIS 221 PC Operating Systems And Utilities (4)

Prerequisites: Six credit hours in Computer Information Systems or demonstrated competence approved by the instructor. This course covers operating system concepts and includes scheduling, data and memory management, the use of batch files, and "path techniques" to facilitate efficient use of secondary storage. Back-up techniques, operating system commands, and operating system enhancer programs and utilities will be analyzed. Laboratory fee. (3 Lec., 3 Lab.)

CIS 224 PC Hardware (3)

Prerequisite: Credit or concurrent enrollment in Computer Information Systems 221 or demonstrated competence approved by the instructor. This course presents a functional systems-level review of PC hardware and the organization of components and devices into architectural configurations. Students will learn how to prepare and evaluate system specifications, trouble-shoot minor hardware problems, modify and patch short assembler language programs. Laboratory fee. (2 Lec., 3 Lab.)

CIS 225 Systems Analysis And Design (4)

Prerequisite: Computer Information Systems 164 or demonstrated competence approved by the instructor. This course introduces and develops skills to analyze existing business systems, to design new systems using structured methodology, and to prepare documentation. Emphasis is on a case study involving all facets of systems analysis and design. (3 Lec., 4 Lab.)

CIS 228 Database Applications (4)

Prerequisites: Computer Information Systems 101 and 106 or demonstrated competence approved by the instructor. This course covers microcomputer database management concepts using commercially available software. Topics include terminology, organizing data and designing files, report and menu generation, indexing, selection/queries, browsing, file operations, and program development. 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 data base environment with emphasis on loading, modifying, and querying a data base. Topics include data base design, data management, and structured query language. Laboratory fee. (3 Lec., 4 Lab.)

CIS 256 Computer Center Management (3)

Prerequisites: Computer Information Systems 126 or demonstrated competence approved by the instructor. The management of a computer center is examined. Topics include management theory, production, scheduling, security, networking, basic problem determination and system tuning. Methods for computer selection and evaluation are also presented. (3 Lec.)

CIS 258 On-Line Applications (4)

Prerequisites: Computer Information Systems 160 and 164 or demonstrated competence approved by the instructor. This course introduces the concepts required to program on-line applications. Topics include on-line applications design, program coding techniques, testing methods, and file handling. Laboratory fee. (3 Lec., 4 Lab.)

CIS 260 Contemporary Topics In Computer Information Systems (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 Information Systems (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. May be repeated when topics vary. (3 Lec.)

CIS 263 Special Topics In Computer Information Systems (3)

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 information systems are studied. May be repeated when topics vary. Laboratory fee. (2 Lec., 2 Lab.)

CIS 265 Special Topics In Computer Information Systems (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 information systems are studied. May be repeated as topics vary. Laboratory fee. (3 Lec., 4 Lab.)

CIS 272 Advanced BASIC Techniques (3)

Prerequisite: Computer Information Systems 172 or demonstrated competence approved by the instructor. This course continues the development of programming skills using the BASIC language and its application to typical business problems. Topics include multidimensional arrays, random access files, and graphics. Laboratory fee. (2 Lec., 2 Lab.)

CIS 275 User Documentation And Training (3)

Prerequisites: Speech Communication 101, Computer Information Systems 121 or comparable word processing course or demonstrated competence approved by the instructor. This course covers the practical application of adult learning theory, product documentation, creating user guides and reference manuals, using tutorials, evaluating and using training materials, effective training experiences, concepts of desk top publishing, and presentation graphics. (3 Lec., 1 Lab.)

CIS 277 Network Hardware (4)

Prerequisites: Computer Information Systems 207 and credit or concurrent enrollment in Computer Information Systems 223, or demonstrated competence approved by the instructor. This course presents networking hardware as applied to local area networks. Topics include LAN cabling, work stations, network interface cards, servers, bridges, gateways, routers, uninterruptible power supplies, surge and sag devices, and troubleshooting. Students will learn how to install, operate, maintain, and troubleshoot LAN hardware. (3 Lec., 4 Lab.)

CIS 281 Applied Studies (3)

Prerequisites: Computer Information Systems 224 and twelve additional credit hours from this option or demonstrated competence approved by instructor. This course applies PC analyst skills to business situations. Topics include planning and implementing solutions to business-related problems, incorporating student knowledge of hardware, software, applications packages, training, documentation, communication skills, and problem solving skills. (2 Lec., 3 Lab.)

CIS 287 Network Problems And Applications (4)

Prerequisites: Computer Information Systems 207 and credit or concurrent enrollment in Computer Information Systems 277, or demonstrated competence approved by the instructor. This course presents networking problems and applications associated with local area networks. Topics include integration of network resources, network/application interaction, hardware and software conflicts, technical documentation, LAN management, archiving and backup, and common network problems. (3 Lec., 4 Lab.)

CIS 297 UNIX Operating System (4)

Prerequisite: Computer Information Systems 101 or demonstrated competence approved by the instructor. This course introduces the UNIX operating system and includes topics about the file system, the shell, standard editor, and shell programming. (3 Lec., 4 Lab.)

CIS 701 Cooperative Work Experience (1)

Prerequisite: Completion of two courses in the Computer Information Systems program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, vendor presentation and professional development. (1 Lec., 5 Lab.)

CIS 702 Cooperative Work Experience (2)

Prerequisite: Completion of two courses in the Computer Information Systems program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, vendor presentation and professional development. (1 Lec., 10 Lab.)

CIS 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Computer Information Systems program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, vendor presentation and professional development. (1 Lec., 15 Lab.)

CIS 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Computer Information Systems program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, vendor presentation and professional development. (1 Lec., 20 Lab.)

CIS 712 Cooperative Work Experience (2)

Prerequisite: Completion of one course in Computer Information Systems 701, 703 or 704. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include setting and writing job objectives and directed independent studies of computer-related topics such as expert systems, new vendor products or presentation graphics. (1 Lec., 10 Lab.)

CIS 713 Cooperative Work Experience (3)

Prerequisite: Completion of one course in Computer Information Systems 701, 703 or 704. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include setting and writing job objectives and directed independent studies of computer-related topics such as expert systems, new vendor products or presentation graphics. (1 Lec., 15 Lab.)

CIS 714 Cooperative Work Experience (4)

Prerequisite: Completion of one course in Computer Information Systems 701, 703 or 704. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include setting and writing job objectives and directed independent studies of computer-related topics such as expert systems, new vendor products or presentation graphics. (1 Lec., 20 Lab.)

CS 212 Assembly Language (4)

(Common Course Number COSC 2325)

Prerequisite: Computer Science 114 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. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1102015427)

CS 221 Introduction To Computer Organization (3)

(Common Course Number COSC 1306)

Prerequisite: Computer Science 114 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.)

(Coordinating Board Academic Approval Number 1101015227)

CS 222 Introduction To File Processing (3)

(Common Course Number COSC 2315)

Prerequisite: Computer Science 114 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.)

(Coordinating Board Academic Approval Number 1102015327)

CONSTRUCTION MANAGEMENT AND TECHNOLOGY

CMT 121 Construction Materials, Methods And Equipment I (3)

This course introduces construction materials, methods, and equipment. The origin, nature, and normal uses of materials are investigated. The integration of materials into finished projects is also covered. Laboratory fee. (2 Lec., 3 Lab.)

CMT 122 Construction Materials, Methods And Equipment II (3)

This course continues the study of construction materials, methods, and equipment. Laboratory fee. (2 Lec., 3 Lab.)

CMT 123 Construction Graphics (4)

Construction technology and construction graphic communications are introduced. The student learns to read blueprints and understand the expressed and implied meanings of symbols, conventions, and drawing. Free-hand sketching and basic drafting required of construction supervisors are also included. (2 Lec., 6 Lab.)

CMT 124 Electrical And Mechanical Equipment For Buildings (4)

The nature and use of materials and equipment in various systems are explained. Included are plumbing, heating, ventilation, air conditioning, electrical, and conveying systems. (3 Lec., 3 Lab.)

CMT 133 The Construction Industry (2)

This course will introduce one to the challenging and complex world of commercial and industrial construction. It will profile the construction industry, define its organizational structure, discuss the implications and ramifications of current market trends, provide an overview of construction management methodologies and information systems. Interrelationships between architects, engineers, contractors, agencies, organizations, and trades will be discussed. (2 Lec.)

CMT 136 Surveying And Measurements (4)

Prerequisites: Mathematics 102 or 196 and Engineering 105 or Construction Management Technology 123. This course focuses on plane surveying. Topics include surveying instruments, basic measuring procedures, vertical and horizontal control, error analysis, and computations. Traverse, triangulation, route alignments, centerings, profiles, mapping, route surveying and land surveying are included. Field work provides application of theory for students with little or no survey training. Laboratory fee. (3 Lec., 5 Lab.)

CMT 138 Construction Management I (4)

This course covers the responsibilities of a supervisor. Topics include organization, human relations, grievances, training, rating, promotion, quality and quality control, management-employee relations, scheduling of work, and job and safety instructions. Roles played by labor and management in the development of American industry are studied. Forces affecting labor supply, employment, and industrial relations in a democracy are analyzed. Emphasis is on safety and its value to economic operations and employee morale. (3 Lec., 3 Lab.)

CMT 220 Advanced Surveying And Measurement (4)

Prerequisites: Mathematics 196 and Construction Management Technology 136 or the equivalent. This course reviews the basic principles of surveying and measurements. It covers advanced principles and theories of physical measurements of spatial quantities, theory of errors and error adjustment techniques, the use of modern instruments and measurement systems, vertical and horizontal control measurements and an introduction to land surveying law, application of polynomial curves and polar equations to the vertical and horizontal alignment of route systems. Field problems put the theory into practice. Laboratory fee. (3 Lec., 5 Lab.)

CMT 230 Quality Control And Cost Control (4)

Prerequisites: Construction Management Technology 121, 122, and 234, or demonstrated competence approved by the instructor. The different procedures for scheduling construction projects are discussed then applied in lab exercises. Scheduling procedures to be explored include bar charts, precedence and arrow diagrams and the critical path method of scheduling. Methods and techniques for evaluating construction budget estimates and for locating and correcting budget overruns are discussed and then implemented in various lab exercises as a means of cost and quality control. (3 Lec., 3 Lab.)

CMT 231 Construction Contracts And Specifications (3)

Prerequisites: Construction Management and Technology 121, 122 and 123 or demonstrated competence approved by the instructor. Written construction communications are the focus of this course. Included is the study of construction contracts and specifications. Their preparation, implementation, modification, administration, and legal pitfalls are covered. Laboratory fee. (2 Lec., 3 Lab.)

CMT 232 Safety Management (3)

This course provides an in-depth study of the OSHA regulations which pertain to construction. Responsibilities and liabilities of all parties to construction contracts are addressed. Emphasis is placed on on-site safety management policies, procedures, and reports that are necessary to ensure a safe and healthy work site. Students completing this course will receive or update their CPR certification. Major historical events and developments leading to the enactment of the Occupational Safety and Health Act are also reviewed. (3 Lec., 1 Lab.)

CMT 233 Commercial Estimating (4)

Prerequisites: Construction Management Technology 123 and credit or concurrent enrollment in Construction Management and Technology 231 or demonstrated competence approved by the instructor. A study of the principles and theories of estimating including quantity take-off, labor and material units, classification of work are examined. Students learn to compute and assemble labor, material, and equipment costs. Job overhead, office overhead and profit strategies are examined. Computerized estimating procedures are introduced. Laboratory fee. (2 Lec., 6 Lab.)

CMT 235 Building Codes (3)

Using the Uniform Building Code as the textbook, this course presents the construction methods in relation to basic code and zoning requirements. The interrelationships between Federal, State, and municipal authorities and construction methodologies are examined in detail. (2 Lec., 2 Lab.)

CMT 236 Building Codes and Safety (4)

This course presents construction methods in relation to zoning and building codes and occupational safety standards and regulations. The interrelationships among federal, state and municipal authorities and construction operations are examined in detail. Emphasis is placed on the development and implementation of effective loss and accident prevention planning. (3 Lec., 3 Lab.)

CMT 237 Soils, Foundations And Reinforced Concrete (4)

Prerequisites: Construction Management and Technology 121 and 122; Engineering 289 desirable. Soil characteristics for a good foundation are studied. Topics include soil sampling and testing. Concrete design, placement, and testing are also covered. Some study of asphaltic pavements is included. Laboratory fee. (3 Lec., 3 Lab.)

CMT 238 Construction Management II (4)

Prerequisite: Construction Management and Technology 138. This course examines project planning and development. Topics include feasibility studies, financing, planning, programming, design, and construction. Office engineering techniques and problem-solving are covered. (3 Lec., 3 Lab.)

CMT 239 Introduction To Construction Specification Writing (3)

This course will concentrate on the organization and preparation of written construction documents. Emphasis will be placed on further developing concepts initially covered in Construction Management & Technology 231, as well as studying the development and application of master specifications, preliminary project descriptions, outline specifications, and both full, and abbreviated construction documents. Computer applications and automated editing procedures will also be demonstrated and applied. Laboratory fee. (2 Lec., 2 Lab.)

CMT 249 Advanced Construction Specification Writing (3)

This course will apply the principles and practices learned in Construction Management & Technology 239 to the actual preparation and administration of written construction documents for a mock project from schematic phase through bidding. Emphasis will be placed on collecting, organizing, and applying information; researching products and systems; developing rough and final drafts for each type of specification. Methods for coordinating written documents with the drawings and the written documents of other team members will also be investigated. Laboratory fee. (2 Lec., 2 Lab.)

CMT 279 Specification Administration (3)

This course will develop administrative skills necessary for a specification writer to function in an office where multiple roles must be performed. Roles include: managing a technical library, maintaining data bases, performing cost budgeting, implementing a continuing education/quality assurance program, assisting in the bidding and construction phases, and archiving of documents. Laboratory fee. (2 Lec., 2 Lab.)

CMT 703 Cooperative Work Experience (3)

Prerequisite: Completion of 30 hours in Construction Management & Technology Program or coordinator approval. This course will combine formal education with practical field experience. The CMT program coordinator, employer, and student will develop a competency-based learning plan that will enhance the long-term objective of the student. The lecture portion of this course will include job interview techniques, resume preparation, interpersonal skills, and employer expectations of the employee. (1 Lec., 15 Lab.)

CMT 704 Cooperative Work Experience (4)

Prerequisite: Completion of 30 hours in the Construction Management & Technology Program or coordinator approval. This course will combine formal education with practical field experience. The CMT program coordinator, employer, and student will develop a competency-based learning plan that will enhance the long-term objective of the student. The lecture portion of this course will include job interview techniques, resume preparation, interpersonal skills, and employer expectations of the employee. (1 Lec., 20 Lab.)

EGR 290 Mechanics Of Structures (2)

Prerequisite: Mathematics 196. This is a basic course in engineering mechanics for technology students. It covers the principles of statics and strengths of materials. Topics include force systems, equilibrium, moments, centroids, elasticity, yield, stresses and strains. Methods analysis and design of bolted and welded joints, trusses, beams, and columns are introduced. Laboratory fee. (2 Lec., 2 Lab.)

CONSTRUCTION TECHNOLOGY

CT 110 Construction I-Systems And Materials (3)

This course is a study of the different types of building systems and materials used in the design and construction of residential and commercial buildings. Different structural building systems will be studied, and wood-related products, concrete and concrete masonry, brick, stone, and steel units are included. (3 Lec.)

CT 111 Construction II-Mechanical, Electrical, And Plumbing Systems (3)

Prerequisite: Construction Technology 110 or demonstrated competence approved by the instructor. This course is a study of the mechanical and electrical systems used in modern buildings of today. Topics that will be covered include the basic understanding of how electrical, heating, air conditioning, and plumbing systems work and how they are designed for residential and light commercial buildings. (3 Lec.)

CT 115 Blueprint Reading/Specifications (3)

The course covers the theory of projection, architectural symbols, relationship of views and measurements, plan and elevation views, sections and details. Also included are terms, specifications, and abbreviations used in reading residential and light commercial building blueprints. (3 Lec.)

CT 116 Commercial Blueprints/Specifications (3)

Prerequisites: Construction Technology 110 and 115 or demonstrated competence approved by the instructor. This course covers commercial building blueprints and specifications. Topics covered include masonry wall, reinforced concrete, prestressed concrete, tilt-up, steel-frame and stairs, and elevators. (3 Lec.)

CT 117 Construction Safety (1)

This course covers safety and job site working conditions for the construction industry. Some of the topics include safety planning, safety and health standards, regulations and codes, record keeping and accident documentation, hazardous materials, safety equipment and drug usage on construction jobs. (1 Lec., 1 Lab.)

CT 118 Codes and Inspections I (3)

Prerequisite: Construction Technology 110 or demonstrated competence approved by the instructor. This course considers inspection procedures and codes. Topics covered include basic code requirements, use of standards in developing codes, model codes, role of the federal government, office and field operations, and building permits. Using the Uniform and Southern Building Codes as enforcement guides, the course reviews residential and light commercial building and minimum property standards. (3 Lec.)

CT 120 Foundations I (3)

Prerequisites: Construction Technology 115 and 117. This course is a comprehensive course that includes Construction Technology 121, 122, and 123. Students may register in the comprehensive course or the inclusive courses. This course covers the construction of foundations for residential and light commercial buildings. Topics studied are builder's level and rod, site preparation for forms on grade, footings, piers and low wall foundations, flat work, curbing and low steps. Laboratory fee. (90 Contact Hours)

CT 121 Site Preparation And Layout (1)

Prerequisites: Construction Technology 115 and 117 or demonstrated competence approved by the instructor. This is the first of three courses on residential and light commercial foundations and will center on site layout, use of builder's level and rod, locating building lines and erecting batter boards. Laboratory fee. (30 Contact Hours)

CT 122 Slabs On Grade (1)

Prerequisites: Construction Technology 115, 117 and 121 or demonstrated competence approved by the instructor. This course will cover slabs on grade for residential and light commercial buildings. Topics covered include study of soils, construction of building slabs, curb and gutter, and edge forms. Laboratory fee. (30 Contact Hours)

CT 123 Low Wall Forms (1)

Prerequisites: Construction Technology 115, 117 and 121 or demonstrated competence approved by instructor. This course will cover low wall and low step forming. Topics covered include low form wall construction, basements, low stair forms and job planning with emphasis on job safety. Laboratory fee. (30 Contact Hours)

CT 125 Building Construction I (3)

Prerequisites: Construction Technology 115 and 117 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 126 and 127. Students may register in the comprehensive course or the inclusive courses. This course covers the basics of rough framing for residential and light commercial buildings. Topics include safety, equipment required, job planning, floor, wall, ceiling and roof framing systems. Laboratory fee. (90 Contact Hours)

CT 126 Framing (2)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by instructor. This course focuses on the basics of rough framing for residential and light commercial buildings. The topics covered include planning, layout and installation of rough framing members for floors, walls, partitions, and basic components of a roof system. Laboratory fee. (60 Contact Hours)

CT 127 Roof Systems (1)

Prerequisites: Construction Technology 115, 117 and 126 or demonstrated competence approved by instructor. This course covers the construction of basic gable and equal span intersecting roofs. Topics include study of roof framing principles, planning, layout, installation of roof framing members, selection of materials and use of local building codes with emphasis on job safety. Laboratory fee. (30 Contact Hours)

CT 130 Finish Systems I (3)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 131, 132 and 133. Students may register in the comprehensive course or the inclusive courses. This course focuses on the completion of the interior finish work performed on residential and small commercial buildings. Main topics covered include insulation and ventilation, drywall and wall finish, flooring, paneling, doors and hardware, and molding and trim work. Laboratory fee. (90 Contact Hours)

CT 131 Wall And Ceiling Finish (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course will focus on insulation and ventilation, wall and ceiling finish, and paneling. Laboratory fee. (30 Contact Hours)

CT 132 Doors And Hardware (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course will focus on doors and hardware. Topics include job planning, use of blueprints and specifications in determining types, styles and quantity required, and door and hardware installation. Laboratory fee. (30 Contact Hours)

CT 133 Trim And Millwork (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers millwork, molding and specialty trim work and floor covering. Other topics include job planning, blueprints and specifications for use in determining material requirements. Laboratory fee. (30 Contact Hours)

CT 134 Cabinetry And Millwork (3)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers cabinet design, construction, and detailed millwork. Topics include cabinet design and installation, built-in cabinetry and paneling, cost and drawings. Laboratory fee. (90 Contact Hours)

CT 135 Engineering Principles And Practices (3)

Prerequisites: Construction Technology 110 and Math 195 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 136 and 137. Students may register in the comprehensive course or the inclusive courses. This course is an overall study in the correct use of structural materials. Special emphasis is placed on the use of specification tables, technical manuals, and load tables for building systems and materials. Topics covered are structural mechanics, steel, wood, reinforced concrete, and roof trusses. Residential and both light and heavy commercial building structures will be studied. Laboratory fee. (2 Lec., 2 Lab.)

CT 136 Engineering Principles (1)

Prerequisites: Construction Technology 110 and Math 195 or demonstrated competence approved by the instructor. This course covers the basic principles of building engineering design. Topics include forces and stress, moments and reactions, shear and bending moments, and theory of bending and properties of sections. (1 Lec.)

CT 137 Engineering Practices (2)

Prerequisites: Construction Technology 110 and 136 and Math 195 or demonstrated competence approved by instructor. This course covers the basic engineering most commonly used in planning residential and light commercial buildings. Topics include soils, concrete, steel, wood, and trusses. Emphasis will be placed on using charts and tables to determine loads and sizing of various materials. Laboratory fee. (1 Lec., 2 Lab.)

CT 138 Job Site Foreman-Supervision (3)

This course introduces job site techniques which are important to good supervision. Topics covered include supervisor's role, leadership, motivation, communications, training for production, planning, and organizing. This course was developed as a comprehensive training program for job site foremen. Laboratory fee. (2 Lec., 1 Lab.)

CT 140 Estimating I (3)

Prerequisites: Construction Technology 110 and 115 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 141 and 142. This course is designed to train the construction worker in the preparation of cost estimates for residential and light commercial structures. Topics include mathematics, construction techniques, estimating cycle, data sources and use, checklists, and detailed and unit quantity estimating methods. The emphasis in this course will be on establishing material requirements using residential and light commercial blueprints. Laboratory fee. (3 Lec., 1 Lab.)

CT 141 Basic Estimating (2)

Prerequisites: Construction Technology 110 and 115 or demonstrated competence approved by the instructor. This course focuses on the basics of cost estimating. Topics include essential mathematics, estimating cycle, data sources, checklists, blueprints and specifications, estimating formats and bids, contracts, bonds, insurance, overhead and contingencies, labor and equipment checklists. (2 Lec.)

CT 142 Residential Estimating (2)

Prerequisites: Construction Technology 110, 115 and 141 and Math 195 or demonstrated competence approved by the instructor. This course develops a bid package for a residential and/or light commercial building using skills developed in Construction Technology 141. Topics include construction techniques, residential estimating cycle, residential data sources and use, checklists, and detailed and unit quantity estimating methods. The emphasis in this course will be on developing a bid package for a residential and/or light commercial building. Laboratory fee. (1 Lec., 1 Lab.)

CT 143 Building Design (3)

Prerequisites: Construction Technology 110 and 115 or demonstrated competence approved by the instructor. This course introduces basic design principles as applied to building construction, architectural style, land, and site planning. Topics covered include plan analysis, modular design, restrictions and legal aspects of the lot, site layout, architectural styles and basic components, technological advances in new material and methods, and choosing the most appropriate basic structure. (3 Lec.)

CT 145 Field Surveying (3)

Prerequisites: Construction Technology 110 and 115 and Math 195 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 146 and 147. Students may register in the comprehensive course or the inclusive courses. This course covers proper methods of measuring distances, the builder's level and rod, and building layout using the transit. Topics covered include taping, builder's level and rod, cut and fill, differential leveling, use of various types of transits and methods of building layout, turning angles, and establishing control points using construction blueprints. Laboratory fee. (2 Lec., 3 Lab.)

CT 146 Leveling And The Builder's Level (1)

Prerequisites: Construction Technology 115 and 117 or demonstrated competence approved by the instructor. This course focuses on measuring distances and the practical uses of the builder's level used in the construction of a building. Topics covered include measuring horizontal and vertical distances, errors and accuracy in measuring, leveling equipment and field set up, differential leveling, cut and fill, contours and slopes, drainage and grading, establishing grades for form work, and piers and inserts. Use of drawings and leveling equipment will be covered. Laboratory fee. (1 Lec., 1 Lab.)

CT 147 Field Layout And The Transit (2)

Prerequisites: Construction Technology 110, 115 and 146 and Math 195 or demonstrated competence approved by the instructor. This course covers the use of the transit in building layout. Topics covered include a study of various types of transits and their care and use, measuring and turning angles, using land surveys, field notes, setting line and grade, establishing control points, setting curves, and establishing building points. Laboratory fee. (1 Lec., 2 Lab.)

CT 212 Commercial Systems, Materials, And Equipment (3)

Prerequisites: Construction Technology 110, 115 and 116 or demonstrated competence as approved by the instructor. This course focuses on systems and materials used in commercial buildings. Topics covered are heavy masonry, prestressed and precast concrete, structural steel, glass curtain walls, elevators, and interior and exterior finish materials. (3 Lec.)

CT 213 Codes And Inspections II (3)

Prerequisites: Construction Technology 110, 115, 116, 118 and 212 or demonstrated competence approved by the instructor. This course continues the study of building codes and inspections centering on commercial building. Topics include local building codes, enforcement, testing labs, job site testing and inspections by private testing companies. (3 Lec.)

CT 215 Reinforced Concrete And Steel-Frame Structures (3)

Prerequisites: Construction Technology 116, 136 and 212 and Math 195 or demonstrated competence approved by the instructor. This course applies Construction Technology 136 skills in an in-depth study of reinforced concrete and steel frame construction. Topics include soils, reinforcing steel, properties of concrete and steel, limitations, design methods, codes, flexure and shear in concrete and steel beams, anchorage and connectors, and columns and piers, with the emphasis placed on commercial structures. Laboratory fee. (2 Lec., 2 Lab.)

CT 216 Building And Contracting (3)

Prerequisites: Construction Technology 110 and 115 and Business 105. This course covers the basic process of organizing and operating a building or contracting business. Topics covered include establishing goals, organization, directing, staffing, coordinating and controlling, and budgeting required to operate and make a profit in a construction business. (3 Lec.)

CT 217 Estimating II (4)

Prerequisites: Construction Technology 110, 115 and 140 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 218 and 219. This course covers computerized estimating principles and applications for the construction industry and focuses on a commercial estimate. Topics covered include DOS commands, spreadsheets, job tracking, commercial software packages, commercial estimating techniques and organization, cost analysis and cost control, overhead cost control, cost comparisons, and development of a bid package. Laboratory fee. (3 Lec., 3 Lab.)

CT 218 Computerized Estimating (3)

Prerequisites: Construction Technology 110, 140 and Math 195 or demonstrated competence approved by the instructor. This course covers computerized estimating principles and applications for the construction industry. Topics covered include DOS commands, applications to estimating and bid analysis, spreadsheets, job tracking, commercial software packages. A cost estimate will be developed during course to demonstrate varied concepts. Laboratory fee. (2 Lec., 2 Lab.)

CT 219 Commercial Estimating (1)

Prerequisites: Construction Technology 110, 115 and 140 or demonstrated competence approved by the instructor. This course will cover the estimating process and focus on commercial bidding. Topics included are estimating techniques, organization, completion of bid forms, cost analysis, cost control, overhead cost control, cost comparisons, and bidding using commercial blueprints. Laboratory fee. (1 Lec., 1 Lab.)

CT 220 Foundations II (3)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 221, 222 and 223. Students may register in the comprehensive course or the inclusive courses. This course covers commercial foundation layout and forming systems. Topics covered include scaffolding and shoring, low and high wall forms, vertical piers and columns, horizontal beam forms, suspended slabs, stair forms, tilt-up, pre-cast construction and flying forms. Laboratory fee. (90 Contact Hours)

CT 221 Walls And Columns (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers construction of form work for high walls, vertical pier and column forms and scaffolding. Laboratory fee. (30 Contact Hours)

CT 222 Suspended Slabs And Beams (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers construction of horizontal beam and suspended slab forming systems. Also included are topics on job planning, material selection and storage, and scaffolding with an emphasis on safety. Laboratory fee. (30 Contact Hours)

CT 223 Specialty Forms And Stairs (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course will cover tilt-up and pre-cast building, flying forms and stair forms. Other topics covered are planning, materials selection and storage, and scaffolding with an emphasis on safety. Laboratory fee. (30 Contact Hours)

CT 225 Building Construction II (3)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 226, 227 and 228. Students may register in the comprehensive course or the inclusive courses. This course will continue wood framing with advanced concepts in the construction of various types of roofs and exterior wall and roof finish systems. Topics include selection and installation of exterior doors and windows and trim. Exterior finish systems such as wall coverings, roofing, and cornice will be applied to the various styles of buildings and roof styles. Laboratory fee. (90 Contact Hours)

CT 226 Advanced Roof Systems (1)

Prerequisites: Construction Technology 115, 117 and 127 or demonstrated competence approved by the instructor. This course will continue the study of roof systems already begun in Construction Technology 127. Topics covered include unequal span intersecting roofs, hip roofs, dormers, skylights and structural timber framing. Emphasis will be placed on job planning and safety. Laboratory fee. (30 Contact Hours)

CT 227 Exterior Finish I (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course introduces completion of the exterior trim work. Topics covered include roof trim and cornice work, exterior doors and windows. Laboratory fee. (30 Contact Hours)

CT 228 Exterior Finish II (1)

Prerequisites: Construction Technology 110, 117 and 227 or demonstrated competence approved by the instructor. This course focuses on completion of the exterior wall and roof finish work. Topics covered include roof covering and methods, masonry, stucco and wood wall finish systems, and job planning. Laboratory fee. (30 Contact Hours)

CT 230 Finish Systems II (3)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course is a comprehensive course that includes Construction Technology 231, 232 and 233. Students may register in the comprehensive course or the inclusive courses. This course covers interior finish of commercial buildings. Included are store fronts, metal stud framing, wall finish systems, movable partitions, dropped and suspended ceiling systems, specialty fixtures and hardware, and stair construction. Laboratory fee. (90 Contact Hours)

CT 231 Metal Studs And Suspended Ceilings (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers metal stud framing and wall finish treatments for commercial buildings. Topics included are metal stud framing, factory built partitions, and suspended ceiling systems. Laboratory fee. (30 Contact Hours)

CT 232 Commercial Doors And Hardware (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by the instructor. This course covers commercial doors, hardware and specialty fixtures. Topics include commercial doors and metal jambs, finish hardware, store fixtures, factory-built cabinets and laminates. Laboratory fee. (30 Contact Hours)

CT 233 Stair Building (1)

Prerequisites: Construction Technology 110, 115 and 117 or demonstrated competence approved by instructor. This course covers the construction and installation of interior stairs. Topics covered include stair types and parts, wood and metal stairs, layout and installation of job and factory-built stairs, building codes, and blueprints. Laboratory fee. (30 Contact Hours)

CT 235 Field Supervision I (3)

This course covers human relations and how to develop motivation on the job site. Topics include written and oral communications, leadership and motivation, problem solving and decision making. Laboratory fee. (90 Contact Hours)

CT 240 Field Supervision II (3)

This course covers areas from contract documents, planning and scheduling, along with cost awareness and production control. Topics covered include document information and construction decisions, peripheral documents, large project CPM, production control, work and cost analysis. Laboratory fee. (90 Contact Hours)

CT 245 Field Supervision III (3)

This course covers safety and loss control, project management, construction law, and productivity improvement. Topics covered include project layout start-up, OSHA, reading a construction contract, contract and construction law, and documentation of project activities. Laboratory fee. (90 Contact Hours)

CT 250 Contemporary Topics In Construction (1)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (1 Lec.)

CT 251 Contemporary Topics In Construction (2)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. Laboratory fee. (1 Lec., 1 Lab.)

CT 252 Contemporary Topics In Construction (3)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (3 Lec.)

CT 253 Special Topics In Construction Technology (3)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Current developments in the field of construction are studied. May be repeated when topics vary. Laboratory fee. (2 Lec., 2 Lab.)

CT 254 Special Topics In Construction Technology (4)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Current developments in the field of construction are studied. May be repeated when topics vary. Laboratory fee. (3 Lec., 3 Lab.)

CT 255 Special Projects In Construction Technology (1)

Prerequisite: Will vary based on projects covered and will be annotated in each semester's schedule. Current developments in the field of construction will be developed. May be repeated when topics vary. (30 Contact Hours)

CT 256 Special Projects In Construction Technology (3)

Prerequisite: Will vary based on project covered and will be annotated in each semester's schedule. Current developments in the field of construction will be developed. May be repeated when topics vary. Laboratory fee. (90 Contact Hours)

CT 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Construction Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 15 Lab.)

CT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Construction Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 20 Lab.)

CT 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Construction Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 15 Lab.)

CT 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Construction Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 20 Lab.)

CRIMINAL JUSTICE**CJ 130 Fundamentals Of Criminal Law (3)**

(Common Course Number CRIJ 1310)

A study of the nature of criminal law is presented. The philosophical and historical development of criminal law is covered. Major definitions and concepts are given. The classification of crime is covered. The elements of crimes and penalties are discussed using Texas statutes as illustrations. Criminal responsibility is defined. (3 Lec.)

CJ 132 The Courts And Criminal Justice (3)

(Common Course Number CRIJ 1306)

The judiciary in the criminal justice system is explained. The structure of the American Court System is defined. Prosecutorial right to counsel is explained. Other areas covered are pretrial release, grand juries, adjudication process, and types of rules of evidence and sentencing. (3 Lec.)

CJ 139 Crime In America (3)

(Common Course Number CRIJ 1307)

American crime problems are studied in the historical perspective. Social and public policy factors affecting crime are discussed. The impact of crime and crime trends are shown along with the social characteristics of specific crimes. The prevention of crime is emphasized. (3 Lec.)

CJ 140 Introduction To Criminal Justice (3)

(Common Course Number CRIJ 1301)

This course is a study of history and philosophy of criminal justice including ethical considerations. Topics include the definition of crime, the nature and impact of crime, an overview of the criminal justice system, law enforcement, court system, prosecution and defense, trial process, and corrections. (3 Lec.)

CJ 143 Practical Spanish For Public Service

Personnel (3)

This course is primarily for police officers. It focuses on communication skills with the Spanish-speaking community. Skills in understanding, speaking, and listening to the Spanish of the local area are included. Emphasis is on a highly specialized vocabulary taught in English and Spanish. Extensive conversational drills in Spanish are included. (3 Lec.)

CJ 144 Practical Spanish For Public Service

Personnel (3)

Prerequisite: Criminal Justice 143. This course is a continuation of Criminal Justice 143. Emphasis continues on the skills of understanding, speaking, and listening. Specialized vocabulary and conversational drills in English and Spanish are also continued. (3 Lec.)

CJ 148 Texas Peace Officers Law (3)

(Common Course Number CRIJ 2333)

Prerequisite: Thirty semester hours of approved academic courses to include fifteen hours of the transfer curriculum in Law Enforcement. This course is a study of laws that are directly related to police field work. Topics include traffic, intoxicated driver, Penal Code, elements of crimes, the Family Code, Alcoholic Beverage Code and civil liability. This course qualifies for four TCLEOSE training points. (3 Lec., 2 Lab.)

CJ 150 Texas Peace Officer Procedures (3)

(Common Course Number CRIJ 2334)

Prerequisite: Criminal Justice 148 or concurrent enrollment. This course is a study of the techniques and procedures used by police officers on patrol. Topics include controlled substance identification, handling abnormal persons, traffic collision investigation, note taking and report writing, vehicle operation, traffic direction, crowd control and jail operations. This course qualifies for four TCLEOSE training points. (3 Lec., 2 Lab.)

CJ 232 Texas Peace Officer Skills (3)

(Common Course Number CRIJ 2335)

Prerequisites: Criminal Justice 148 and 150 or concurrent enrollment. This course includes the demonstration and practice of the skills expected of a police officer. Topics include patrol, traffic stops, use of force, mechanics of arrest, firearms safety and emergency medical care. This course qualifies for five TCLEOSE training points. (4 Lec., 2 Lab.)

CJ 240 Criminal Investigation (3)

(Common Course Number CRIJ 2314)

Prerequisite: Criminal Justice 140. This course covers investigative theory. Topics include the collection and preservation of evidence, sources of information, and interview and interrogation. The uses of forensic sciences and case and trial preparation are also included. (3 Lec.)

CJ 242 Juvenile Procedures (3)

(Common Course Number CRIJ 2322)

Prerequisite: Criminal Justice 140. This course covers recent research and new materials in juvenile procedures. Emphasis is on the major responsibilities of police work with children and youth. (3 Lec.)

CJ 244 Traffic Planning And Administration (3)

(Common Course Number CRIJ 2331)

Prerequisite: Criminal Justice 140. The magnitude and complexities of traffic problems are presented. Topics include techniques used by various agencies to eliminate or control these problems. Emphasis is on evaluation of problems and solutions. (3 Lec.)

CJ 247 Legal Aspects of Law Enforcement (3)

(Common Course Number CRIJ 2323)

This course covers police authority, responsibilities, and constitutional constraints. Topics include laws of arrest, search and seizure, and police liability. (3 Lec.)

CJ 248 Police Systems and Practices (3)

(Common Course Number CRIJ 2328)

The police profession is studied. The organization of law enforcement systems is explained. Other topics include the police role, police discretion, ethics, and police/community interaction. Current and future issues are emphasized. (3 Lec.)

CJ 250 Correctional Systems And Practices (3)

(Common Course Number CRIJ 2313)

The relationship of corrections in the Criminal Justice system, the organization of correctional systems, and the correctional role are covered. Attention is given to institutional operations, alternatives to institutionalization, treatment and rehabilitation, and current and future issues. (3 Lec.)

CJ 251 Community Resources In Corrections (3)

(Common Course Number CRIJ 2301)

This course is an introductory study of the role of the community in corrections. Community programs for adults and juveniles and the administration of community programs are covered. Legal issues and future trends are presented. (3 Lec.)

CJ 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Criminal Justice program. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, and professional development. (1 Lec., 15 Lab.)

CJ 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Criminal Justice program. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include job interview and application techniques, job site interpersonal relations, preparation of resumes, building self-esteem, setting and writing job objectives, time and stress management techniques, career interest/aptitude test, evaluation and planning, and professional development. (1 Lec., 20 Lab.)

CJ 713 Cooperative Work Experience (3)

Prerequisite: Completion of one course in Criminal Justice 703 or 704. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include setting and writing job objectives. (1 Lec., 15 Lab.)

CJ 714 Cooperative Work Experience (4)

Prerequisite: Completion of one course in Criminal Justice 703 or 704. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Student must develop new learning objectives each semester. The seminar consists of topics which include setting and writing job objectives.

(1 Lec., 15 Lab.)

DANCE**DAN 116 Rehearsal and Performance (1)**

(Common Course Number DANC 1151)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 155 Jazz I (1)

(Common Course Number DANC 1147)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 156 Jazz II (1)

(Common Course Number DANC 1148)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 160 Introduction to Dance History (3)

(Common Course Number DANC 2303)

A history of dance forms is presented. Primitive, classical, and contemporary forms are included. (3 Lec.)

(Coordinating Board Academic Approval Number 5003015430)

DAN 161 Beginning Ballet I (2)

(Common Course Number DANC 1241)

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 center floor combinations are given. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 163 Beginning Ballet II (2)

(Common Course Number DANC 1242)

Prerequisite: Dance 161. This course is a continuation of Dance 161. Emphasis is on expansion of combinations at the barre. Connecting steps learned at center are added. Jumps and pirouettes are introduced. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 165 Beginning Contemporary Dance I (2)

(Common Course Number DANC 1245)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 166 Beginning Contemporary Dance II (2)

(Common Course Number DANC 1246)

Prerequisite: Dance 165. This course continues and further develops an exploration of Dance 165. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 200 Rehearsal and Performance (1)

(Common Course Number DANC 1152)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 234 Introduction to Composition I (1)

(Common Course Number DANC 1101)

Prerequisite: Demonstrated competence approved by the instructor. Development of basic principles and theories involved in composition are studied. Emphasis is placed on movement principles, group and structural forms. This course may be repeated for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 5003015530)

DAN 235 Introduction to Composition II (1)

(Common Course Number DANC 1102)

Prerequisites: Dance 234 and demonstrated competence approved by the instructor. This course is a continuation of Dance 234. This course may be repeated for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 5003015530)

DAN 252 Coaching and Repertoire (1)

(Common Course Number DANC 1112)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 253 Improvisation (1)

(Common Course Number DANC 1113)

Prerequisite: Dance 156 or 163. This course consists of creative problem-solving utilizing basic elements of design. This course may be repeated for credit. Laboratory fee. (2 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 255 Jazz III (1)

(Common Course Number DANC 2147)

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.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 256 Jazz IV (1)

(Common Course Number DANC 2148)

Prerequisite: Dance 255. This course is a further exploration of Dance 255. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 258 Intermediate Ballet I (2)

(Common Course Number DANC 2241)

Prerequisite: Dance 163. The development of ballet techniques is continued. More complicated exercises at the barre and center floor are included. Emphasis is on long series of movements, adagio and jumps. Precision of movement is stressed. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 260 Intermediate Ballet II (2)

(Common Course Number DANC 2242)

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. This course may be repeated for credit. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 265 Intermediate Contemporary Dance I (2)

(Common Course Number DANC 2245)

Prerequisite: Dance 166. This course consists of the development of complex falls, combinations, phrasing, and dramatic emphasis. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DAN 266 Intermediate Contemporary Dance II (2)

(Common Course Number DANC 2246)

Prerequisite: Dance 265. This course is a further exploration of Dance 265. This course may be repeated for credit. Laboratory fee. (1 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5003015230)

DESIGN**DES 110 Basic Color Theory And Application (3)**

The principles of color theory are studied using a selected color system. The effect of light on color and the psychological impact of color are explored. Color pigment is mixed in opaque media. The content of the course is applied to the student's discipline. Laboratory fee. (2 Lec., 4 Lab.)

DES 128 Introduction To Mass Production Apparel (2)

Mass production in the fashion industry is analyzed. (2 Lec.)

DES 129 Industrial Garment Construction (1)

The equipment, techniques and skills used in making mass produced apparel are studied. Laboratory fee. (3 Lab.)

DES 135 Textiles (3)

This course focuses on fibers, yarns, fabrics, and finishing processes. Included are the identification and analysis of all types of construction methods and their application in industry. The history of traditional textiles is described. Comparisons are made with contemporary developments. A guided design systems approach is used. (2 Lec., 2 Lab.)

DES 136 Fashion Sketching (3)

The structure of the fashion figure is explored. Simple methods for making quick sketches which communicate style information are emphasized. (2 Lec., 4 Lab.)

DES 140 Draping (1)

Prerequisite: Pattern Design 151. Dress designs are creatively interpreted on individual dress forms. Sketches or abstract designs are translated to muslin. Laboratory fee. (2 Lab.)

DES 141 Grading (1)

Prerequisite: Pattern Design 151. The standard production pattern is emphasized. Both large and small sizing is included. The student is introduced to computerized grading. Laboratory fee. (2 Lab.)

DES 229 Advanced Clothing Construction (3)

Prerequisite: Design 129. Advanced techniques of garment construction are studied. Total garments are completed. Laboratory fee. (2 Lec., 3 Lab.)

DES 234 History Of Costume (3)

This course traces the development of garments from the earliest times through the 18th Century. Emphasis is on the customs which affect styles. (3 Lec.)

DES 235 History Of Costume (3)

This course traces the development of garments from the 18th century to the present day. Emphasis is on the customs which affect styles. (3 Lec.)

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.)

(Coordinating Board Academic Approval Number 3201085135)

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.)

(Coordinating Board Academic Approval Number 3201085135)

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.)

(Coordinating Board Academic Approval Number 3201015235)

DEVELOPMENTAL MATHEMATICS

Developmental Mathematics courses offer a review of mathematical skills. Developmental Mathematics 093 satisfies prerequisites for Mathematics 101, 111, 115, 116 and 117. Developmental Mathematics 091 satisfies prerequisites for Mathematics 130 and 195.

DM 060 Basic Mathematics I (1)

This course is designed to give an understanding of fundamental operations. Selected topics include whole numbers, decimals, and ratio and proportions. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 061 Basic Mathematics II (1)

This course is designed to give an understanding of fractions. Selected topics include primes, factors, least common multiples, percents, and basic operations with fractions. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 062 Pre Business (1)

This course is designed to introduce students to business mathematics. Selected topics include discounts and commissions, interest, metric and English measuring systems, areas, and volumes. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 063 Pre Algebra (1)

This course is designed to introduce students to the language of algebra with such topics as integers, metrics, equations, and properties of counting numbers. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 064 Mathematics For Nursing I (1)

This course is designed to develop an understanding of the measurements and terminology in medicine and calculations involving conversions of applicable systems of measurement. It is designed primarily for students in all nursing programs. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 065 Mathematics For Nursing II (1)

Prerequisite: Developmental Mathematics 064. This course includes medical calculations used in problems dealing with solutions and dosages. It is designed primarily for students in the nursing programs. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 070 Elementary Algebra I (1)

Prerequisites: Developmental Mathematics 090, 063, or equivalent. This course is an introduction to algebra and includes selected topics such as basic principles and operations of sets, counting numbers, and integers. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 071 Elementary Algebra II (1)

Prerequisite: Developmental Mathematics 070 or equivalent. This course includes selected topics such as rational numbers, algebraic polynomials, factoring, and algebraic fractions. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 072 Elementary Algebra III (1)

Prerequisite: Developmental Mathematics 071 or equivalent. This course includes selected topics such as fractional and quadratic equations, quadratic equations with irrational solutions, and systems of equations involving two variables. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 073 Introduction To Geometry (1)

This course introduces principles of geometry. Axioms, theorems, axiom systems, models of such systems, and methods of proof are stressed. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 080 Intermediate Algebra I (1)

Prerequisites: Developmental Mathematics 071, 091 or equivalent. This course includes selected topics such as systems of rational numbers, real numbers, and complex numbers. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 081 Intermediate Algebra II (1)

Prerequisite: Developmental Mathematics 080 or equivalent. This course includes selected topics such as sets, relations, functions, inequalities, and absolute values. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

DM 082 Intermediate Algebra III (1)

Prerequisite: Developmental Mathematics 081 or equivalent. This course includes selected topics such as graphing, exponents, and factoring. (1 Lec.)

(Coordinating Board Academic Approval Number 3201045137)

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.)

(Coordinating Board Academic Approval Number 3201045137)

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.)

(Coordinating Board Academic Approval Number 3201045137)

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.)

(Coordinating Board Academic Approval Number 3201045137)

DEVELOPMENTAL READING

Students can improve their academic success by taking the appropriate reading courses. For an assessment of which course to begin with, talk with a reading faculty member or a counselor.

DR 090 Developmental Reading (3)

This course presents basic reading comprehension and vocabulary skills. Basic study skills are introduced. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085235)

DR 091 Developmental Reading (3)

This course continues the development of reading comprehension and vocabulary skills. Study skills are also included. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085235)

DR 093 Developmental Reading (3)

This course offers further development of reading comprehension, vocabulary, and study skills. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085235)

DEVELOPMENTAL WRITING

Students can improve their writing skills by taking Developmental Writing. These courses are offered for 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.)

(Coordinating Board Academic Approval Number 3201085335)

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.)

(Coordinating Board Academic Approval Number 3201085335)

DW 093 Developmental Writing (3)

This course refines student writing skills in inventing, drafting, revising, and editing multi-paragraph papers. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085335)

DIAGNOSTIC MEDICAL SONOGRAPHY**DMS 208 Cross Sectional Anatomy (3)**

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course focuses on a detailed study of the anatomy of the abdomen, including the anatomical relationships of organs such as the liver, gallbladder, spleen, vascular system, and pelvis, as it relates to an ultrasound examination. Laboratory fee. (3 Lec.)

DMS 210 Acoustical Physics (3)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Science courses. This course is designed to introduce the student to the study of acoustical physics, with the discussion of such topics as the interaction of ultrasound with tissues, mechanics of ultrasound production, various transducer design and construction, and principles of dopler devices. (3 Lec.)

DMS 216 Ultrasound Science I (2)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course discusses the history of sonography, related diagnostic research, and departmental procedures. Patient history and clinical findings relative to sonographic examination will be discussed. (2 Lec.)

DMS 217 Clinical Education I (3)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. The student will participate in supervised experiences in an affiliated hospital ultrasound department. (20 Lab.)

DMS 218 Clinical Medicine I (4)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. A detailed study of scanning techniques, transducers, normal and abnormal abdominal anatomy, patient history and laboratory data, as it relates to sonographic examination are the focus of this course. (4 Lec.)

DMS 222 Pathophysiology (3)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course presents a study of the pathology and pathophysiology of abdominal structures visualized with ultrasound examination, including urinary and reproductive systems, breast and thyroid. Correlations will be made between sonographic examination and disease processes of these organs. (3 Lec.)

DMS 225 Clinical Medicine II (4)

Prerequisite: Minimum grade of "C" or better in all previous courses. This is a continuation of Clinical Medicine I with emphasis on the male and female pelvis, and obstetrics. (4 Lec.)

DMS 227 Instrumentation/Standardization (2)

Prerequisite: Minimum grade of "C" or better in all previous courses. This course focuses on the components and functions of the scanner, display systems, scan converter, and hard copy units of sonographic examination. Discussion will include a comparison of various real time units, B scan units. Operations and calibration of an ultrasound unit will also be discussed. (2 Lec.)

DMS 229 Clinical Education II (4)

Prerequisite: Minimum grade of "C" or better in all previous courses. This is a continuation of Clinical Education I. Students will be assigned to affiliated hospital ultrasound departments. (24 Lab.)

DMS 237 Clinical Medicine III (1)

Prerequisite: Minimum grade of "C" or better in all previous courses. This course is a continuation of Clinical Medicine II, with emphasis on the neonatal head. (3 Lec.)

DMS 242 Clinical Medicine IV (1)

Prerequisite: Minimum grade of "C" or better in all previous courses. This course is a continuation of Clinical Medicine III with emphasis placed on review of adult abdominal organ systems. (3 Lec.)

DMS 252 Clinical Education III (2)

Prerequisite: Minimum grade of "C" or better in all previous courses. This course is a continuation of Clinical Education II. Students will be assigned to affiliated hospital ultrasound departments. (32 Lab.)

DMS 253 Clinical Education IV (2)

Prerequisite: Minimum grade of "C" or better in all previous courses. This course is a continuation of Clinical Education III. Students will be assigned to affiliated hospital ultrasound departments. (32 Lab.)

EARTH SCIENCE

ES 117 Earth Science (4)

(Common Course Number GEOL 1401)

This course is for the non-science major. It covers the interaction of the earth sciences and the physical world. Geology, astronomy, meteorology, and space science are included. Selected principles and concepts of the applied sciences are explored. This course is also offered as Physical Science 119. Laboratory fee. (3 Lec., 3 Lab.)
(Coordinating Board Academic Approval Number 4001015139)

ECOLOGY

ECY 291 People And Their Environment (3)

(Common Course Number GEOL 1305)

Environmental awareness and knowledge are emphasized. Topics include pollution, erosion, land use, energy resource depletion, overpopulation, and the effects of unguided technological development. Proper planning of societal and individual action in order to protect the natural environment is stressed. (3 Lec.)

(Coordinating Board Academic Approval Number 0301025339)

ECONOMICS

ECO 105 Economics Of Contemporary Social Issues (3)

(Common Course Number ECON 1303)

This course is a study of the economics of current social issues and public policy, including such matters as anti-trust policy, business deregulation, social security, wage and price controls, budget deficits, economic growth, medical care, nuclear power, farm policy, labor unions, foreign trade, and economic stabilization. This course is a credit course that can serve as a transfer elective and/or introductory course for the Principles sequence (Economics 201 or 202). This course, however, will not replace either Economics 201 or 202 where these courses are required in a university transfer curriculum. (3 Lec.)

(Coordinating Board Academic Approval Number 1904025242)

ECO 201 Principles Of Economics I (3)

(Common Course Number ECON 2301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4506015142)

ECO 202 Principles Of Economics II (3)

(Common Course Number ECON 2302)

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.)

(Coordinating Board Academic Approval Number 4506015142)

ECO 203 Economics of Global Issues (3)

(Common Course Number ECON 2311)

Prerequisite: ECO 201 or demonstrated competence approved by the instructor. This course is an analytical study of global economic relationships with historical development of various production and distribution activities. The interaction of social and political factors as well as physical and monetary resources in determining the location, and relocation, of particular economic activities will be investigated. This course will emphasize critical inquiry into the major issues currently affecting the global economy at large as well as the diverse individual cultures within its spread. (3 Lec.)

(Coordinating Board Academic Approval Number 4507015242)

EDUCATIONAL PERSONNEL

EP 129 Language Skills For Educational Personnel (3)

This course surveys methods for developing the language skills of students. Topics include creative writing, story telling, appreciation of literature, tutoring, cursive and manuscript handwriting, and listening skills. (3 Lec.)

EP 131 Introduction To Educational Processes I (3)

The role of educational support personnel is defined within the framework of contemporary public school organization. Legal guidelines and procedures of local, state, and federal agencies governing public education are described. Special attention is given to the development of effective interpersonal relationships with emphasis on application to the public school setting. (3 Lec.)

EP 133 Introduction To Educational Processes II (3)

This course focuses on developing a wholesome learning environment in the classroom. The facilitation of learning in small groups is emphasized. Factors affecting the growth and development of students in a pluralistic society are covered. The responsibilities of educational personnel are covered. (3 Lec.)

EP 134 Introduction To Media (3)

Basic skills for preparing graphic and projected educational materials are developed. The operation of selected audiovisual equipment is also included. (2 Lec., 2 Lab.)

EP 135 Arts And Crafts (3)

Creative art materials and methods used in programs for children are presented. Opportunities are provided for the use of these materials. Classroom displays, charts, poster art, and bulletin boards are included, emphasis is on creating an attractive environment in the classroom. (3 Lec.)

EP 136 Principles And Practices Of Multi-Cultural Communications (3)

This course examines cultural variations found in our society and reflected in our pluralistic classrooms. Students will look at their own culturally influenced behavior, study other major cultures, and develop an awareness of cultural diversity and the process of intercultural communication. Differences in lifestyles, communication styles, learning processes, educational philosophies, interpersonal relations, and sources of stress for various cultural groups will be explored in a seminar-type environment. (3 Lec.)

EP 140 Child Language Development (3)

This course will cover information on language development for the bilingual and monolingual student with emphasis on cross-cultural awareness and second language acquisition. The role of oral language development will be studied with regard to its application for both ESL and bilingual methods and techniques. (3 Lec.)

EP 143 Bilingual Education: Philosophy, Techniques And Materials (3)

This course presents the core techniques in bilingual education. Topics included are: awareness of cultural backgrounds, teaching techniques, material development, historical and philosophical concepts of bilingual/bicultural education, and Spanish technical vocabulary in the content areas. (3 Lec.)

EP 210 Computer Instruction For Educators (3)

This course is an introduction to microcomputer use for educators. Topics include history, terminology, classroom applications, instructional software preview, introductory programming, and productivity software. Hands-on computer activities are emphasized throughout the course. (2 Lec., 2 Lab.)

EP 241 Techniques For Teaching English To Non-Native Speakers (3)

This course is a practical application of second language learning theory as it relates to the non-English speaking student. The process, contents and management of second language teaching will be discussed, demonstrated and practiced. (3 Lec.)

EP 245 Diversified Studies (1)

This course provides for specialized study by educational personnel. Possible areas for study are special education, bilingualism, child development, educational media, library, physical education, counseling, and health services. Other areas may be approved by the instructor. This course may be repeated for credit, when the topics vary, up to a maximum of three credit hours. (1 Lec.)

EP 246 Diversified Studies (2)

This course provides for specialized study by educational personnel. Possible areas for study are special education, bilingualism, child development, educational media, library, physical education, counseling, and health services. Other areas may be approved by the instructor. Other areas may be repeated for credit, when the topics vary, up to a maximum of four credit hours. (2 Lec.)

EP 247 Diversified Studies (3)

This course provides for specialized study by educational personnel. Possible areas for study are special education, bilingualism, child development, educational media, library, physical education, counseling, and health services. Other areas may be approved by the instructor. Other areas may be repeated for credit, when the topics vary, up to a maximum of six credit hours. (3 Lec.)

EP 249 The Exceptional Child (3)

This course is designed as a comprehensive survey of the field of exceptionality with emphasis on the educational, sociological, and psychological effects of handicapping condition on children. (3 Lec.)

EP 702 Cooperative Work Experience (2)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as writing competency-based learning objectives, job-related problem solving, improving one's chances for advancement, interpersonal communication skills, contemporary issues in education and other topics as appropriate for particular educational groups or individuals. (1 Lec., 10 Lab.)

EP 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as writing competency-based learning objectives, job-related problem solving, improving one's chances for advancement, interpersonal communication skills, contemporary issues in education and other topics as appropriate for particular educational groups or individuals. (1 Lec., 15 Lab.)

EP 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as writing competency-based learning objectives, job-related problem solving, improving one's chances for advancement, interpersonal communication skills, contemporary issues in education and other topics as appropriate for particular educational groups or individuals. (1 Lec., 20 Lab.)

EP 712 Cooperative Work Experience (2)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as employee interviewing skills, strategies for career upward mobility, effective resume writing and interpersonal communication skills. (1 Lec., 10 Lab.)

EP 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as employee interviewing skills, strategies for career upward mobility, effective resume writing and interpersonal communication skills. (1 Lec., 15 Lab.)

EP 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Educational Personnel program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of 16 hours of group and individual learning experiences related to such topics as employee interviewing skills, strategies for career upward mobility, effective resume writing and interpersonal communication skills. (1 Lec., 20 Lab.)

ELECTRIC POWER TECHNOLOGY

ELP 244 Advanced Electric Power Systems (4)

Prerequisite: Electro-Mechanical Technology 233. Power distribution systems are studied. Generating equipment, transmission lines, plant distribution, and protective devices are included. The laboratory provides hands-on experience in the operation and testing of the various types of generation and power distribution equipment. Laboratory fee. (3 Lec., 3 Lab.)

ELECTRICAL TECHNOLOGY

ELE 105 Introduction Of Electrical Technology (2)

This course focuses on the nature of the electrical technology industry and employment opportunities. Safety, materials, and the proper use of tools and common test devices are covered. Laboratory fee. (2 Lec., 1 Lab.)

ELE 106 Fundamentals Of Electricity (4)

Electrical theory and basic DC and AC circuits are covered. Voltage, current, resistance, reactance, impedance, phase angle, and power factors are calculated and measured in series, parallel and combination circuits. Laboratory fee. (3 Lec., 3 Lab.)

ELE 107 Electrical Transformers (4)

This course focuses on the fundamentals, types and testing procedures of electrical transformers. Power generation, transmission, and distribution systems are presented utilizing both single-phase and three-phase transformers. Laboratory fee. (4 Lec., 2 Lab.)

ELE 108 General Electrical Codes (2)

General Electrical Codes as identified in the current National Electric Code are presented. General codes concepts and residential applications are stressed. (2 Lec.)

ELE 115 Low Voltage Circuits (3)

This course focuses on types of low voltage electrical circuits. The theory, installation, and testing of low voltage circuits such as bells, chimes, and alarm systems will be presented. Laboratory fee. (2 Lec., 2 Lab.)

ELE 116 General Electrical Wiring (3)

This course covers general wiring practices with emphasis on safety and procedures. Topics include materials selection, splicing, switches, receptacles, and lighting circuits for both residential and selected commercial applications. Laboratory fee. (2 Lec., 4 Lab.)

ELE 117 General Electrical Planning (4)

This course presents service, feeders, and branch circuit load calculations. Student activities include calculating appliance loads and circuit locations using blueprints, construction drawings and specifications. Laboratory fee. (4 Lec., 2 Lab.)

ELE 118 Commercial Codes (2)

This course is an extension of the Basic Electrical Codes to applications frequently encountered in commercial electrical wiring. Information presented is based upon the current National Electrical Code. (2 Lec.)

ELE 205 Commercial Wiring (3)

Topics in this course are centered on accepted procedures and practice in wiring for commercial applications. Materials, conduit, and circuit layouts are included. Laboratory fee. (2 Lec., 4 Lab.)

ELE 206 Commercial Planning (4)

This course stresses applications for service, feeders, and branch circuits for commercial loads. Topics covered include blueprint reading, load calculations, overload protection, and planning for selected commercial environments. Laboratory fee. (4 Lec., 2 Lab.)

ELE 207 Industrial Planning (2)

This course covers power applications for industrial locations. Topics include high voltage wiring, feeder bus systems, switching, and system protection. Laboratory fee. (2 Lec., 1 Lab.)

ELE 208 Industrial Codes (2)

This course presents those areas of the current National Electric Code dealing with transformer and welder feeder circuits, motor and branch circuit overload protection. (2 Lec.)

ELE 213 Electrical Motor Fundamentals (2)

Theory and fundamentals of AC, DC, and three-phase electrical motors are presented. Emphasis is placed on the characteristics, connection, and testing of these machines. Laboratory fee. (2 Lec., 1 Lab.)

ELE 214 Solid State Controls (3)

Solid state digital logic concepts and applications for motor controls are presented. System diagnostic procedures are covered. Laboratory fee. (2 Lec., 2 Lab.)

ELE 216 Motor Controls (3)

This course focuses on the connection and testing of electrical systems used to control single and multiple motor operations. Topics included are control circuit diagrams, magnetic starting, overload protecting, jogging, reversing, and sequencing. Laboratory fee. (3 Lec., 2 Lab.)

ELE 218 Electrical Design (3)

This course presents topics pertaining to designing and planning residential and commercial projects. Topics include construction drawings, specifications, load calculations, electrical layout and schedules, materials selection, and cost estimating. Activities are centered on major student projects. Laboratory fee. (2 Lec., 4 Lab.)

ELE 220 Contemporary Topics In Electrical Technology (1)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (1 Lec.)

ELE 222 Contemporary Topics In Electrical Technology (1)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. Laboratory fee. (1 Lec., 1 Lab.)

ELE 224 Contemporary Topics In Electrical Technology (3)

Prerequisite: Will vary based on topics covered and will be annotated in each semester's schedule. Recent developments and topics of current interest are studied. May be repeated when topics vary. (3 Lec.)

ELE 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Electrical Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 15 Lab.)

ELE 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electrical Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, and employer expectations of employees. (1 Lec., 20 Lab.)

ELE 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Electrical Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 15 Lab.)

ELE 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electrical Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, changing jobs, supervising subordinates, and building self-esteem. (1 Lec., 20 Lab.)

ELECTRONIC COMPUTER-AIDED TECHNOLOGY**ECT 143 Technical Programming (4)**

Prerequisite: Mathematics 195 or demonstrated competence approved by the instructor. This course introduces the student to computer-aided analysis. Skills are developed in using computers to solve technology problems. Basic computer programming techniques are introduced in the microcomputer laboratory using high level languages such as BASIC or C. Laboratory fee. (3 Lec., 3 Lab.)

ECT 144 Computer-Aided Instrumentation And Testing (4)

Prerequisite: Credit or concurrent enrollment in Electronics Technology 191. Industrial instrumentation and testing are introduced. Both analog and digital measuring systems are studied. Included are characteristics of basic AC and DC meters, digital meters, impedance bridges, oscilloscopes, and electronic counters. Analog-to-digital, computer-controlled, and digital-to-analog measuring systems are introduced. Computer-aided instructional materials and analysis techniques are utilized. Laboratory fee. (3 Lec., 3 Lab.)

ECT 228 Operational Amplifiers (4)

Prerequisites: Electronics Technology 193 or the equivalent. This course introduces analog circuits that sense, amplify, and condition signals using operational amplifiers and other linear integrated circuits for applications involving instrumentation, signal generation, filter, and control circuits. The laboratory emphasis is on the application and characteristics of these circuits. Computer-aided analysis of Op Amps is covered using computer-aided instructional materials and analysis programs. Laboratory fee. (3 Lec., 3 Lab.)

ECT 230 Digital Machine Control (4)

Prerequisite: Electronics Technology 191. This course emphasizes electromechanical controls, solid state industrial controls, and programmable logic controllers. Control components, control and power circuit diagrams, manual controllers, automatic controllers, and computerized control systems are studied. Computer-aided instructional materials and analysis techniques are utilized. Laboratory fee. (3 Lec., 3 Lab.)

ECT 239 Principles of Microcomputer Control (4)

Prerequisite: Electronic Computer-Aided Technology 242 or the equivalent. This course covers the basic hardware components (CPU and memory) of a typical microcomputer and the software required for control. A complete instruction set is taught in assembly and machine language. The laboratory work allows the student to write and run programs in machine language. This study identifies the basic machine cycles involved in the fetch, decode, and execute operations for each instruction in the instruction set. Laboratory fee. (3 Lec., 3 Lab.)

ECT 242 Digital Computer Circuits (4)

Prerequisite: Electronics Technology 193 or the equivalent. This course introduces number systems and logic functions used in computer systems. Alphanumeric and interchange codes are included. Binary arithmetic, including octal and hexadecimal, 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 devices are included. A circuit-modeling program is introduced and used to allow computer-aided analysis of the logic circuits. The laboratory work allows us to operate these circuits and study their performance. Laboratory fee. (3 Lec., 3 Lab.)

ECT 268 Microcomputer Interfacing (4)

Prerequisite: Electronics Computer-Aided Technology 239 or the equivalent. This course is a study of microcomputer data interface hardware and software specifications and standards that are used in the industry. Commonly used specifications and standards such as RS-232-C, RS-423-A, RS-422-A, RS-485, IEEE 488, ANSI X3.131 SCSI, MIL-188C are discussed. Basic driver/receiver modes, backplane interfaces, types of transmission lines and line terminations and reflections are covered. Laboratory fee. (3 Lec., 3 Lab.)

ECT 290 Special Topics In Electronic Computer-Aided Technology (3)

Prerequisite: Depends on topic studied. Topics will vary based on need and will be included in each semester's class schedule. Current developments in the rapidly changing field of computer-aided electronics will be studied. (3 Lec., 3 Lab.)

ECT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electronic Computer-Aided Technology program or instructor approval. This course combines productive work experience with academic study. The students, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. The seminar consists of discussions on the writing of effective competency-based learning objectives and other work related skills such as time management, resume writing, and human relations. (1 Lec., 20 Lab.)

ELECTRONICS TECHNOLOGY

ET 135 DC-AC Theory And Circuit Analysis (6)

Prerequisite: 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 trouble-shooting 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)

Prerequisites: Electronics Technology 190 and credit or concurrent enrollment in Mathematics 195 or the equivalent. This course covers the fundamental theories of alternating current. The theories are applied in various circuits. Included are laboratory experiments on power factor, sine wave analysis, resonant circuits, 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 nonlinear 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 197 Digital Logic Principles (4)

This course is a study of number systems and arithmetic in various bases. Included are truth tables, logic symbols, and basic logic functions including NOT, AND, NAND, OR, NOR, and XOR. Logic manipulations involving basic laws, minterm forms, mapping, minimization, and basic logic gate circuit troubleshooting techniques. An introduction to computer operations and systems with emphasis on the use of the computer as an analytical tool for electronics circuit evaluation is included. Laboratory fee. (3 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 201 Automated Manufacturing (4)

This course provides an introduction to automated manufacturing and robotics. Areas of study include the types of equipment and devices used in industry, their construction, operation, programming methods and applications for use in manufacturing. The student develops skills in system operation and program analysis in the lab. Laboratory fee. (3 Lec., 3 Lab.)

ET 202 Industrial Power Systems (4)

This course examines predominant power systems used in industrial applications. Topics covered include electric motors and their control circuits, mechanical devices and systems, and fluid power principles and systems, including pneumatic and hydraulic operations. Fundamental theory of operation, control and application are studied in each of these areas as well as developing skills and techniques of use with hands-on experience. Laboratory fee. (3 Lec., 3 Lab.)

ET 203 Industrial Controls (4)

Prerequisite: Electronics Technology 193. This course examines the devices and systems used in industrial controls. Topics covered include electromechanical devices, various types of transducers, signal conditioning, modulation and demodulation methods, and interfacing and data communications techniques. The student gains operational experience working with the devices and equipment in the lab. Laboratory fee. (3 Lec., 3 Lab.)

ET 210 Basic CRT Display And Television Theory and Service (4)

Prerequisite: 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 Electronic 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 systems 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 electronic project are covered. Students develop independent project and prepare term papers on functions of components, operating specifications and schematics. Laboratory fee. (6 Lab.)

ET 235 Fundamentals Of Electricity (4)

This course is an introduction to electricity for student in related programs. Topics include basic AC and DC theory, voltage, current, and resistance, and electrical wiring principles and schematics. Transformers, relays, timers, electrical measuring devices, and basic electrical calculations are also included. Laboratory fee. (3 Lec., 3 Lab.)

ET 237 Modular Memories And Microprocessors (4)

Prerequisite: 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 buses, addressing, coding, and programming of typical microprocessor units are included. Micro processor system is 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 Electronic Theory And Application Of Digital Computers (4)

Prerequisites: Electronics Technology 190. 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.)

ET 246 Microcomputer Theory And System Maintenance (4)

Prerequisite: Electronics Technology 193 or demonstrated competence approved by the instructor. This course is an introduction to the theory and operation of microcomputers. The theory and operation of the individual components that comprise a microcomputer are studied as well as the methods by which the components are connected together to form a complete microcomputer. Software and hardware troubleshooting techniques are also emphasized. (3 Lec., 3 Lab.)

ET 247 Microcomputer Peripheral Devices (4)

Prerequisites: Credit or concurrent enrollment in Electronics Technology 241 or demonstrated competence approved by the instructor. Topics include theory and maintenance of microcomputer peripheral devices such as printers, plotters, disk drives, mice, scanners, and digitizers. Hard disk organization, formatting, and maintenance are also emphasized. (3 Lec., 3 Lab.)

ET 248 Digital Data Communications (4)

Prerequisite: Credit or concurrent enrollment in Electronics 242 or demonstrated competence approved by the instructor. This course is an introduction to digital data communications with an emphasis on asynchronus data communications and microcomputer local area networks. Telephone switching systems are studied as well as techniques for the installation and maintenance of modems and local area networks. (3 Lec., 3 Lab.)

ET 250 Principles Of Electronic Integrated Circuits (4)

Prerequisites: Electronics Technology 190 and concurrent enrollment in Computer Aided Design 241. This is a survey course of solid state devices and their associated circuitry. This course is intended to teach the student fundamentals of common electronic circuits which contain integrated circuits and to teach elements of solid state devices from the principle of the PN junction through the function of integrated circuits. Laboratory fee. (3 Lec., 2 Lab.)

ET 260 Sinusoidal Circuits (4)

Prerequisites: Electronics Technology 191 and 193. Power supply circuits are presented. Included are full wave rectification, filtering, and regulation. Amplifier circuits involving large and small signal analysis, coupling, classes of operation and feedback techniques are also covered. Semiconductor devices considered include the Zener diode, SCR, TRIAC, MOSFET, JFET, CMOS, and unijunction transistors. Laboratory fee. (3 Lec., 3 Lab.)

ET 261 Pulse And Switching Circuits (4)

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

ET 263 Digital Computer Theory (4)

Prerequisite: Electronics Technology 191, 192, and 193. This course focuses on basic computer circuits. Included are flip-flops, shift registers, counters (sequential and nonsequential), operational amplifiers, and A to D converters. Analysis of specific current integrated circuits is also included. Laboratory fee. (3 Lec., 3 Lab.)

ET 264 Digital Systems (4)

Prerequisites: Electronics Technology 192 and 263 or concurrent enrollment in Electronics Technology 263. The three major component systems of a digital computer are studied. The arithmetic-logic section covers arithmetic in binary, hexadecimal, counting, and number representation within a machine. The memory studies center around the operation of core and semiconductor memory assemblies which include addressing and data buffering. The control section deals with state, distributive, and ROM type of control circuits. Laboratory fee. (3 Lec., 3 Lab.)

ET 265 Digital Research (3)

Prerequisites: Electronics Technology 192 and concurrent enrollment in Electronics Technology 263 or 264. The design, layout, construction, and calibrating of a major electronic project are covered. The project uses digital circuits. Students develop independent projects and prepare term papers on functions of components, operating specifications, and schematics. Laboratory fee. (1 Lec., 5 Lab.)

ET 266 Computer Applications (4)

Prerequisite: Electronics Technology 192. Machine language and assembly language programming are the focus of this course. Emphasis is on problem solving for in-house computers. Laboratory fee. (3 Lec., 3 Lab.)

ET 267 Microprocessors (4)

Prerequisites: Electronics Technology 192 and 266. This course is a study of microcomputers. Topics include architecture, software, interfacing, microprocessors, and microcomputer systems. Emphasis is on practical applications using in-house microcomputers. Laboratory fee. (3 Lec., 3 Lab.)

ET 268 Microprocessor Trouble-shooting And Interface (4)

Prerequisite: Electronic Technology 267. This course studies trouble-shooting techniques on microprocessor, disk controls, CRT controls and interfaces. Emphasis is on hardware trouble-shooting and peripheral interface. Laboratory fee. (3 Lec., 3 Lab.)

ET 270 Computer-Aided Circuit Analysis and Design (4)

This course utilizes the personal computer platform as a tool to enable the user to draw schematics, build net lists, compile and generate selected reports. The student will learn to use the PC to analyze, design, and layout the printed circuit board for passive and active circuit systems. Several software packages are employed to achieve the desired competencies. (3 Lec., 3 Lab.)

ET 271 UNIX Tools For Circuit Analysis (4)

Prerequisite: Electronics Technology 270. This course utilizes the personal computer to enable the student to develop skills in circuit design using the UNIX operating system. The students will enter schematics, simulate, and perform circuit board layouts to specifications. (3 Lec., 3 Lab.)

ET 272 Introduction To Computer Aided Testing (4)

Prerequisite: Basic skills in computer operations and knowledge of stand alone electronics instruments. This course centers around the use of computer applications programs specifically designed for use in building computer aided testing (CAT) scenarios. This will use a windows-type environment. GBIP or virtual instrumentation type systems will be discussed and implemented. All students will gain experience with transferring data to and from the instruments via computer. (3 Lec., 3 Lab.)

ET 273 Advanced Computer Aided Testing (4)

Prerequisite: Electronics Technology 272. In this course the student will write and conduct test procedures on various circuits to be conducted under computer control. This course will focus on the following techniques: lab windows, high speed bus, virtual instruments or other modern methods as they are developed. (3 Lec., 3 Lab.)

ET 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electronics Technology, Digital Electronics Technology, or Electronic Telecommunications Technology programs, or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences related to the electronics field. The seminar consists of group or individual meetings with the instructor, individualized plans for job-related or self improvement (i.e. job interview, job application procedures, job site interpersonal relations, employer expectations of employees) or combinations of both. (1 Lec., 20 Lab.)

ET 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electronics Technology, Digital Electronics Technology, or Electronic Telecommunications Technology programs, or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences related to the electronics field. The seminar consists of group or individual meetings with the instructor, individualized plans for job-related or self improvement (i.e. preparation of resumes, changing jobs, supervising subordinates, building self-esteem), or combinations of both. (1 Lec., 20 Lab.)

ELECTRONIC TELECOMMUNICATIONS

ET 102 Introduction To Telecommunications (3)

This course is an introduction to the fundamentals of telecommunications with an emphasis on analog and digital voice transmission techniques and technology. Telecommunications majors are required to take the laboratory course Electronics Technology 103. (3 Lec.)

ET 103 Introduction To Telecommunications Laboratory (1)

Prerequisites: Electronics Technology 190, 191 and concurrent enrollment in Electronics Technology 102. This course is designed to support the theories taught in Electronics Technology 102 with laboratory experiments. Laboratory fee. (3 Lab.)

ET 290 Advanced Electronic Devices (4)

Prerequisites: Electronics Technology 102, 103 and 193. This course continues the study of solid state devices and circuit theory. Emphasis will be on application of these devices in circuitry relevant to the telecommunications systems: power supplies, regulators, amplifiers and oscillators. Laboratory fee. (3 Lec., 3 Lab.)

ET 291 Linear Integrated Circuit Applications (4)

Prerequisite: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. A study of operational amplifiers and their use as basic building blocks of linear integrated circuitry. Topics will include voltage level detectors, comparators, signal generating circuits, signal processing circuits, inverting and non-inverting amplifiers, differential, instrumentation and bridge amplifiers, active filters, IC. timers, and selected linear integrated circuits. Laboratory fee. (3 Lec., 3 Lab.)

ET 292 Telephony Switching Systems (4)

Prerequisite: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. This course will familiarize the student with the following topics: telephone set, public switched networks, local exchanges, networks, two and four wire systems, tip and ringing requirements, and an introduction to digital transmission techniques. Laboratory fee. (3 Lec., 3 Lab.)

ET 293 Basic Radio Circuitry (4)

Prerequisite: Electronics Technology 290 or concurrent enrollment in Electronics Technology 290. This course covers the theory and practices of modern communications systems. Topics include amplitude modulation, frequency modulation, single side band techniques and digital radio characteristics. Laboratory fee. (3 Lec., 3 Lab.)

ET 294 High Frequency Transmission Systems (4)

Prerequisites: Electronics Technology 291, 292, and 293. The theory and application of long-haul transmission techniques utilized in the telecommunication industry will be covered. Microwave transmission, fiber optics principles, and satellite communication are major areas of emphasis. Laboratory fee. (3 Lec., 3 Lab.)

ET 295 Telecommunication Signaling (4)

Prerequisite: Electronics Technology 294 or concurrent enrollment in Electronics Technology 294. This course covers circuit and system application necessary to implement signaling protocols, conversion systems, formats, and loop starts. Specific signaling topics are SF (single frequency) E & M, DX (duplex), and looping systems. Laboratory fee. (3 Lec., 3 Lab.)

ET 297 System Installation And Testing (4)

Prerequisite: Electronics Technology 295 or concurrent enrollment in Electronics Technology 294 or Electronics Technology 295. This course is designed to make the student familiar with the installation of telecommunications switching equipment. The student will become familiar with the theory, operation, and maintenance of switching equipment along with trouble-shooting techniques. Laboratory fee. (3 Lec., 3 Lab.)

ET 298 Electro-Optics Systems (4)

Prerequisite: Electronics Technology 193 and Electronics Technology 263 (recommended). This course is the study of components, circuits and systems that combine electronic technology with optics. Topics include basic optical principles, electro-optic sources, fiber optic links, optical receivers, integrated optics, and system interconnection. Laboratory fee. (3 Lec., 3 Lab.)

ET 299 Cellular Telephone Radio Equipment/Systems (4)

Prerequisite: Electronics Telecommunications 293. This course covers the theory and practices of modern cellular telephone radio equipment/systems, including routine testing and maintenance of the systems. The course will familiarize the student with the cellular concept, radio equipment used in cellular telephone systems, basic call processing, handoff and handover processing, and common test/maintenance equipment used in cellular systems. (3 Lec., 3 Lab.)

ET 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electronic Telecommunications or Digital Electronics Technology programs or instructor approval. This introductory course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of an introduction to co-op, orientation to on-the-job learning, writing the learning plan and college degree plan. (1 Lec., 20 Lab.)

ET 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Electronic Telecommunications or Digital Electronics Technology programs or instructor approval. This advanced course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of self-inventory, work values, selling yourself and hints to keep a job. (1 Lec., 20 Lab)

ENGINEERING

EGR 101 Engineering Analysis (2)

(Common Course Number ENGR 1201)

Prerequisite: Two years of high school algebra or Developmental Mathematics 093 or demonstrated competence approved by the instructor. A mathematical scheme of analysis appropriate in engineering design is presented. Topics include natural quantities, vectors, Newton's laws, work, energy, first law of thermodynamics, information, dimensional analysis, physical modeling, compatibility, continuity, and interpretation of analytic results. Computer programming is taught and used in processing information for analysis. (2 Lec.)

(Coordinating Board Academic Approval Number 1401015129)

EGR 105 Engineering Design Graphics (3)

(Common Course Number ENGR 1304)

Prerequisite: Engineering 101 or Mathematics 102 or 196 or demonstrated competence approved by the instructor. Graphic fundamentals are presented for engineering communications and engineering design. A rational engineering design procedure is taught and computer aided design is introduced. Graphical topics include geometric construction, geometric modeling, orthographic drawing system, auxiliaries, sections, dimensions and tolerances, graphical analysis, pictorial and working drawings. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801015129)

EGR 106 Descriptive Geometry (3)

(Common Course Number ENGR 1305)

Prerequisite: Computer Aided Design 183 or Engineering 105. This course provides instruction in the visualization of three dimensional structures and computer transformations of geometric models. 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, development, auxiliaries, and revolutions. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 4801015129)

EGR 107 Engineering Mechanics I (3)

(Common Course Number ENGR 2301)

Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is a study of the statics of particles and rigid bodies with vector mathematics in three dimensional space. Topics include the equilibrium of forces and force systems, resultants, free body diagrams, friction, centroids and moments of inertia, virtual works, and potential energy. Distributed forces, centers of gravity, and analysis of structures, beams, and cables are also presented. (3 Lec.)

(Coordinating Board Academic Approval Number 1411015229)

EGR 201 Engineering Mechanics II (3)

(Common Course Number ENGR 2302)

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. This is a study of dynamics. Particles and rigid bodies are examined as they interact with applied forces. Both constrained and general motions are included. Space, time, mass, velocity, acceleration, work and energy, impulse, and momentum are covered. (3 Lec.)

(Coordinating Board Academic Approval Number 1411015329)

EGR 202 Engineering Mechanics Of Materials (3)

(Common Course Number ENGR 2332)

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 225. Simple structural elements are studied. Forces, deformation, material properties, the concepts of stress, strain, and elastic properties are presented. Analysis of thin walled vessels, members loaded in tension, torsion, bending and shear, combined loadings, and stability conditions are included. Behavioral phenomena such as fracture, fatigue, and creep are introduced. (3 Lec.)

(Coordinating Board Academic Approval Number 1411015129)

EGR 204 Electrical Systems Analysis (3)

(Common Course Number ENGR 2305)

Prerequisite: Credit or concurrent enrollment in Mathematics 225. Electrical science is introduced. Included are fundamental electrical systems and signals. Basic concepts of electricity and magnetism with mathematical representation and computation are also covered. (3 Lec.)

(Coordinating Board Academic Approval Number 4008015339)

EGR 205 Plane Surveying (3)

(Common Course Number ENGR 1307)

Prerequisites: Mathematics 102 or 196 and Engineering 105 or Computer Aided Design 183. This course focuses on plane surveying. Topics include surveying instruments, basic measuring procedures, vertical and horizontal control, error analysis, and computations. Traverse, triangulation, route alignments, centerlines, profiles, mapping, route surveying, and land surveying are also included. Laboratory fee. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 1511025129)

EGR 206 Electrical Engineering Laboratory (1)

(Common Course Number ENGR 2105)

Prerequisite: Credit or concurrent enrollment in Engineering 204. Various instruments are studied and used. These include the cathode ray oscilloscope, ammeters, voltmeters, ohmmeters, power supplies, signal generators, and bridges. Basic network laws, steady state and transient responses, and diode characteristics and applications are demonstrated. Computer simulation is introduced. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 4008015439)

EGR 207 Computer Methods In Engineering (3)

Prerequisite: Credit or concurrent enrollment in Mathematics 124 and demonstrated ability to program in a computer language approved by the instructor. Fundamental methods of numerical analysis with computer programming applications are presented. Topics include computer programming, recursion formulas, successive approximations, error analysis, nonlinear equations, and systems of linear equations and matrix methods. Probabilistic models, interpolations, determination of parameters, numerical integration, and solution of ordinary differential equations are also covered. (3 Lec.)
(Coordinating Board Academic Approval Number 1102015127)

EGR 290 Mechanics Of Structures (2)

Refer to Construction Management & Technology section.

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)

(Common Course Number ENGL 1301)

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. (3 Lec.)
(Coordinating Board Academic Approval Number 2304015135)

ENG 102 Composition II (3)

(Common Course Number ENGL 1302)

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. (3 Lec.)
(Coordinating Board Academic Approval Number 2304015135)

English In The Sophomore Year

English 201, 202, 203, 204, 205, 206, 215, and 216 are independent units of three credit hours each. Any one of these courses will satisfy DCCCD degree requirements in sophomore English.

ENG 201 British Literature (3)

(Common Course Number ENGL 2322)

Prerequisite: English 102. This course includes significant works of British writers from the Old English Period through the 18th century. (3 Lec.)
(Coordinating Board Academic Approval Number 2308015135)

ENG 202 British Literature (3)

(Common Course Number ENGL 2323)

Prerequisite: English 102. This course includes significant works of British writers from the Romantic Period to the present. (3 Lec.)
(Coordinating Board Academic Approval Number 2308015135)

ENG 203 World Literature (3)

(Common Course Number ENGL 2332)

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.)
(Coordinating Board Academic Approval Number 2303015235)

ENG 204 World Literature (3)

(Common Course Number ENGL 2334)

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.)
(Coordinating Board Academic Approval Number 2303015235)

ENG 205 American Literature (3)

(Common Course Number ENGL 2327)

Prerequisite: English 102. This course includes significant works of American writers from the Colonial through the Romantic Period. (3 Lec.)
(Coordinating Board Academic Approval Number 2307015135)

ENG 206 American Literature (3)

(Common Course Number ENGL 2328)

Prerequisite: English 102. This course includes significant works of American writers from the Realistic Period to the present. (3 Lec.)
(Coordinating Board Academic Approval Number 2307015135)

ENG 209 Creative Writing (3)

(Common Course Number ENGL 2307)

Prerequisite: English 102. The writing of fiction is the focus of this course. Included are the short story, poetry, and short drama. (3 Lec.)
(Coordinating Board Academic Approval Number 2305015135)

ENG 210 Technical Writing (3)

(Common Course Number ENGL 2311)

Prerequisites: 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.)
(Coordinating Board Academic Approval Number 2311015135)

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.)
(Coordinating Board Academic Approval Number 2303015335)

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.)
(Coordinating Board Academic Approval Number 2303015335)

ENGLISH AS A SECOND LANGUAGE

The English As A Second Language ESL credit curriculum is designed to develop a student's pre-academic language proficiency in the areas of listening, speaking, reading, and writing. The plan of study consists of sixteen courses divided into four proficiency levels and four skill areas (Listening-Speaking, Reading, Writing, and Grammar). The credit curriculum is designed to interface both with other ESL programs and with developmental studies or college level programs on each campus. A student enters this program by taking an English placement test and then by being advised by a specially trained ESL academic advisor.

ESL 031-034 (Listening-Speaking)

These courses prepare students to communicate orally in both public and academic environments. Emphasis is placed on developing language functions, pronunciation, and listening skills, and improving social and intercultural communication skills. Activities range from one-on-one conversation and brief descriptions to formal oral presentations and debates.

ESL 041-044 (Reading)

These courses engage students in reading material from daily experience and prepare them for college reading tasks. Each course instructs students in reading skills, vocabulary development, critical thinking skills, and the use of resources.

ESL 051-054 (Writing)

These courses are designed to help students increase fluency and build confidence in writing. The courses focus on writing as a process. Through inventing, drafting, and revising, students write for specific audiences and purposes.

ESL 061-064 (Grammar)

These courses are designed to complement the ESL 051-054 writing series. They provide instruction and practice with discrete grammar points necessary for effective writing.

INGLES COMO SEGUNDO IDIOMA

El programa de credito academico de Ingles Como Segundo Idioma ESL esta disenado para desarrollar el dominio del idioma pre-academico del estudiante en las areas de escuchar, hablar, leer y escribir. El plan de estudio consiste en dieciseis cursos divididos en cuatro niveles de dominio y cuatro areas de habilidades (Escuchar/Hablar, Lectura, Escritura y Gramatica). El programa de credito academico esta disenado para complementar otros programas de ESL y con los estudios de desarrollo o programas de nivel universitario de cada campus. El estudiante comienza este programa al tomar un examen de clasificacion y despues de una entrevista individual con un asesor academico entrenado especialmente en ESL.

ESL 031-034 (Escuchar y Conversar)

Estos cursos preparan al alumno para comunicarse con confianza en situaciones sociales y academicas. Se desarrollan las varias funciones del lenguaje, se mejora la pronuncacion y comprension auditiva y se practica la comunicacion academica y transcultural. Las actividades didacticas incluyen describir lugares y objetos, proyectos en grupo, presentaciones orales y debates formales.

ESL 041-044 (Lectura)

Estos cursos permiten a los estudiantes el acceso a material de lectura de la vida diaria y los prepara para tareas de lectura academica. Cada curso instruye a los estudiantes en habilidades de lectura, desarrollo de vocabulario, pensar en forma critica y el uso de los varios recursos disponibles en la institucion.

ESL 051, ESL 052, ESL 053, ESL 054

Estos cursos estan disenados con el objeto de ayudar los alumnos a obtener fluidez y confianza en escritura. Los cursos se enfocan en el proceso de escritura. A traves de crear, planear y revisar, los estudiantes produzcan escritos para diferentes audiencias y con diversos propositos.

ESL 061, ESL 062, ESL 063, ESL 064

Estos cursos estan disenados para complementar la serie de Escritura 051-054. Dichos cursos proveen instruccion y ejercicios practicos, asi como puntos esenciales de gramatica necesarios para la efectiva comunicacion escrita.

ENGLISH AS A SECOND LANGUAGE

ESL 031 ESL Listening/Speaking (3)

This course focuses on developing basic social and pre-academic listening and speaking skills. It includes skills such as describing, giving directions, and learning to understand explanations. Conversation conventions will be practiced as well as non-verbal communication skills. (Pronunciation is introduced through the study of basic phonetic segments and intonation patterns.) This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085535)

ESL 032 ESL Listening/Speaking (3)

This course develops intermediate social and pre-academic listening and speaking skills through situational activities. Students will express ideas and opinions in small groups and learn to understand and react appropriately. Intercultural communication will be incorporated. (Pronunciation skills will be practiced through identifying phonetic correctness and applying concepts of stress and intonation.) This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085535)

ESL 033 ESL Speaking (3)

This course develops public/academic oral language skills through active participation in group projects and presentations. Rhetorical skills such as narration and description will be practiced, and improving cross-cultural communication skills will be emphasized. (Pronunciation skills, including stress and intonation, will be refined with focused effort on areas of need through monitoring of oral production.) This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085535)

ESL 034 ESL Academic Speaking (3)

This course stresses academic speaking skills. Students learn formal presentation techniques as they defend a point of view and participate in seminars, panels, and debates. Formal rhetorical skills such as cause/effect, process, and summary will be practiced. The course will emphasize the value of cultural diversity. (Pronunciation skills, including stress and intonation, will continue to be refined with focused effort on areas of need through monitoring of oral production.) This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085535)

ESL 041 ESL Reading (3)

This course focuses on language development through reading activities. It includes reading comprehension, vocabulary building, study skills techniques, and intercultural sharing. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085635)

ESL 042 ESL Reading (3)

This course continues language development through reading comprehension and vocabulary building. It introduces paragraph organization, idiom study, and adapting reading rate for different purposes. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085635)

ESL 043 ESL Reading (3)

This course includes specific reading comprehension skills, reading efficiency strategies, critical thinking skills, vocabulary expansion, and the use of campus resources such as labs and libraries. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085635)

ESL 044 ESL Reading (3)

This course is designed to build on skills taught in previous reading classes but with a more academic emphasis. Students are taught reading skills and critical thinking skills as they relate to academic topics and to literature. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085635)

ESL 051 ESL Writing (3)

This course stresses the creation of sentences and groups of sentences. It also introduces basic spelling rules and vocabulary development. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 052 ESL Writing (3)

This course introduces the development of controlled and guided paragraphs using a variety of organizational structures and stresses logic patterns of English. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 053 ESL Writing (3)

This course stresses the process of paragraph writing and the characteristics of effective paragraph structure. It also introduces modes of discourse such as description, cause-effect, and comparison-contrast. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 054 ESL Writing (3)

This course emphasizes modes of discourse in expository writing for academic purposes. Particular attention is given to improving unity, coherence, transition, and style as students progress to multi-paragraph compositions. Paraphrasing and summarizing are also introduced. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 061 ESL Grammar (3)

This course introduces the basic aspects of English grammar needed to write simple and compound sentences. It includes the study of basic verb tenses, parts of speech, subject-verb agreement, and question formation. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 062 ESL Grammar (3)

This course reviews basic elements of English grammar introduced in ESL 061 and introduces grammar points necessary for writing controlled paragraphs. It includes further study of verb tenses, parts of speech, and question formation and introduces two-word verbs, modals, gerunds, and infinitives. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 063 ESL Grammar (3)

This course reviews grammar points studied in ESL 061 and ESL 062 and introduces elements necessary for students to write effective one-paragraph essays. It continues the study of verb tenses, parts of speech, and modals and introduces adverb, adjective, and noun clauses. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

ESL 064 ESL Grammar (3)

This course reviews grammar points studied in ESL 061, ESL 062, and ESL 063 and analyzes complex elements of those points. In addition, it introduces passive voice and conditional sentences. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 3201085735)

FASHION MARKETING

(See MARKETING)

FIRE PROTECTION**FPT 131 Fundamentals Of Fire Protection (3)**

The history and philosophy of fire protection are studied. Statistics on fire losses are reviewed and agencies involved in fire protection are introduced. Other topics include legislative developments, career orientation, recruitment and training for fire departments, position classification and pay plans, and employee organizations. Current and future problems are also reviewed. (3 Lec.)

FPT 132 Fire Prevention (3)

Fire prevention administration is studied. Both principles and procedures are covered. Other topics include inspections, organization, public cooperation and image, recognition of fire hazards, insurance problems, and legal aspects. Local, state, and national codes on fire prevention are reviewed. Relationships between building inspection agencies and fire prevention organizations are described. Engineering is presented as a solution to fire hazards. (3 Lec.)

FPT 137 Hazardous Materials I (3)

Prerequisite: Chemistry 102. This course includes the study of the chemical characteristics and behavior of various materials related to storage, transportation, handling hazardous materials, i.e., inflammable liquids, combustible solids and gases. Emphasis is on emergency situations and methods of handling fire fighting and control. (3 Lec.)

FPT 140 Fire Fighting Tactics And Strategy (3)

This course examines the nature of fire and the process of determining requirements to fight a fire. The effective use of personnel and equipment are covered. Emphasis is on preplanning, study of conflagration problems, problem-solving, decision-making, and attack tactics and strategy. The use of mutual aid and large scale command problems are also included. (3 Lec.)

FPT 141 Fire Administration I (3)

This course focuses on personal skill building in goal setting, human relations and personal counseling. Topics included are written and oral communications, desirable instructor qualifications, and methods and techniques used in teaching and learning. The use of the five stage lesson plan and introduction to management theorists and principles are discussed. (3 Lec.)

FPT 146 Fire And Arson Investigation I (3)

This course covers a study of the detection of arson. Subjects included are investigation techniques, case histories, gathering and preserving of evidence. Selected discussions of laws, decisions and opinions; and kinds of arsonists are presented. (3 Lec.)

FPT 229 Building Construction (3)

Fundamental consideration and exploration of building construction and design with emphasis on fire resistance of building materials and assemblies are presented. Related data focuses on fire protection concerns, elements of structural collapse and failure during a fire are also included. (3 Lec.)

FPT 233 Fire Protection Systems (3)

This course examines fire protection systems. Included are the required standards for water supply, special hazards protection systems, automatic sprinklers, special extinguishing systems, automatic signaling and detection systems. (3 Lec.)

FPT 235 Fire Administration II (3)

Prerequisite: Fire Protection 135. This course focuses on the study of the five functions of management. This includes organizational effectiveness, management information systems, program analysis, public finance, public relations, labor relations, and measurement of productivity. Management of an EMS, fire prevention bureau, training division and suppression division are also included. (3 Lec.)

FPT 236 Legal Aspects Of Fire Protection (3)

This course focuses on legal rights and duties. Liability of the fire department is included. Other topics include civil and criminal law, the Texas and federal judicial structure, and cities' liability for acts of the fire department and fire prevention bureaus. (3 Lec.)

FPT 237 Hazardous Materials II (3)

Hazardous materials are studied. Included are the storage, handling, laws, standards, and fire fighting techniques associated with hazardous materials. The materials include chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket propellants and exotic fuel, and radioactive substances. The formation of toxic fumes and health hazards is also stressed. Ignition and combustion characteristics of gases, liquids, and solids are covered. Special attention is given to radiological instruments, human exposure to radiation, decontamination procedures, common uses of radioactive materials, and operational procedures. (3 Lec.)

FPT 238 Fire Safety Education (3)

This course includes the study of methods used in fire brigade organization and training for industrial occupancies, industrial safety demonstrations, extinguishment techniques, public relations, news media relations, and utilization of the five step planning process for public fire safety education. Fire demonstration kits, indicate of flame spread, flammable liquids, gases, explosions, home and industrial hazards, methods of teaching the sick or immobile patient supervisors evacuation and safety in hospitals and nursing homes are studied. How to teach children in kindergarten and elementary grades fire safety is explored. (3 Lec.)

FPT 240 Fire Insurance Fundamentals (3)

The relationships among fire defenses, fire losses, and insurance rates are studied. Basic insurance principles, fire loss experience, loss ratios, state regulations of fire insurance, key rate system, the I.S.O. grading schedule, and other topics are stressed. Also covered are the relationship of insurance to modern business, principles of property and casualty insurance contracts, and the corporate structure of insurance companies. (3 Lec.)

FPT 244 Industrial Fire Protection (3)

The history and growth of the Occupational Safety and Health Act of 1970 is studied. Topics include safety program organization, workmen's compensation insurance, human behavior and safety, industrial toxicology and chemical hazards. (3 Lec.)

FPT 245 Water Systems (3)

This course includes the study of water supply requirements and nozzle pressure, friction loss and other factors involved in calculating pump pressures. Topics include water distribution systems, water supply evaluation and testing, advanced hydraulics, field calculations, fire ground pump operations, and foam applications. (3 Lec.)

FPT 246 Fire And Arson Investigation II (3)

This course covers the evidence needed for investigation. Evidence including photography, sketching, diagramming and incident report, interviewing and interrogation, are presented. The District Attorney relationship, Grand Jury referral and direct filing, Grand Jury presentation, courtroom demeanor, and "expert" witness are also included. (3 Lec.)

FPT 247 Building Codes (3)

This course presents an in-depth study of the National Fire Protection Association's life safety code. An introduction to the other model codes and the fire codes as they relate to building design is included. (3 Lec.)

FOOD AND HOSPITALITY SERVICE

FHS 110 Principles Of Food And Beverage Administration (3)

This course is an introduction to the management of food and beverage facilities. Subjects to be covered are the serving of food and beverages, classification of foods and spirits and their presentation. The marketing of food and beverage is stressed. (3 Lec.)

FHS 111 Dining Room Service Management (3)

This course provides students with practical skills and knowledge for effective management of food and beverage service in restaurants, cafeterias, coffee shops, room service, banquet areas, and dining rooms. Presents basic service principles while emphasizing the special needs of guests. (3 Lec.)

FHS 112 Organization And Management (3)

The organizational structure of various types of group care institutions is studied. Administration, tools of management, budget, and cost analysis are emphasized. (3 Lec.)

FHS 114 Front Office Procedures (3)

This course introduces the student to the operations, procedures and personnel functions of the front office. The course traces the flow of activities and functions performed in today's lodging operations. Comparisons are made of manual, machine assisted and computer based methods for each front office function. (3 Lec.)

FHS 115 Principles Of Hotel-Motel Administration (3)

The physical aspects of hotel-motel operations are analyzed. Included are procedures for emergencies, check cashing, use of credit cards, and collections of accounts receivable. Emphasis is also given to guest relations, guest room facilities, protection of the property, and the development of the properties' growth. (3 Lec.)

FHS 116 Supervision For Hospitality Services (3)

Recruiting, selecting, training and supervising personnel for food and lodging services are studied. Personnel policies, job descriptions, training methods, scheduling and work improvements are included. (3 Lec.)

FHS 119 Food Service Equipment (3)

This course covers food service equipment. Specifications, uses, cleaning, and preventive maintenance are emphasized. Equipment for preparation, cooking, refrigeration, storage, and cleanup is included. The relation of air conditioning, electricity, gas, and plumbing to food service facilities is examined. Layout analysis, design, and effective use of equipment and space are also covered. (3 Lec.)

FHS 120 Basic Food Preparation (3)

Quality food preparation and cookery are studied. Emphasis is on the importance of the person to be served, and the provision of nutritionally adequate meals. Food preparation techniques, selection of equipment, and the effective use of time are included. Laboratory fee. (2 Lec., 4 Lab.)

FHS 122 Advanced Food Preparation (3)

Prerequisite: Food and Hospitality Service 120. This course is a continuation of Food and Hospitality Service 120. Procedures for large quantities and management for food preparation are introduced. Topics include basic cookery, safety and sanitation factors, and selection of equipment. Emphasis is on high preparation techniques for high quality. Laboratory fee. (2 Lec., 4 Lab.)

FHS 124 Food Service Sanitation And Safety (3)

The principles of microbiology are studied and applied to the need for personal cleanliness. The cause, control, and investigation of illness caused by food contamination are explored. Other topics include sanitary practices, dish washing procedures, the use of cleaning materials, garbage and refuse disposal, general safety precautions, and elementary first aid. (3 Lec.)

FHS 132 Food Purchasing, Handling And Storage (3)

This course focuses on policies and procedures for purchasing food in quantity. Storage requirements, procedures, and controls are included. The availability of food supplies, analysis of food quality, and specification writing are also covered. (3 Lec.)

FHS 135 Nutrition And Menu Planning (3)

Food nutrients and their importance in maintaining health are surveyed. The digestive and absorptive characteristics of nutrients are included. The nutritional needs of all age groups are studied and applied to the planning of meals for business and institutions. Psychological needs, type of operation, and available equipment and personnel are all considered. (3 Lec.)

FHS 138 Food Service Cost Control (3)

Prerequisite: Mathematics 130. The principles and procedures of the control of food cost are presented. Emphasis is on applying the principles and procedures to any food service operation. (3 Lec.)

FHS 140 Elementary Bakery Training (3)

This course covers the work of the baker. Doughs, breads, pies, and cookies are analyzed and produced in quantity. Also covered are all types of fillings, butter creams, puddings, cakes, cake decorations and frostings. The use of proper flours and the handling of the pastry bag are stressed. Laboratory fee. (2 Lec., 4 Lab.)

FHS 201 Hotel-Restaurant-Institutions-Special Topics (1)

Prerequisite: Demonstrated competence approved by the instructor. Students participate in identifying, defining and analyzing current topics of interest in food and hospitality services. The course emphasizes present industry needs and problems, and students are guided to offer realistic and workable solutions which include the total knowledge of food and hospitality services processes. This course may be repeated for credit when topics vary. (1 Lec.)

FHS 202 Hotel-Restaurant-Institutions-Special Topics (2)

Prerequisite: Demonstrated competence approved by the instructor. Students participate in identifying, defining, and analyzing current topics of interest in food and hospitality services. The course emphasizes present industry needs and problems, and students are guided to offer realistic and workable solutions which include the total knowledge of food and hospitality services processes. This course may be repeated for credit when topics vary. (2 Lec.)

FHS 203 Hotel-Restaurant-Institutions-Special Topics (3)

Prerequisite: Demonstrated competence approved by the instructor. Students participate in identifying, defining and analyzing current topics of interest in food and hospitality services. The course emphasizes present industry needs and problems, and students are guided to offer realistic and workable solutions which include the total knowledge of food and hospitality services processes. This course may be repeated for credit when topics vary. (3 Lec.)

FHS 204 Hotel-Restaurant-Institutions-Special Topics (3)

Prerequisite: Demonstrated competence approved by the instructor. Students participate in lecture and laboratory situations in identifying, defining and analyzing current trends and topics of interest in the food and hospitality industry. The course emphasizes topics which are current needs and are covered in lectures. The laboratory allows each student to acquire hands-on experience in areas of food preparation, baking, pastry and other areas of the industry. This course may be repeated for credit when topics vary. (2 Lec., 4 Lab.)

FHS 210 Hotel-Motel Sales Development (3)

The technique of developing a marketing plan for any size operation are studied. Included is the development of the departments of the hotel into a coordinated team. Emphasis is on the organization and functioning of a sales department, sales tools, techniques, advertising, and types of markets. (3 Lec.)

FHS 214 Hotel-Motel Law (3)

This course covers the legal responsibilities and rights of the innkeeper. The consequences caused by failure in those responsibilities are illustrated. Topics include court attitudes toward an innkeeper where negligence and liability are involved. (3 Lec.)

FHS 220 Quantity Food Preparation And Service (4)

Prerequisite: Food and Hospitality Service 122. A lecture-laboratory course offering field training study of quantity food procedures and techniques with emphasis on retention of nutritive value of foods. Kitchen organization and planning of quantity production, use of large and small institutional equipment, food control and the associated supervisory problems as related to institutional and commercial food service. Includes study and use of convenience foods. Laboratory fee. (3 Lec., 5 Lab.)

FHS 222 Advanced Quantity Food Preparation And Service (4)

Prerequisite: Food and Hospitality Service 220. This course emphasizes the planning and management of quantity food production. Training in the field is provided. Practice is given in producing entire meals, including evaluation and controls. Quality food standards of various cost levels are studied. The planning, layout, and maintenance of equipment are also covered. Laboratory fee. (3 Lec., 5 Lab.)

FHS 233 Food Marketing (3)

The distribution of the finished product is introduced. Emphasis is on the consumer. Included are the activities involved in developing markets, customers, and distribution services. (3 Lec.)

FHS 238 Garde-Manger Training (3)

Prerequisite: Food and Hospitality Service 122. This course covers the preparation of the cold buffet. Included are salads, sandwiches, ice carvings, lard sculptures, chaud froids hors d'oeuvres, pates, cold fish, poultry, meats, and game. Also included is the proper setup of the garde-manger station. Laboratory fee. (2 Lec., 4 Lab.)

FHS 239 Saucier Training (3)

Prerequisite: Food and Hospitality Service 122. This course covers the preparation of basic soups, sauces, vegetables, and garnitures. All meats, fish, poultry, and game are also covered. The proper setup of the saucier station is also included. Laboratory fee. (2 Lec., 4 Lab.)

FHS 245 Advanced Pastry Shop Training (3)

Prerequisite: Food and Hospitality Service 140. This course covers the operation of the pastry shop. Topics include French pastry, hot and cold desserts, pastillage, ice creams, and ices, sugar fantasies, chocolate work, and decorations with cornet. Emphasis is on advance techniques in continental pastries. Laboratory fee. (2 Lec., 4 Lab.)

FHS 247 Beverage Operations And Service (3)

This course deals with beverage service in the commercial sector. Topics include basic bar operations, sales control, beverage service, and profits. A detailed analysis is made of the organization of a beverage bar, wine cellar, or catered beverage service. (3 Lec.)

FHS 248 Advanced Nutrition And Dietetics (3)

Prerequisite: Food and Hospitality Service 135. Nutrition knowledge is applied to the care of people. How people eat and what they eat is studied. The role of community health agencies, food and nutrition assistance programs and nutrition service agencies are studied. Techniques for evaluation of nutritional status and dietary intakes are included. Special emphasis is placed on meeting the needs of persons requiring modifications of food intake. The role of nutrition services extended through schools and supplementary food assistance programs is included. (3 Lec.)

FHS 249 Child Nutrition (3)

Prerequisite: Food and Hospitality Service 135. The nutrition of children is studied. The time period begins with birth and extends through childhood and adolescence. Emphasis is on the contribution of feeding programs in child care centers and schools. (3 Lec.)

FHS 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Food and Hospitality Service program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include outside reading in professional journals and books. Other topics include employment guidance in resume writing, security and holding interviews, and building a professional outlook. (1 Lec., 20 Lab.)

FHS 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Food and Hospitality Service program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The weekly seminar consists of discussions with industry leaders on management/supervisory styles, marketing strategies, and procurement problems. Students will be involved concurrently in outside readings on topics of special interest in the food and hospitality industry. (1 Lec., 20 Lab.)

FRENCH**FR 101 Beginning French (4)**

(Common Course Number FREN 1411)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)
(Coordinating Board Academic Approval Number 1609015131)

FR 102 Beginning French (4)

(Common Course Number FREN 1412)

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.)
(Coordinating Board Academic Approval Number 1609015131)

FR 201 Intermediate French (3)

(Common Course Number FREN 2311)

Prerequisite: French 102 or the equivalent. Reading, composition, and intense oral practice are covered in this course. Grammar is reviewed. (3 Lec.)
(Coordinating Board Academic Approval Number 1609015231)

FR 202 Intermediate French (3)

(Common Course Number FREN 2312)

Prerequisite: French 201 or the equivalent. This course is a continuation of French 201. Contemporary literature and composition are studied. (3 Lec.)
(Coordinating Board Academic Approval Number 1609015231)

FR 203 Introduction To French Literature (3)

(Common Course Number FREN 2303)

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. Grammar is reviewed and expanded. (3 Lec.)
(Coordinating Board Academic Approval Number 1609015331)

FR 204 Introduction To French Literature (3)

(Common Course Number FREN 2304)

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.)

(Coordinating Board Academic Approval Number 1609015331)

FR 207 French Conversation I (3)

(Common Course Number FREN 2306)

Prerequisite: French 101 and French 102 or the equivalent. This course is designed to strengthen and improve oral skills in the language. Oral activities focus on current events, cultural, historical and social issues. Audio-visual media are used to explore French life and society. This course is intended to complement French 201. (3 Lec.)

(Coordinating Board Academic Approval Number 1609015431)

FR 208 French Conversation II (3)

(Common Course Number FREN 1310)

Prerequisite: French 201 or the equivalent. This course is designed to further strengthen and improve oral skills in the language. Oral activities will continue to focus on current events, cultural, historical and social issues. Audio-visual media are used to explore French life and society. This course is intended to complement French 202. (3 Lec.)

(Coordinating Board Academic Approval Number 1609015431)

FR 211 French for Business I (3)

Prerequisites: French 201 or the equivalent. This course exposes students to the French language used in business including the terminology and idioms of French business language in special oral and written communication. Emphasis is placed on the structure and content of French business correspondence. Authentic materials are used to give students a contemporary view of business as it is conducted in French society. This course is not a substitute for French 201 or 202. (3 Lec.)

(Coordinating Board Academic Approval Number to be assigned. This is a unique need course.)

FR 212 French for Business II (3)

Prerequisite: French 211 or the equivalent. This course is devoted to the continued development of business language skills with a focus on the accurate use of business vocabulary and business style. Emphasis is on preparing students to function in French in a business setting via practice of receptive and productive linguistic skills. The course also provides training in cross-cultural communication skills. It is designed to help students achieve levels of proficiency to meet foreign language needs for business and international trade. This course is not a substitute for French 201 or 202. (3 Lec.)

(Coordinating Board Academic Approval Number to be assigned. This is a unique need course.)

GEOGRAPHY**GPY 101 Physical Geography (3)**

(Common Course Number GEOG 1301)

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.)

(Coordinating Board Academic Approval Number 4507015142)

GPY 102 Economic Geography (3)

(Common Course Number GEOG 2312)

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

(Coordinating Board Academic Approval Number 4507015242)

GPY 103 Cultural Geography (3)

(Common Course Number GEOG 1302)

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

(Coordinating Board Academic Approval Number 4507015342)

GPY 104 World Regional Geography (3)

(Common Course Number GEOG 1303)

A study of major developing and developed regions with emphasis on awareness of prevailing world conditions and developments, including emerging conditions and trends, and awareness of diversity of ideas and practices to be found in those regions. Course content may include one or more regions. (3 Lec.)

(Coordinating Board Academic Approval Number 4507015342)

GEOLOGY**GEO 101 Physical Geology (4)**

(Common Course Number GEOL 1403)

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.)

(Coordinating Board Academic Approval Number 4006015139)

GEO 102 Historical Geology (4)

(Common Course Number GEOL 1404)

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.)

(Coordinating Board Academic Approval Number 4006015139)

GEO 103 Introduction To Oceanography (3)

(Common Course Number GEOL 1345)

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.)
(Coordinating Board Academic Approval Number 4007035139)

GEO 201 Introduction To Rocks And Mineral Identification (4)

(Common Course Number GEOL 2409)

Prerequisites: Geology 101 and 102. This course introduces crystallography, geochemistry, descriptive mineralogy, petrology, and phase equilibria. Crystal models and hand specimens are studied as an aid to rock and mineral identification. Laboratory fee. (3 Lec., 3 Lab.)
(Coordinating Board Academic Approval Number 4006015239)

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.)
(Coordinating Board Academic Approval Number 4006015539)

GEO 207 Geologic Field Methods (4)

(Common Course Number GEOL 2407)

Prerequisites: Geology 101 and 102. This course covers basic geologic and topographic mapping, observation of geologic structures, and examination of petrologic systems in an actual field setting. Students will spend a major portion of the course collecting data for and constructing topographic and geologic maps and geologic cross sections and columns. (3 Lec., 3 Lab.)
(Coordinating Board Academic Approval Number 4006015539)

GEO 209 Mineralogy (4)

Prerequisites: Geology 101 and 102 and Chemistry 102. This course covers basic geochemistry; crystal chemistry; crystallography, including symmetry elements, stereographic and gnomonic projections, Miller indices, crystal systems, and forms; x-ray diffraction; optical properties of minerals; descriptive mineralogy including identification of hand specimens; and phase equilibria. Laboratory fee. (3 Lec., 3 Lab.)
(Coordinating Board Academic Approval Number 4006015239)

GERMAN

GER 101 Beginning German (4)

(Common Course Number GERM 1411)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)
(Coordinating Board Academic Approval Number 1605015131)

GER 102 Beginning German (4)

(Common Course Number GERM 1412)

Prerequisite: German 101 or the equivalent. This course is a continuation of German 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. (3 Lec., 2 Lab.)
(Coordinating Board Academic Approval Number 1605015131)

GER 201 Intermediate German (3)

(Common Course Number GERM 2311)

Prerequisite: German 102 or the equivalent or demonstrated competence approved by the instructor. Reading, composition, and intense oral practice are covered. Grammar is reviewed. (3 Lec.)
(Coordinating Board Academic Approval Number 1605015231)

GER 202 Intermediate German (3)

(Common Course Number GERM 2312)

Prerequisite: German 201 or the equivalent. This course is a continuation of German 201. Contemporary literature and composition are studied. Grammar is reviewed and expanded. (3 Lec.)
(Coordinating Board Academic Approval Number 1605015231)

GOVERNMENT

GVT 201 American Government (3)

(Common Course Number GOVT 2301)

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. (To ensure transferability, students should plan to take both Government 201 and 202 within the DCCCD.) (3 Lec.)
(Coordinating Board Academic Approval Number 4510025142)

GVT 202 American Government (3)

(Common Course Number GOVT 2302)

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. (To ensure transferability, students should plan to take both Government 201 and 202 within the DCCCD.) (3 Lec.)

(Coordinating Board Academic Approval Number 4510025142)

GVT 211 Introduction To Comparative Politics (3)

(Common Course Number GOVT 2331)

A comparative examination of governments, politics, problems and policies with illustrative cases drawn from a variety of political systems. (3 Lec.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

GRAPHIC ARTS

GA 120 Printing Fundamentals (3)

This course is a study of basic mathematics used in the printing industry. It includes proportional copy, enlargement and reduction, percentages, copy fitting, and conversion of inches into points and picas. Paper calculations for cutting and buying procedures are discussed. Laboratory fee. (2 Lec., 4 Lab.)

GA 125 Introduction to Pre-Press (3)

Prerequisite: Basic Skills Mastery at 10th grade level and higher. This course deals with the layout and design, paste up, image assembly, camera operations, image generation, and plate making. Laboratory fee. (2 Lec., 4 Lab.)

GA 134 Basic Camera Operations (3)

Prerequisite: Graphic Arts 120. This course introduces the student to the Graphic Arts darkroom and photolithographic process camera. Operation of horizontal and vertical cameras are taught. Lab assignments include PMT's line and halftone photography, contacting and an introduction to process color. Stripping and platemaking procedures are also included. Laboratory fee. (2 Lec., 4 Lab.)

GA 136 Beginning Copy Preparation (3)

Prerequisite: Graphic Arts 120. This course teaches the basic fundamentals of paste-up procedures. The student is introduced to design principles and balance. Lab assignments include proportions and paste-up of stationery, reply cards, and advertising posters. Laboratory fee. (2 Lec., 4 Lab.)

GA 140 Beginning Offset Printing (3)

Prerequisite: Basic Skills Mastery at 10th grade level and higher. This course covers principles, problems, and techniques of the operation of an offset press. Students learn how to use different plate materials to print sample line work. Registration is dealt with. Laboratory fee. (2 Lec., 4 Lab.)

GA 142 Basic Typesetting (3)

Prerequisite: Office Careers 172 or demonstrated competence approved by the instructor. This course is an introduction to photocomposition. It is a study of text, headline, and display type. Students will learn fundamentals of typesetting by setting cards, brochures, invitations, body copy, and simple charts. Laboratory fee. (2 Lec., 4 Lab.)

GA 143 Intermediate Offset Printing (3)

Prerequisite: Graphic Arts 140. This course covers halftones, two-color, and advanced line work with quality printing. Discussions regarding paper, pricing, and estimating procedures are covered. Troubleshooting for the offset press is included. Laboratory fee. (2 Lec., 4 Lab.)

GA 204 Electronic Publishing (4)

This course is designed to teach the student how to select, use, construct, implement, and integrate text, business graphics, data, line art and photographs to produce quality business publications electronically. Topics will include corporate publications, PC hardware and software requirements, text editing, graphics design, page layout, font selection, type measurement, copy fitting and laser printers. (2 Lec., 6 Lab.)

GA 206 Graphic Projects (3)

Prerequisite: Concurrent enrollment or 16 hours of credit in Graphic Arts. This course provides problem analysis and project development. It gives the student the opportunity of producing a complete printed product. Laboratory fee. (2 Lec., 4 Lab.)

GA 225 Special Topics (3)

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 Graphic Arts course with the demonstrated competence approved by the instructor. This course is repeatable for credit as topics vary. Laboratory fee. (2 Lec., 4 Lab.)

GA 234 Intermediate Camera Operations (3)

Prerequisite: Graphic Arts 134. Students gain expertise in working with problem line and halftone copy. Contacting and the use of filters are more fully discussed. Laboratory assignments include duotones, color keys, proofs, advanced stripping and platemaking techniques. Laboratory fee. (2 Lec., 4 Lab.)

GA 236 Advanced Copy Preparation (3)

Prerequisite: Graphic Arts 136. This course builds upon the skills developed in beginning copy preparation. Emphasis is on precision ruling, masking, scribing, design, and proportions. Principles of advertising and marketing are discussed. Laboratory fee. (2 Lec., 4 Lab.)

GA 240 Advanced Offset Printing (3)

Prerequisite: Graphic Arts 140. This course covers half-tones, two-color and advanced line work for quality printing. Minor press maintenance and care, with discussions of paper, pricing and estimating procedures, are covered. Troubleshooting for the small offset press is included. Laboratory fee. (2 Lec., 4 Lab.)

GA 241 Color Printing Production (3)

Prerequisite: Graphic Arts 240 or demonstrated competence approved by the instructor. This course covers topics involved with the production of multi-color pieces, flat and process, includes quality control. (2 Lec., 4 Lab.)

GA 242 Intermediate Typesetting (3)

Prerequisite: Graphic Arts 142. Advanced typesetting skills are acquired through business forms, graphs, newsletters, advertisements, etc. Proofreading and markup of copy for designated layouts will increase typesetting skills. Formatting and advanced codes will be included. Laboratory fee. (2 Lec., 4 Lab.)

GA 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Graphic Arts program or instructor approval. This introductory course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar will consist of an introduction to co-op, an orientation to on-the-job learning, writing the learning plan and college degree plan. (1 Lec., 20 Lab.)

GA 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Graphic Arts program or instructor approval. This advanced course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. The seminar will consist of a self-inventory, work values, selling yourself, and hints to keep a job. (1 Lec., 20 Lab.)

GREEK**GRK 101 Beginning Classical Greek (3)**

(Common Course Number GREE 1311)

The essentials of grammar and reading of easy prose are studied. Greek mythology and civilization and building of English vocabulary derived from Greek will also be studied. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1606015131)

GRK 102 Beginning Classical Greek (3)

(Common Course Number GREE 1312)

Prerequisite: Greek 101 or the equivalent. This course is a continuation of Greek 101. Essentials of grammar, the reading of easy prose, Greek mythology and civilization and vocabulary are studied. Laboratory fee.

(3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1606015131)

GRK 201 Intermediate Greek (3)

(Common Course Number GREE 2311)

Prerequisite: Greek 102 or the equivalent. Grammar is reviewed. Emphasis is on vocabulary study and readings from standard authors. (3 Lec.)

(Coordinating Board Academic Approval Number 1606015231)

GRK 202 Intermediate Greek (3)

(Common Course Number GREE 2312)

Prerequisite: Greek 201 or the equivalent. This course is a continuation of 201. Readings of standard authors are studied. (3 Lec.)

(Coordinating Board Academic Approval Number 1606015231)

HISTORY**HST 101 History Of The United States (3)**

(Common Course Number HIST 1301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4508025142)

HST 102 History Of The United States (3)

(Common Course Number HIST 1302)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4508025142)

HST 103 World Civilizations (3)

(Common Course Number HIST 2321)

This course presents a survey of ancient and medieval history with emphasis on Asian, African, and European cultures. (3 Lec.)

(Coordinating Board Academic Approval Number 4508015342)

HST 104 World Civilizations (3)

(Common Course Number HIST 2322)

This course is a continuation of History 103. The modern history and cultures of Asia, Africa, Europe, and the Americas, including recent developments, are presented. (3 Lec.)

(Coordinating Board Academic Approval Number 4508015342)

HST 105 Western Civilization (3)

(Common Course Number HIST 2311)

The civilization in the West from ancient times 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.)

(Coordinating Board Academic Approval Number 4508015442)

HST 106 Western Civilization (3)

(Common Course Number HIST 2312)

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.)

(Coordinating Board Academic Approval Number 4508015442)

HST 110 The Heritage Of Mexico (3)

(Common Course Number HIST 2380)

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.)

(Coordinating Board Academic Approval Number 4511015342)

HST 112 Latin American History (3)

(Common Course Number HIST 2331)

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.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

HST 120 Afro-American History (3)

(Common Course Number HIST 2381)

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.)

(Coordinating Board Academic Approval Number 4511015342)

HST 204 American Minorities (3)

(Common Course Number HUMA 2319)

Prerequisite: Sociology 101 or six 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.)

(Coordinating Board Academic Approval Number 4511015342)

HST 205 Advanced Historical Studies (3)

Prerequisite: Six hours of history. An in-depth study of minority, local, regional, national, or international topics is presented. This course may be repeated for credit when topics vary. (3 Lec.)

(Coordinating Board Academic Approval Number 4508015642)

HORTICULTURE TECHNOLOGY**HLN 131 Horticulture Science (4)**

This course covers the science and practices of ornamental horticulture. Stress is on the culture and growth of plants, landscaping, plant production, and nursery propagation. Laboratory fee. (3 Lec., 3 Lab.)

HLN 132 Landscape Trees (2)

The identification and classification of landscape trees are studied. Characteristics and landscape uses are included. Laboratory fee. (1 Lec., 3 Lab.)

HLN 133 Landscape Shrubs, Vines, And Ground Cover (2)

The identification and classification of landscape shrubs, vines, and ground covers are studied. Characteristics and landscape uses are included. Laboratory fee. (1 Lec., 3 Lab.)

HLN 134 Interior Plant Identification (2)

This course covers the identification and classification of tropical plants used in the home and commercial interior landscapes. Design characteristics for interiorscapes and environmental requirements of the plants used are included. (1 Lec., 3 Lab.)

HLN 140 Herbaceous And Exotic Plants (3)

The identification, culture, and use of ornamental herbaceous plants are studied. Plants for homes, gardens, and conservatories are included. Laboratory fee. (2 Lec., 3 Lab.)

HLN 141 Floral Design (4)

This course presents the principles of floral art, flowers, and other design materials. Special and unusual floral designs are included. Laboratory fee. (2 Lec., 6 Lab.)

HLN 145 Landscape Development I (3)

Prerequisite: Horticulture Technology 131 or demonstrated competence approved by the instructor. This course covers the planning and scheduling of landscape operations, the application of pesticides, the study of pests and diseases in the landscape, maintenance of landscaping tools and equipment, installation of irrigation systems, contracts and construction specifications, and related government regulations. Laboratory fee. (1 Lec., 6 Lab.)

HLN 146 Fundamentals Of Landscape Planning (3)

Concepts and practices used in preparing landscape plans and in constructing and improving landscapes are covered. Students will be introduced to the operations of the LandCAD computer design system. Laboratory fee. (1 Lec., 6 Lab.)

HLN 147 Landscape Development II (3)

Prerequisite: Horticulture Technology 131 or demonstrated competence approved by the instructor. This course trains the student in the use and maintenance of landscape plants, tree surgery and repair, pruning and training plants in the landscape, and the installation and maintenance of turf grasses in the landscape. Laboratory fee. (1 Lec., 6 Lab.)

HLN 227 Greenhouse Horticulture (4)

Prerequisites: Horticulture Technology 131. The construction and operation of ornamental horticulture production structures are studied. Included are greenhouses, plastic houses, lath houses, hotbeds, and coldframes. Emphasis is on installing, operating, and maintaining equipment for environmental control and efficiency in production operations. Laboratory fee. (2 Lec., 6 Lab.)

HLN 231 Landscape Design (4)

Prerequisites: Horticulture Technology 132, 133, and 146; Mathematics 195 or the equivalent is desirable. This course introduces the basic principles of landscape design for residences. Plant selection is included. Students will learn how to design a plat plan for a residential landscape using the LandCAD computer design system. Laboratory fee. (2 Lec., 6 Lab.)

HLN 233 Nursery Operations (3)

Prerequisites: Horticulture Technology 131. In this course emphasis is placed on nursery site selection and layout, plant growth and plant protection, and production in field nurseries and container nurseries. Laboratory fee. (2 Lec., 3 Lab.)

HLN 235 Propagation Of Woody Ornamental Plants (2)

Prerequisites: Horticulture Technology 131 and 140. This course covers all phases of propagation of woody ornamental plants including cutting and seed propagation and grafting, budding, and layering. It also includes the management of propagation facilities. Laboratory fee. (1 Lec., 3 Lab.)

HLN 238 Landscape Management (3)

Prerequisite: Horticulture Technology 231. This course provides advanced studies in landscape business operations including landscape contracting and garden center management. It is a study of the landscape horticulture industry, management practices, marketing methods and estimating, bidding and contracting landscape jobs. Laboratory fee. (2 Lec., 3 Lab.)

HLN 246 Problems And Practices In Industry (3)

Prerequisites: Horticulture 227 or Horticulture 233 or Horticulture 238 or Horticulture 249 or Horticulture 252 or concurrent enrollment. This course enables students to research current regional problems and practices in the ornamental horticulture industry. The student visits specialists; observes operations; conducts research on problems; implements findings; and prepares a report. This course may be repeated in place of Horticulture 703. (1 Lec., 6 Lab.)

HLN 248 Advanced Floral Design (3)

Prerequisite: Floral Design 141. This course is an advanced study of commercial floral design as used in the retail florist business. Advanced techniques in floral art are practiced in corsage making, wedding design, memorial decoration, religious and fraternal designs and other special occasion designs. Laboratory fee. (2 Lec., 3 Lab.)

HLN 249 Foliage Plants And Interiorscaping (3)

Prerequisites: Horticulture Technology 131, 134 and 140. This course covers the propagation, culture, and marketing of foliage plants and other tropical and subtropical plants used in interiorscapes. Principles of interiorscaping and care of plants in indoor environments are studied. Laboratory fee. (2 Lec., 3 Lab.)

HLN 250 Advanced Landscape Planning (3)

Prerequisites: Horticulture Technology 145 and 231. Landscape planning and design principles are studied in depth. Topics include advanced design analysis, architectural elements, space articulation, and engineering land and plant uses. Laboratory fee. Students will be introduced to advanced landscape planning with the LandCAD computer design system. (2 Lec., 3 Lab.)

HLN 252 Flower Shop Management (3)

Prerequisite: Horticulture Technology 141. This course is an advanced study of flower shop operations in the florist industry. Included in this study is the structure of the industry, shop location and organization, marketing methods, and management practices. Laboratory fee. (2 Lec., 3 Lab.)

HLN 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Horticulture Technology program or instructor approval. This course combines work experience with academic study. The student, employer, and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Each student must complete three objectives and work a minimum of 15 hours per week for a total of three credit hours. The seminars consist of 15 hours of group and individual learning experiences related to such topics as writing competency-based learning objectives, job related problem solving, interpersonal communication skills, and other topics as needed for success in the horticulture industry. (1 Lec., 15 Lab.)

HLN 713 Cooperative Work Experience (3)

Prerequisite: Completion of two courses in the Horticulture Technology program or instructor approval. This course combines work experience with academic study. The student should be gaining experience at a management or supervisory level position. The student, employer, and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Each student must complete three learning objectives and work a minimum of 15 hours per week for a total of three credit hours. The seminar consists of 15 hours of group and individual learning experiences related to such topics as development of management and supervisory skills, conducting interviews, negotiating business deals, and evaluating work performance of employees. (1 Lec., 15 Lab.)

HUMAN DEVELOPMENT**HD 092 Student Success (3)**

In this orientation course, students are introduced to academic and personal goal-setting and learning skills that enhance their chances for educational success. Students will learn how to develop positive attitudes toward themselves, improve communication and decision-making skills, and make effective use of campus resources. This course supports students enrolling in other appropriate remediation. (3 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

HD 100 Educational Alternatives (1)

The learning environment is introduced. Career, personal study skills, educational planning, and skills for living are all included. Emphasis is on exploring career and educational alternatives and learning a systematic approach to decision-making. A wide range of learning alternatives is covered, and opportunity is provided to participate in personal skills seminars. This course may be repeated for credit. (1 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

HD 104 Educational And Career Planning (3)

This course is designed to teach students the ongoing 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 nonverbal behaviors. The course content, which utilizes an experiential model, also focuses on developing communication and problem-solving skills. (3 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

HD 106 Personal And Social Growth (3)

This course focuses on the interactions between the individual and the social structures in which he/she 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.)

(Coordinating Board Academic Approval Number 3201995140)

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.)

(Coordinating Board Academic Approval Number 3201995140)

HD 108 The Master Student Course (3)

This course will provide an opportunity for the student to learn, practice and adopt specific strategies to support his or her success in college. Topics include individual learning skills, self-monitoring, goal-setting, problem solving, critical thinking, stress/time management, understanding motivation and procrastination, test anxiety, memory, creativity, and the importance of supportive relationships. (3 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

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 noncollegiate experiences which have contributed to college-level learning, and documentation of such experiences. This course may be repeated for credit. (1 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

HUMANITIES

HUM 101 Introduction To The Humanities (3)

(Common Course Number HUMA 1301)

Introduction to the Humanities focuses on the study and appreciation of the fine and performing arts and the ways in which they reflect the values of civilizations. (3 Lec.)

(Coordinating Board Academic Approval Number 5007035130)

HUM 102 Advanced Humanities (3)

(Common Course Number HUMA 1302)

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, film makers, musicians, dancers, philosophers, and theologians. The commonality of human experience across cultures and the premises for value choices are also stressed. (3 Lec.)

(Coordinating Board Academic Approval Number 2401035142)

INTERIOR DESIGN

INT 164 Color Theory And Application For Interior Designers (3)

Prerequisites: Interior Design major. Actual interior design studies will be given that will involve applying various color systems (with emphasis on Munsell), along with mixing techniques to gain desired hue, value, and intensities for solving design color schemes. Color psychologies are also investigated. Laboratory fee. (2 Lec., 4 Lab.)

INT 166 Interior Design Studio II (4)

Prerequisites: Art 165 and Interior Design 171. Introduction to the basic design principles as they apply to furniture layouts and space distribution for interiors. The complete design process is investigated. Freehand sketching is emphasized through plans, elevations, sections, perspectives, and schedules. Functional priorities, including circulation and spatial usages will be investigated. Building codes are introduced. Laboratory fee. (2 Lec., 5 Lab.)

INT 171 Drafting For Interior Designers (3)

Prerequisites: Interior Design major. This course provides the beginning interior design student with basic drafting skills including the correct use of drafting instruments and supplies to obtain good line quality and lettering. Emphasis is placed on the ability to draw orthographic projections and paraline drawings, and an introduction to architectural symbols, dimensioning and notes, and the use of the print machine to reproduce drawings. Building codes and barrier free design are utilized. Laboratory fee. (2 Lec., 4 Lab.)

INT 173 Construction Drawings For Interior Designers (3)

Prerequisite: Interior Design 171. This course teaches the student how to take design drawings and develop the necessary construction drawings needed to build a structure. Emphasis is on the knowledge of building construction as well as the correct representation of building materials and construction assemblies in construction drawings. Typical wood frame residential construction will be utilized with plans, elevations, sections, details, schedules, and specifications included to produce a representative set of building documents. Laboratory fee. (2 Lec., 4 Lab.)

INT 176 Perspective Drawing For Interior Designers (2)

Prerequisites: Interior Design 171. This course introduces the student to the principles of one- and two-point perspective construction. The "office method" of mechanical plotting will be utilized to teach basic perspective vocabulary. The "grid system" and perspective charts will be employed to teach speed and aesthetic values in interior spaces. Perspective shades and shadows will also be included. Laboratory fee. (6 Lab.)

INT 191 History Of Modern Design (3)

This course surveys the evolution of 20th Century design from the Industrial Revolution to the present, including 19th Century developments and major influences of the 20th Century. Special attention is given to significant designers, architects, and personalities and their affect on the modern movement. Laboratory fee. (3 Lec.)

INT 245 Design Sketching (3)

Prerequisite: Architecture 133 or Interior Design 176 or Art 114 or demonstrated competence approved by the instructor. This course includes an introduction to and the development of graphic skills needed to formulate and communicate design concepts. Study and practice of visualization and freehand perspective drawing of the student's own design are emphasized. Concepts in various media are the main activities covered. Laboratory fee. (2 Lec., 4 Lab.)

INT 261 Interior Design Studio III (3)

Prerequisites: Interior Design 166, 164, 173 and 176. The principles studied in Interior Design 166 are expanded to include studies and experimentation dealing with abstract spatial concepts leading to conceptual planning of specific spaces. Projects deal with general furnishings and simple manipulations of surfaces and volumes. Laboratory fee. (2 Lec., 4 Lab.)

INT 262 Interior Design Studio IV (3)

Prerequisites: Interior Design 261, 281, and 293. The principles studied in Interior Design 261 are expanded to include detailed space planning and selection of specific furnishings and accessories as well as design and detailing of millwork and other interior construction. Laboratory fee. (2 Lec., 4 Lab.)

INT 276 Delineation Techniques for Interior Designers (3)

Prerequisites: Interior Design 164 and 176. This course introduces the student to basic delineation techniques to render two- and three-dimensional drawings of interior architectural spaces. Emphasis is on the development of black and white and color rendering procedures dealing with plans, elevations, and perspectives. Media applied include graphite pencil, pen and ink, color pencil, markers, opaque media, and mixed media techniques of presentation. Laboratory fee. (2 Lec., 4 Lab.)

INT 281 Textiles For Interior Design (3)

This course is a study of the textile products, characteristics, and their uses as applied to the interior design industry. Fibers, yarns, construction, and finishes are individually studied. A history of decorative textiles and their uses in traditional interiors is included. Contemporary textiles and their application to new uses in interior design are studied. A project notebook is required. (3 Lec.)

INT 283 Materials For Interior Design (3)

Prerequisites: Interior Design major. A comprehensive overview is presented to introduce the student to the various interior design materials, finishes, and methods of construction installation that are available for specification today, and to compile an actual working source file through field trips, guest speakers, demonstrations, and class lectures. How to specify through measurements, millwork, finish types, quantities, and costs is stressed. (2 Lec., 4 Lab.)

INT 284 Lighting Design (3)

Prerequisites: Interior Design 164 and 173. Qualitative and quantitative aspects of lighting are assessed. Topics include lamp types, fixture systems, design calculations, system layouts, electrical symbols, electrical plans and specifications, lighting schedules, and emphasis on the effects of lighting systems on colors. Laboratory fee. (2 Lec., 4 Lab.)

INT 293 History Of Interior Arts (3)

Prerequisites: Art 105 and Art 106. This course is a historical survey of the interior arts and interior architecture covering the Antiquities, Italian Renaissance and the French styles. Emphasis for the semester is placed on the French styles. An illustrated research notebook is required. Laboratory fee. (3 Lec., 1 Lab.)

INT 294 Comparative Survey Of Styles (3)

Prerequisite: Interior Design 293. This course is a comparative survey of the interior arts and interior architecture of the English, Oriental, and American styles. Emphasis for the semester is placed on the English styles. An illustrated research notebook is required. Laboratory fee. (3 Lec., 1 Lab.)

INT 363 Interior Design Studio V (3)

Prerequisites: Interior Design 262, 276, 283, 284, and 294. The principles studied in Interior Design 262 are expanded to include consideration of spatial psychologies, historical design applications, and interior mechanical equipment. Laboratory fee. (2 Lec., 4 Lab.)

INT 364 Interior Design Studio VI (3)

Prerequisites: Interior Design 191, 363, 385, and 395. The principles studied in Interior Design 363 are expanded to include project management. Advanced construction documents are prepared. Efforts are made to achieve advanced levels of fully developed creative projects. Laboratory fee. (2 Lec., 4 Lab.)

INT 385 Professional Practice For Interior Designers (3)

Prerequisite: Interior Design 262 or demonstrated competence approved by the instructor. This course involves the theory and application of design office practices and procedures as well as discussion of client psychology. Various management systems and methods are studied. Topics include the marketing of professional services, coordination with consultants, professional organizations, legal and tax issues, business insurance, project management forms, building codes, and consumer issues. (3 Lec.)

INT 395 Restoration And Preservation (3)

Prerequisites: Interior Design 294 and concurrent enrollment in Interior Design 363 and 385. This is an introductory course to the many aspects of restoration, preservation, and adaptive reuse of structures and spaces. Emphasis is placed on the architectural interior. Legal and tax issues are discussed. Restoration projects involving actual local structures are studied, along with theoretical problems. Specialized resources are included. (2 Lec., 2 Lab.)

INT 702 Cooperative Work Experience (2)

Prerequisites: All second year major courses. This course provides practical work experience in a Dallas interior design studio with emphasis placed in the specialty of the students' choice. Areas of specialization are: commercial, residential, institutional, medical, architectural, retail, specifiers, lighting, restaurants, hotels, workroom vendors, computer aided drafting, education and others. The student, employer and instructor compile a written competency-based learning plan in the form of work objectives to be accomplished on the job. Sixteen seminar sessions each semester consist of informational speakers and film presentations concerning special problems and interests in the work place. This course may be repeated for credit. (1 Lec., 10 Lab.)

INT 703 Cooperative Work Experience (3)

Prerequisites: All second year major courses. This course provides practical work experience in a Dallas interior design studio with emphasis placed in the specialty of the students' choice. Areas of specialization are: commercial, residential, institutional, medical, architectural, retail, specifiers, lighting, restaurants, hotels, workroom vendors, computer aided drafting, education and others. The student, employer and instructor compile a written competency-based learning plan in the form of work objectives to be accomplished on the job. Sixteen seminar sessions each semester consist of informational speakers and film presentations concerning special problems and interests in the work place. This course may be repeated for credit. (1 Lec., 15 Lab.)

INTERNATIONAL BUSINESS AND TRADE

IBT 270 Export/Import Documentation And Transportation (3)

This course includes a study of ocean and air carriers, regulatory agencies, steamship conferences, international freight rates, packaging, marine insurance, U.S. Government export/import regulations, documentation, international trade terms, and letters of credit. This course may be repeated for credit. (3 Lec.)

IBT 271 International Information Systems (3)

Recommended prerequisite: Typing or keyboarding skill is necessary. Managing information systems and technology for multinational corporations is covered. The student will gain skill in the use of appropriate software and the National Trade Data Base. The role of global strategic information systems will be applied to problem solving. This course may be repeated for credit. (3 Lec.)

IBT 272 International Purchasing (3)

Recommended prerequisite: International Business and Trade 275. This course develops the skills needed by a buyer in international purchasing or sourcing. Topics covered include the advantages and the barriers of purchasing internationally, global sourcing and purchasing processes. Issues of contract administration, location and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics are included. This course may be repeated for credit. (3 Lec.)

IBT 273 Import Customs Regulations (3)

Recommended prerequisite: International Business and Trade 275. The duties and responsibilities of the licensed customs broker or customhouse broker are emphasized. Processes for customs clearance including appraisal, bonded warehouse entry, examination of goods, harmonized tariffs, fees, bonding, penalties, quotas, immediate delivery, consumption, and liquidation are covered. The student will become familiar with appropriate computerized systems, laws, and regulations. (3 Lec.)

IBT 275 Introduction to International Business and Trade (3)

The techniques for entering the international marketplace are covered. The impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors on the foreign trade environment are emphasized. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. This course may be repeated for credit. (3 Lec.)

IBT 276 International Marketing Management (3)

Recommended prerequisites: International Business & Trade 275 and Marketing 206. Opportunities for international trade are explored. Market trends, forecasting, pricing, sourcing, and distribution factors are utilized in the analysis of international marketing strategies. An international export/import financial marketing plan is developed. This course may be repeated for credit. (3 Lec.)

IBT 277 International Comparative Management (3)

Recommended prerequisite: International Business & Trade 275 and Management 136 or 237. Cross-cultural comparisons of management and trade practices are made. Cultural and geographic distinctions and antecedents that affect individual, group, and organizational behavior are emphasized. The sociocultural, demographic, economic, technological, and political-legal environments of cluster countries grouped by culture are related to organizational communication and decision making. This course may be repeated for credit. (3 Lec.)

IBT 278 International Finance (3)

Recommended prerequisites: Economics 201 and International Business & Trade 275. This course covers the international monetary system, financial markets, flow of capital, foreign exchange and financial institutions. Export-import payments and financing including the preparation of letters of credit, shipping documentation, and electronic transfers are provided. An introduction to multinational financial decisions, such as financing foreign investment or working capital, is made. This course may be repeated for credit. (3 Lec.)

IBT 279 International Business Law (3)

Recommended prerequisites: Business 234 and International Business & Trade 275. This course focuses on law as it applies to international business transactions in the global political-legal environment. Study is made of interrelationships among laws of different countries and the legal effects on individuals and business organizations. Topics introduced include international contracts and administration, regulation of exports and imports, technology transfers, regional transactions, intellectual property, and product liability. This course may be repeated for credit. (3 Lec.)

IBT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two core International Business and Trade courses or demonstrated competence approved by the instructor. This course combines international work experiences with college study. A competency-based plan describing learning objectives and work experiences is developed. A seminar relates the cross-cultural dimensions of contemporary international and business trade problems to functional areas such as marketing or finance and to work experiences. This course may be repeated for credit. (1 Lec., 20 Lab.)

INVASIVE CARDIOVASCULAR TECHNOLOGY

ICV 101 Introduction to Cardiovascular Technology (2)

Prerequisite: A grade of "C" or better in prerequisite courses of Biology 120 or 221, Mathematics 101, Chemistry 115 and English 101. Concurrent enrollment in Invasive Cardiovascular Technology 110 and 112. This course is designed to introduce the student to the field of invasive cardiovascular technology and the role of the Cardiovascular Technologist. Medical terminology, ethical-legal aspects and communication skills will be covered. (2 Lec.)

ICV 110 Cardiovascular Physiology (3)

Prerequisite: A grade of "C" or better in prerequisite courses of Biology 120 or 221, Mathematics 101, Chemistry 115 and English 101. Concurrent enrollment in Invasive Cardiovascular 101 and 112. This course provides a study of the anatomy, physiology, and structural relationships of the human heart and vascular system. This course will concentrate on cardiac anatomy, electrocardiology, cardiac hemodynamics, and the innervation of the heart. (3 Lec.)

ICV 112 Medical Instrumentation I (3)

Prerequisite: A grade of "C" or better in prerequisite courses of Biology 120 or 221, Mathematics 101, Chemistry 115 and English 101. Concurrent enrollment in Invasive Cardiovascular 101 and 110. This course emphasizes basic principles in medical electronics and computers for the cardiovascular student. The theory and operation of medical instrumentation will be the focus. (3 Lec.)

ICV 120 Cardiovascular Physiology II (3)

Prerequisite: A grade of "C" or better in all previous support courses and Invasive Cardiovascular Technology 101, 110, and 112. Concurrent enrollment in Invasive Cardiovascular Technology 122 and 124. This course is a continuation of Invasive Cardiovascular Technology 110 with emphasis on cardiac disease states. The methods of hemodynamic data collection and implications in relation to cardiac diseases will be studied. (3 Lec.)

ICV 122 Medical Instrumentation II (3)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 120 and 124. This course is a continuation of Invasive Cardiovascular Technology 112. The course will focus on the theory, calibration, operation and clinical application of cardiovascular diagnostic instrumentation. Methods of hemodynamic data collection, calculation, analysis and implications will be studied. Laboratory fee. (2 Lec., 2 Lab.)

ICV 124 Cath Lab Fundamentals I (3)

Prerequisite: A "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 120 and 122. This course introduces the diagnostic procedures used in the cath lab. Prior didactic instruction in cardiac physiology and medical instrumentation will be applied to cath lab procedures including patient preparation and monitoring, angiographic equipment setup and the coronary angiography procedure itself. Laboratory fee. (2 Lec., 2 Lab.)

ICV 130 Cath Lab Fundamentals II (1)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 132. This course is a continuation of Invasive Cardiovascular Technology 124. This course emphasizes x-ray technology and interventional procedures in the cardiac cath lab. Discussion will also focus on the beginning cath lab clinical experience. (3 Lec.)

ICV 132 Introduction To The Cath Lab (1)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 130. This course introduces the student to a working cath lab. Under the supervision of faculty and clinical staff, the student will observe and familiarize themselves with different cath labs, including setups, standard procedures, and laboratory operations. Laboratory fee. (8 Lab.)

ICV 134 Cardiac Cath I (1)

Prerequisite: A grade of "C" or better on all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 136. In this course, basic life support, cardiac pharmacology, and emergency procedures as they relate to the cath lab experience will be covered. (3 Lec.)

ICV 136 Cath Lab Clinical I (2)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 134. This course is a continuation of Invasive Cardiovascular Technology 132. Under the supervision of faculty and clinical staff, the student will observe, assist, and perform tasks specific to the cath lab in assigned affiliated hospital cath labs. Laboratory fee. (32 Lab.)

ICV 210 Cardiac Cath II (3)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular courses. Concurrent enrollment in Invasive Cardiovascular Technology 212. This course is a continuation of Invasive Cardiovascular Technology 134. An intensive study of advance cardiovascular diagnostic and therapeutic procedures will occur. Topics include percutaneous transluminal coronary angioplasty and electrophysiology studies. A term paper will be required. (3 Lec.)

ICV 212 Cath Lab Clinical II (5)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 210. This course is a continuation of Invasive Cardiovascular Technology 136. This course will provide the student continued opportunity to observe, assist, and perform tasks specific to the cath lab. Student will be assigned to an affiliated hospital cath lab. Laboratory fee. (24 Lab.)

ICV 220 Cath Lab III (3)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 222. This course is a continuation of Invasive Cardiovascular Technology 210. The student will study areas of opportunity outside the cath lab. These will include non-invasive cardiology, cardiac surgical procedures, and hospital administration as related to the cath lab. The course will also assist the student in role transition from student to cath lab employee. (3 Lec.)

ICV 222 Cath Lab Clinical III (5)

Prerequisite: A grade of "C" or better in all previous support courses and invasive cardiovascular course work. Concurrent enrollment in Invasive Cardiovascular Technology 220. This course is a continuation of Invasive Cardiovascular Technology 212. The student will be provided continued opportunity to observe, assist, and perform tasks specific to the cath lab. Students will be assigned to an affiliated hospital cath lab. Laboratory fee. (24 Lab.)

INTERPRETER TRAINING PROGRAM

ITP 140 Introduction To Deafness (3)

The psychology and history of educating the deaf are introduced. Emphasis is on the psychological, social, emotional, and occupational aspects of deafness. (3 Lec., 1 Lab.)

ITP 141 American Sign Language I (4)

Basic linguistic components (sentence patterns) of American Sign Language are introduced and practiced expressively and receptively. Students learn to describe signs in terms of hand configuration and palm direction. Fingerspelling is also introduced and practiced receptively and expressively. Laboratory fee. (3 Lec., 2 Lab.)

ITP 143 American Sign Language II (4)

Prerequisite: Interpreter Training 141. The linguistic components of American Sign Language will continue to be explored and practiced, both expressively and receptively. Receptive and expressive fingerspelling skills are increased. Basic vocabulary is expanded, and idioms are introduced. Emphasis is on mastering receptive skills. Laboratory fee. (3 Lec., 2 Lab.)

ITP 144 Psychosocial Aspects Of Deafness (3)

This course focuses on exploration of the psychosocial aspects of deafness. Vocational problems are also explored and studied. (3 Lec.)

ITP 148 Receptive Fingerspelling (1)

Prerequisite: Interpreter Training 141 or concurrent enrollment in Interpreter Training 141. This course increases the student's ability to read fingerspelling. Video tapes are used to demonstrate finger spelling--starting with two-letter words and progressing to words of several syllables. These words are presented individually as well as in sentences. (2 Lab.)

ITP 231 Interpreting: Ethics And Specifics (3)

Prerequisite: Interpreter Training 143 or demonstrated competence approved by the instructor. This class focuses on interpreter protocol, i.e., manner of dress, code of ethics, and language level. The student will learn about the preparation and training to become an interpreter for the deaf in different settings. Examples of these settings are legal, religious, vocational, medical, educational, counseling and rehabilitation. (3 Lec.)

ITP 240 American Sign Language III (4)

Prerequisite: Interpreter Training 143. Students will study linguistic aspects of American Sign Language and will apply this knowledge by translating written English selections into ASL. Students' vocabularies will be increased by their study of multiple English synonyms per ASL sign and "idiomatic" sign language expressions. Students will receive practice in the expressive and receptive modes of both sign language and fingerspelling. Emphasis will be on mastery of ASL. Laboratory fee. (3 Lec., 2 Lab.)

ITP 247 Special Topics In Deafness (3)

Prerequisite: Demonstrated competence approved by the instructor. Various topics are studied as demand warrants. Examples include introduction to rehabilitation, deaf/blind, mime, conversational skills in American Sign Language, and maintenance skills in American Sign Language. This course may be repeated for credit when topics vary. (3 Lec.)

ITP 248 Rehabilitation Of The Multiply Handicapped Deaf (3)

Other handicapping conditions accompanying deafness are studied. The emphasis is on problems of development and education and on severity of vocational problems when deafness is one of the handicaps. Techniques of management and instruction are included. Instructional personnel will include guest professionals from areas of all handicaps. (3 Lec., 1 Lab.)

ITP 250 Interpreting: Sign To Voice (3)

Prerequisite: Interpreter Training 240 or concurrent enrollment. This course is designed for the advanced sign language students. Sign to voice skills are developed and practiced through the use of video tapes, audio tapes and one-on-one practice demonstrations. (3 Lec.)

ITP 251 Educational/Specialized Signs (4)

Prerequisite: Interpreter Training 143. This course provides students with knowledge of sign terminology in the following areas: signs for educational purposes, medical, legal, drug use/abuse, and religious. Additional content areas are explored as needed. Laboratory fee. (3 Lec., 2 Lab.)

ITP 253 Interpreting: Voice To Sign (3)

Prerequisite: Interpreter Training 240 or concurrent enrollment. Students will acquire theoretical information pertaining to the expressive aspect of interpreting. Students will interpret in class by using audio and video tapes. Each student's vocabulary/sign choice and performance will be analyzed and recommendations made for improvement of delivery. Laboratory fee. (3 Lec.)

ITP 260 Practicum (3)

Prerequisites: Fifteen hours of Interpreter Training courses and demonstrated competence approved by the instructor. An extended practicum involves carefully selected areas of service to the deaf upon student demonstration of interest and aptitude. Course content is primarily applied practicum experiences in specific areas of interest. (10 Lab.)

ITP 702 Cooperative Work Experience (2)

Prerequisites: Completion of two courses in the Interpreter Training Program or instructor approval. This introductory course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of writing the learning plan, goal clarification and educational objectives, self-inventories, and attendance at specific conferences/workshops. (1 Lec., 10 Lab.)

JAPANESE

JPN 101 Beginning Japanese (4)

(Common Course Number JAPN 1411)

This course focuses on basic conversation, reading, and writing. Students will also be introduced to Japanese culture, customs and institutions. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1603025131)

JPN 102 Beginning Japanese (4)

(Common Course Number JAPN 1412)

Prerequisite: Japanese 101 or the equivalent. This course is a continuation of Japanese 101. Conversation, reading, and writing are continued. Students will continue study of Japanese culture, customs and institutions. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1603025131)

JPN 201 Intermediate Japanese (3)

(Common Course Number JAPN 2311)

Prerequisite: Japanese 101 and Japanese 102 or the equivalent. Reading, writing, and intense oral practice are covered. Japanese language structures, vocabulary and the phonetic system are reviewed. The study of culture and institutions is continued. (3 Lec.)

(Coordinating Board Academic Approval Number 1603025231)

JPN 202 Intermediate Japanese (3)

(Common Course Number JAPN 2312)

Prerequisite: Japanese 201 or the equivalent. This course is a continuation of Japanese 201. Reading, writing, and intense oral practice are continued. (3 Lec.)

(Coordinating Board Academic Approval Number 1603025231)

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.)

(Coordinating Board Academic Approval Number 0904035126)

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.)

(Coordinating Board Academic Approval Number 0904015726)

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 stories, and sidebars. Students are required to write for the campus newspaper. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 0904015826)

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. Student are required to work at prescribed periods under supervision and must attend staff meetings. (3 Lab.)

(Coordinating Board Academic Approval Number 0904015426)

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.)

(Coordinating Board Academic Approval Number 0904015426)

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. This course is a continuation of Journalism 105. (3 Lab.)

(Coordinating Board Academic Approval Number 0904015426)

JN 202 Principles Of Advertising (3)

Fundamentals of advertising, including advertising appeals, print and broadcast copy writing, and design and selection of media will be covered. Typography as it relates to advertising is stressed. The course will provide students with the concepts they will need to go into the advertising field and into advanced advertising courses. (3 Lec.)

(Coordinating Board Academic Approval Number 0902015126)

JN 203 Survey Of Broadcasting (3)

This course stresses broadcast organization and operations and includes the theoretical and historical aspects of broadcasting. It introduces students to the social, political, technical and economic aspects of the broadcasting industry. (3 Lec.)

(Coordinating Board Academic Approval Number 0904035226)

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.)

(Coordinating Board Academic Approval Number 0904015326)

LATIN

LAT 101 Beginning Latin (4)

(Common Course Number LATI 1411)

Grammar, vocabulary, and readings are introduced. Declensions of nouns, adjectives, pronouns, and conjugations of verbs are studied. Oral reading of simple sentences and written translations are introduced. Emphasis is placed on the value of Latin as background for the study of English and modern Romance languages. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1612035131)

LAT 102 Beginning Latin (4)

(Common Course Number LATI 1412)

Prerequisite: Beginning Latin 101 or the equivalent. This course is a continuation of Latin 101. Introduction to elementary grammatical structures is completed. Vocabulary study is continued. Reading from elementary classics is introduced. Emphasis is placed on the value of Latin as background for the study of English and modern Romance languages. Laboratory fee. (3 Lec., 2 Lab.)
(Coordinating Board Academic Approval Number 1612035131)

LAT 201 Intermediate Latin (3)

(Common Course Number LATI 2311)

Prerequisite: Latin 102 or the equivalent. The study of grammar is continued in this class. Emphasis is on readings of Latin prose. Emphasis is also placed on the value of Latin as background for the study of English and modern Romance languages. (3 Lec.)

(Coordinating Board Academic Approval Number 1612035231)

LAT 202 Intermediate Latin (3)

(Common Course Number LATI 2312)

Prerequisite: Latin 201 or the equivalent. This course is a continuation of Latin 201. Latin rhetoric, reading of lyrical and epic poetry, and a Latin comedy are included. Emphasis is placed on the value of Latin as background for the study of English and modern Romance languages. (3 Lec.)

(Coordinating Board Academic Approval Number 1612035231)

LEGAL ASSISTANT

LA 131 Introduction To Legal Technology (3)

Prerequisite: Legal Assistant 131 is a prerequisite for all other Legal Assistant courses except Legal Assistant 135. Legal technology is introduced. Topics include the legal technician concept, the legal profession and unauthorized practice, legal ethics and the "new profession" concept. The history and areas of American law are also included. Legal research, bibliography, legal drafting, and writing are also covered. (3 Lec.)

LA 133 Law Of Real Property And Real Estate Transactions (3)

Prerequisites: Legal Assistant 131, 135, and English 101. The law of real property and common real estate transactions are studied. Topics include contracts, leases, and deeds of trust. Problems involved in the drafting of these instruments are examined. The system of recording and the search of public documents are also covered. (3 Lec.)

LA 134 Principles Of Family Law (3)

Prerequisites: Legal Assistant 131, 135, and English 101. Family law is surveyed. Divorce, separation, custody, legitimacy, adoption, change of name, guardianship, support, domestic relations court procedures, and separation agreements are studied. (3 Lec.)

LA 135 Texas And Federal Court Systems (3)

Prerequisite: Legal Assistant 135 is a prerequisite for all other Legal Assistant courses except Legal Assistant 131. The Texas and federal courts are studied. Legal practices related to the courts and principles of court administration are examined. (3 Lec.)

LA 138 Introductory Legal Research And Drafting (3)

Prerequisites: Legal Assistant 131 and 135 and English 101. This course familiarizes the beginning legal assistant student with operation of a typical law library and the use of various legal research materials and tools. General and Texas legal research resources are emphasized. The student also studies legal research terminology, introductory computerized legal research techniques, and "shepardizing." Basic citation form for legal resource material is discussed. The student is given several opportunities to research rudimentary legal problems and write short case reports and legal memoranda. (3 Lec.)

LA 203 Legal Assistant Special Topics (3)

Prerequisites: Legal Assistant 131 and 135 and English 101. Students participate in identifying, defining and analyzing current topics of interest in legal assistant services. The course emphasizes present career needs and problems, and students are guided to offer realistic and workable solutions which include the knowledge of legal concepts and principles involved in legal assistant careers. (3 Lec.)

LA 225 Business Organizations (3)

Prerequisites: Legal Assistant 131, 135, and English 101. This course is a study of the practical aspects of the law of business organizations, including a "how-to-do-it" approach, with explanation of the legal principles which must be observed in counseling and enterprise. This course covers the common law principles of proprietorships and reviews the Uniform Partnership Act, the Uniform Limited Partnership Act, and the Model Business Corporation Act as they have been used and adopted in Texas law. (3 Lec.)

LA 227 Civil Litigation I (3)

Prerequisites: Legal Assistant 131, 135, English 101 or demonstrated competence approved by the instructor. This course is an overview of civil litigation in both state and federal courts with particular emphasis on the areas in which a legal assistant can assist the trial attorney. Particular attention is paid to preparation for litigation (interviewing clients and witnesses, reviewing public information), discovery proceedings (interrogatories, requests for admissions, depositions and document production), pretrial proceedings (motions to dismiss, motions for summary judgment, pretrial orders), and trial (witnesses and exhibits). Attention is also devoted to practical techniques required to cope with protracted or complex litigation, including organization of pleadings, documents and depositions; preparation of summaries, chronologies and indices; and maintaining a complex file in an orderly manner. Mention is made of the legal theories involved in complex litigation (e.g., product liability, civil rights, securities, and antitrust). Principal emphasis is on procedural techniques rather than substantive areas of law. (3 Lec.)

LA 230 Income Taxation (3)

Prerequisites: Legal Assistant 131 and 135 or demonstrated competence approved by the instructor. This course is a study of federal, state and local income taxation including discussion of tax-paying entities such as individuals, estates, trusts and corporations. Emphasis is on training in basic legal research skills related to income tax materials. (3 Lec.)

LA 231 Wills, Trusts, And Probate Administration (3)

Prerequisites: Legal Assistant 131, 133 and 135 or demonstrated competence approved by the instructor. The forms and principles of law for wills and trusts are covered. The organization and jurisdiction of the Texas Probate Court are studied. The administration of estates under the Texas Probate Code is analyzed, and estate and inheritance taxes are reviewed. (3 Lec.)

LA 232 Tort And Insurance Law And Claims Investigation (3)

Prerequisites: Legal Assistant 131, 135, and English 101 or demonstrated competence approved by the instructor. The law of torts and insurance is the focus of this course. The techniques of investigation involved in tort and insurance claims are considered, and the various forms of pleadings for making the claims are studied. (3 Lec.)

LA 234 Personal Property, Sales And Credit Transactions (3)

Prerequisites: Legal Assistant 131, 135, and English 101 or demonstrated competence approved by the instructor. The law of personal property and contracts is presented. Included are the special forms related to the law of sales and credit transactions and special drafting problems of various instruments and legal research projects. The Uniform Commercial Code and its effect are also included. (3 Lec.)

LA 238 Legal Office Management (3)

Prerequisites: Legal Assistant 131 and 135 and English 101. All aspects of law office management are covered. Topics include office organization, bookkeeping and accounting, fees and billing procedures, scheduling and calendaring, and ethics. Management of personnel, proofreading, file preparation, legal drafting, and procedures for specialized areas of law are also included. Trust accounts, law office forms, checklists and files, and disbursement on behalf of clients are covered. This course may be repeated for credit. (3 Lec.)

LA 240 Advanced Legal Research and Drafting (3)

Prerequisites: Legal Assistant 131, 135 and 138 and English 101. This course familiarizes the students with advanced legal research materials, particularly federal legal resources. Students continue their study from Legal Research 138 of computerized legal research techniques. This course also continues training in citation form begun in Legal Assistant 138. The student is given several opportunities to research various legal problems and to write legal documents such as an appellate brief. This course may be repeated for credit. (3 Lec.)

LA 248 Constitutional And Criminal Law (3)

Prerequisites: Legal Assistant 131 and 135 and English 101. This course covers freedom of communication and religion, individual privacy, private property and contractual rights, and criminal justice. Also studied are procedural due process and discrimination, rights and privileges of citizenship, states' powers and limitations, theories of federal government and its powers, congressional powers, the presidency, and the courts system and judicial review of constitutional issues. Special emphasis is put on the elements of criminal law and evidence with practice given on drafting documents related to these areas. (3 Lec.)

LA 251 Civil Litigation II (3)

Prerequisite: Legal Assistant 227. This course is a study coordinated with other legal technology courses at an advanced level. It includes specialized study and training in the preparation for and procedures of advanced litigation, including discovery and pretrial procedures, and specialized study of the basic legal concepts of antitrust and securities law, as well as the practical application of those concepts as the predominant topics of advanced litigation. (3 Lec.)

LA 253 Bankruptcy and Creditors' Rights (3)

Prerequisites: Legal Assistant 131 and 135 and English 101. This course provides the student with a historical overview of the Bankruptcy Code, Title 11, U.S.C., and understanding of the stages generally applicable to bankruptcy proceedings. The student will acquire a practical, comprehensive knowledge of chapters 7, 9, 11, and 13 of the Bankruptcy Code; the operations of the United States Trustee's Office; recovery of fraudulent and preferential transfers; creditors' rights under the Bankruptcy Code; and use of bankruptcy forms and schedules. Emphasis is put on preparation of documents related to this topic. (3 Lec.)

LA 255 Oil And Gas Law (3)

Prerequisite: Legal Assistant 133 or demonstrated competence approved by the instructor. Oil and gas law's history, terminology, and principle instruments are examined. Litigation of oil and gas matters, title determination, division of interest, and major regulatory agencies are also discussed. (3 Lec.)

LA 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Legal Assistant program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, job application and interview techniques, organizational skills and building self-esteem. (1 Lec., 15 Lab.)

LA 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Legal Assistant program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include preparation of resumes, job application and interview techniques, organizational skills and building self-esteem. (1 Lec., 20 Lab.)

LA 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Legal Assistant program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job site interpersonal relations, employer expectations of employees, analysis of job market research and changing jobs. (1 Lec., 15 Lab.)

LA 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Legal Assistant program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job site interpersonal relations, employer expectations of employees, analysis of job market research and changing jobs. (1 Lec., 20 Lab.)

LIBRARY SKILLS**LS 102 College Library Research Methods and Materials (3)**

This course is a survey of college research methodologies and materials with emphasis on search strategies appropriate for college-level research in the undergraduate disciplines, the structure and assessment of information sources within society, and the organization of academic libraries. Attention will also be given to the formal presentation of research results, including models of academic writing, bibliographic preparation and documentation standards. (3 Lec.)

(Coordinating Board Academic Approval Number is 2501019135)

MANAGEMENT**MGT 136 Principles Of Management (3)**

This course emphasizes the managerial functions of planning, organizing, staffing, directing, and controlling. Communication, motivation, leadership, and decision making are included. (3 Lec.)

MGT 140 Introduction To Total Quality Management (3)

This survey course is designed to provide students with a general overview of quality management. Participants will learn the various components and features unique to total quality. Course content will include: the Deming philosophy of quality, statistical process control tools for problem solving, fitness for use criteria, steps to statistical based management, data collection, team building and employee management strategies. (3 Lec.)

MGT 153 Small Business Management (3)

Small Business Management presents an introductory view of the basic entrepreneurial strategies for planning, financing, establishing, and operating a small business. Resources for both initial start-up and day-to-day operations are emphasized including market research, site selection, and such services as financial, legal, and accounting. (3 Lec.)

MGT 160 Principles Of Purchasing (3)

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

MGT 171 Introduction To Supervision (3)

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, leading, motivating, communicating, and counseling. (3 Lec.)

MGT 210 Small Business Capitalization, Acquisition And Finance (3)

Prerequisite: Accounting 201 or demonstrated competence approved by instructor. 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)

Skills in decision making necessary for the operation of a small business are covered. Topics include strategic planning, forecasting, organizational structure, and the expansion of such business functions as human resources, marketing, finance and accounting, purchasing, and control processes. (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 on 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 credit hours. (1 Lec.)

MGT 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.)

MGT 242 Human Resources Management (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 244 Problem Solving And Decision-Making (3)

The decision-making process and problem-solving as key components are the focus of this course. Topics include: individual, group, and organizational decision-making; logical and creative problem-solving techniques; and the use of decision aids by managers. Application of theory is provided by experiential activities such as small group discussions, case studies, and simulations. (3 Lec.)

MGT 704 Cooperative Work Experience (4)

Prerequisite: Previous credit in or concurrent enrollment in Management 171 or demonstrated competence approved by the instructor. This course is designed to develop the student's managerial skills through the completion of a written competency-based learning plan describing varied student learning objectives and planned work experience. Emphasis is on improving leadership skills and goal-setting. (1 Lec., 20 Lab.)

MGT 714 Cooperative Work Experience (4)

Prerequisite: Previous credit in or concurrent enrollment in Management 242 or demonstrated competence approved by the instructor. This course is designed to develop the student's managerial skills through the completion of a written competency-based learning plan describing varied student learning objectives and planned work experience. Emphasis is on the role of managers in job analysis/job descriptions and interviewing techniques. (1 Lec., 20 Lab.)

MGT 804 Cooperative Work Experience (4)

Prerequisite: Previous credit in or concurrent enrollment in Management 237 or demonstrated competence approved by the instructor. This course is designed to develop the student's managerial skills through the completion of a written competency-based learning plan describing varied student learning objectives and planned work experience. Emphasis is on improving motivational techniques and communicating. (1 Lec., 20 Lab.)

MGT 814 Cooperative Work Experience (4)

Prerequisite: Previous credit in or concurrent enrollment in Management 244 or demonstrated competence approved by the instructor. This course is designed to develop the competency-based learning plan describing varied student learning objectives and planned work experience. Emphasis is on individual and group decision-making and rational and creative problem solving. (1 Lec., 20 Lab.)

(PSA) See POSTAL SERVICE ADMINISTRATION

MANUFACTURING ENGINEERING TECHNOLOGY

MET 231 Engineering Materials (3)

This course is a study of common engineering materials. Emphasis is on material characteristics and modern industrial applications. (3 Lec.)

MET 234 Production And Inventory Control (3)

This course is a study of methods used in controlling production and inventory. Areas covered include demand forecasting, order quantities, scheduling and dispatching. Computer applications are introduced. (3 Lec.)

MET 235 Industrial Safety (3)

This course is a study of accident and loss prevention in modern industry. Inspections, investigations, record keeping, training, laws, codes, workman's compensation, insurance and problem solving are included. (3 Lec.)

MET 238 Principles Of Work Measurement (3)

This course covers the fundamentals of time and motion study procedures including use of samplings, formulas, charts, diagrams, and equipment. Emphasis is on improving productivity. (3 Lec.)

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 211 Special Topics In Fashion Marketing (1)

Selected topics in fashion marketing are presented in this course which may include showroom management, fashion markets, apparel production, cultural and international influences. Special topics may vary from semester to semester to address contemporary concerns. This course may be repeated for credit when topics vary, up to a maximum of three credit hours. (1 Lec.)

MKT 212 Special Topics In Fashion Marketing (2)

Selected topics in fashion marketing are presented in this course which may include showroom management, fashion markets, apparel production, cultural and international influences. Special topics may vary from semester to semester to address contemporary concerns. This course may be repeated for credit when topics vary, up to a maximum of four credit hours. (2 Lec.)

MKT 222 Fashion Show Production (2)

Students will learn artistic fashion presentation essential in apparel promotion. The topics included are show themes, set design, apparel selection, accessories, make-up, modeling, commentary, direction, staging, music, lighting, budgeting and scheduling. Student productions and attendance of fashion shows are emphasized. Laboratory fee. (2 Lec.)

MKT 223 Special Topics In Fashion Marketing (3)

Selected topics in fashion marketing are presented in this course which may include showroom management, fashion markets, apparel production, cultural and international influences. Special topics may vary from semester to semester to address contemporary concerns. This course may be repeated for credit when topics vary, up to a maximum of six credit hours. (3 Lec.)

MKT 224 Computer Graphics: Marketing Applications (3)

This course presents an overview of computer graphics systems utilizations in design, manufacturing and marketing. Students will generate advertising and product presentations, sketches, charts, graphs, slides, transparencies and videos with specialized graphics hardware and software. No prior computer experience is necessary. (3 Lec., 1 Lab.)

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.)

MKT 239 Automated Inventory Management (3)

Through the use of computer models, students will operate their own retail stores with emphasis on inventory management. Intensive practice with buying, mark-downs, price tag generation, sales, and analysis will be emphasized. Accounts payable for store vendors, and accounts receivable for store customers will also be covered. Laboratory fee. (3 Lec., 1 Lab.)

MKT 251 Visual Merchandising (3)

Concepts and skills essential to effectively promote fashion merchandise are the focus of this course. Experience will be gained in principles and elements of design, color, props, lighting, sign layout, budget, themes and sources of materials. These components will be applied to the creation of interior and window displays that sell. Laboratory fee. (3 Lec., 1 Lab.)

MKT 290 Fashion Buying (3)

This course focuses on the principles of fashion buying. It is designed to prepare the student for employment as an assistant buyer or buyer of fashion merchandise. (3 Lec.)

MKT 291 Fashion Merchandising (3)

This course introduces the field of fashion. Emphasis is on its historical development and trends, career opportunities, marketers, and merchandising methods. (3 Lec.)

MKT 292 Fashion Design (3)

This course is an introductory study in the fields of apparel manufacturing and design. Color, theory, design principles, silhouette, and organization of women's, men's, and children's wear lines will be explored. Emphasis will be placed on design theory rather than actual practice. (3 Lec.)

MKT 703 Cooperative Work Experience (3)

Prerequisite: Completion of two courses in the Fashion Marketing, or Sales, Marketing and Retail programs or demonstrated competence approved by the instructor. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Seminar topics will include personal issues, business ethics, customer service and interpersonal skills. Analysis and evaluation of job performance will be completed by faculty and employer. (1 Lec., 15 Lab.)

MKT 713 Cooperative Work Experience (3)

Prerequisite: Previous credit in Marketing 703, completion of two courses in the Fashion Marketing or Sales, Marketing and Retail programs or demonstrated competence approved by the instructor. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experience. Students must develop new learning objectives each semester. Seminar topics in the areas of business, communications, organizational behavior, networking, and professional organizations will be included. Analysis and evaluation of job performance will be completed by faculty and employer. (1 Lec., 15 Lab.)

MATHEMATICS

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

MTH 101 College Algebra (3)

(Common Course Number MATH 1314)

Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course is a study of relations and functions including polynomial, rational, exponential, logarithmic, and special functions. Other topics include variation, complex numbers, systems of equations and inequalities, theory of equations, progressions, the binomial theorem, proofs, and applications. (3 Lec.)

(Coordinating Board Academic Approval Number 2701015437)

MTH 102 Plane Trigonometry (3)

(Common Course Number MATH 1316)

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.)

(Coordinating Board Academic Approval Number 2701015337)

MTH 103 College Algebra (3)

Prerequisites: Two years of high school algebra and an appropriate assessment score or Developmental Mathematics 093. This course is a study of relations and functions including polynomial, rational, exponential, logarithmic, and special functions. Other topics include variation, complex numbers, systems of equations and inequalities, theory of equations, progressions, the binomial theorem, proofs, and applications. (4 Lec.)

(Coordinating Board Academic Approval Number is 2701015437.)

MTH 109 Precalculus Mathematics (4)

(Common Course Number MATH 2312)

Prerequisites: Two years of high school algebra and trigonometry and an appropriate assessment test score. This course consists of the application of algebra and trigonometry to the study of polynomial, rational, exponential, logarithmic and trigonometric functions and their graphs. Conic sections, polar coordinates, and other topics of analytic geometry will be included. (4 Lec.)

(Coordinating Board Academic Approval Number 2701015837)

MTH 111 Mathematics For Business And Economics I (3)

(Common Course Number MATH 1324)

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.)

(Coordinating Board Academic Approval Number 2703015237)

MTH 112 Mathematics For Business And Economics II (3)

(Common Course Number MATH 1325)

Prerequisite: Mathematics 111. This course includes limits, differential calculus, integral calculus, and appropriate applications. (3 Lec.)

(Coordinating Board Academic Approval Number 2703015237)

MTH 115 College Mathematics I (3)

(Common Course Number MATH 1332)

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.)

(Coordinating Board Academic Approval Number 2701015137)

MTH 116 College Mathematics II (3)

(Common Course Number MATH 1333)

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.)

(Coordinating Board Academic Approval Number 2701015137)

MTH 117 Fundamental Concepts Of Mathematics For Elementary Teachers (3)

(Common Course Number MATH 1335)

Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course includes the structure of the real number system and geometry. Emphasis is on the development of mathematical reasoning needed for elementary teachers. (3 Lec.)

(Coordinating Board Academic Approval Number 2701015137)

MTH 121 Analytic Geometry (3)

(Common Course Number MATH 1348)

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.)

(Coordinating Board Academic Approval Number 2701015537)

MTH 124 Calculus I (5)

(Common Course Number MATH 2513)

Prerequisite: Mathematics 109 or 121 or equivalent. This course is a study of limits, continuity, derivatives, and integrals of algebraic and transcendental functions, with applications. (5 Lec.)

(Coordinating Board Academic Approval Number 2701015937)

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 136 Mathematics for Allied Health (3)

Prerequisite: Developmental Mathematics 090 or an appropriate test score. This course is a study of percents, apothecary system, metric system, linear equations, literal equations, gas laws, magnification laws, and statistics which includes histograms, bar graphs, pie-charts, averages, standard deviations and variances. Also included are basic concepts of geometry. (3 Lec.)

MTH 139 Applied Mathematics (3)

The 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 Mathematics 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)

(Common Course Number MATH 1342)

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.)

(Coordinating Board Academic Approval Number 2705015137)

MTH 215 Discrete Mathematics (3)

(Common Course Number MATH 2305)

Prerequisites: Mathematics 124 and an introductory programming course. This course is a study of sets, algebraic structures (relations, functions, groups, and Boolean Algebra), combinatorics, graphs, logic, algorithms, and applications to computing devices. (3 Lec.)

(Coordinating Board Academic Approval Number 2703017137)

MTH 221 Linear Algebra (3)

(Common Course Number MATH 2318)

Prerequisite: Mathematics 124 or equivalent. This course is a study of matrices, linear equations, dot products, cross products, geometrical vectors, determinants, n-dimensional space, and linear transformations. (3 Lec.)

(Coordinating Board Academic Approval Number 2701016137)

MTH 225 Calculus II (4)

(Common Course Number MATH 2414)

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.)

(Coordinating Board Academic Approval Number 2701015937)

MTH 226 Calculus III (3)

(Common Course Number MATH 2315)

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.)

(Coordinating Board Academic Approval Number 2701015937)

MTH 230 Differential Equations (3)

(Common Course Number MATH 2320)

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.)

(Coordinating Board Academic Approval Number 2703015137)

MTH 297 Technical Mathematics III (3)

Prerequisite: Mathematics 196. This course will introduce the concepts and applications of calculus used in the field of Engineering Technology. Included are basic concepts from analytic geometry, differential calculus, and integral calculus. Practical application of the derivative and of integration in technology will be emphasized. (3 Lec.)

MEDICAL LABORATORY TECHNOLOGY

MLT 130 Introduction Seminar (1)

Prerequisite: Acceptance into the Medical Laboratory Technology Program. Laboratory mathematics with clinical applications, quality assurance, laboratory safety, phlebotomy and medical ethics are presented. Laboratory fee. (2 Lab.)

MLT 133 Hematology (4)

Prerequisite: Acceptance into the Medical Laboratory Technician Program and concurrent enrollment in Medical Laboratory Technology 130 and 134. The theory and basic techniques used in the hematological examination of blood are presented. Laboratory fee. (3 Lec., 4 Lab.)

MLT 134 Instrumentation (2)

Prerequisites: Acceptance into the Medical Laboratory Technology Program and a minimum grade of "C" or concurrent enrollment in Medical Lab Technology 130. The theory of laboratory instruments including microscopes, centrifuges, hematological and clinical chemistry instrumentation is presented. Trouble shooting problems is included. Laboratory fee. (1 Lec., 3 Lab.)

MLT 136 Immunology/Serology (3)

Prerequisites: Minimum grade of "C" in Medical Laboratory Technology 130 or demonstrated competence approved by instructor. The theory and practice of clinical immunology are presented. Serological laboratory procedures are performed and applied to diagnostic correlations. Laboratory fee. (2 Lec., 3 Lab.)

MLT 137 Immunochemistry (3)

Prerequisites: Acceptance into the Medical Laboratory Technology Program and a minimum grade of "C", or concurrent enrollment in Medical Lab Technology 136. The theory and practice of clinical immunochemistry are presented. An overview of modern blood banking will include component preparation to specialized testing necessary for antibody identification. Laboratory fee. (2 Lec., 4 Lab.)

MLT 141 Clinical Practice I (4)

Prerequisites: Minimum grade of "C" in all previous Medical Laboratory Technology course work and an overall minimum grade of "C" in nontechnical course work. This course provides supervised clinical practice in hematology, serology, and blood banking. The student is assigned to a clinical laboratory. (35 Lab.)

MLT 225 Urinalysis And Body Fluids (3)

Prerequisites: Minimum grade of "C" in Medical Laboratory Technology 130, 134 and 137 or demonstrated competence approved by the instructor. This course is a study of the theory and laboratory procedures used in the analysis of urine and other body fluids. Laboratory fee. (2 Lec., 4 Lab.)

MLT 229 Medical Microbiology I (4)

Prerequisites: Completion of the first year of the Medical Laboratory Technology Program or demonstrated competence approved by the instructor. The fundamentals of microbial life are studied. Methods and procedures used in diagnostic microbiology are covered. Included are the principles of aseptic techniques, susceptibility testing of bacteria, quantification of selected bacteria. The normal body flora are discussed, and the relationship of these bacteria to disease in humans is emphasized. Laboratory fee. (3 Lec., 4 Lec.)

MLT 231 Clinical Chemistry (4)

Prerequisites: Minimum grade of "C" in Medical Laboratory Technology 229 and completion of Chemistry 203. This course focuses on the theory and procedures used in the clinical chemistry laboratory. Both manual and automated methods are presented in lectures and laboratory assignments. Laboratory fee. (3 Lec., 4 Lab.)

MLT 237 Medical Microbiology II (2)

Prerequisite: Minimum grade of "C" in Medical Laboratory Technology 229. This course is a continuation of Medical Laboratory Technology 229. It includes a study of the isolation and identification procedures for selected bacteria, fungi, and parasites. Laboratory fee. (1 Lec., 4 Lab.)

MLT 241 Clinical Practice II (4)

Prerequisites: Minimum grade of "C" in all previous Medical Laboratory Technology course work and an overall minimum grade of "C" in nontechnical course work. This course provides supervised clinical practice in diagnostic microbiology and clinical chemistry and urinalysis. The student is assigned to a clinical laboratory. (35 Lab.)

MEDICAL TRANSCRIPTION

MTR 131 Medical Terminology (4)

Prerequisite: Admission to Medical Transcription program and concurrent enrollment in Biology 123 or approval by the instructor. This course is a study of the basic structure of medical words. Included are prefixes, suffixes, roots, combining forms and plurals. Emphasis is on pronunciation, spelling, and definitions. Exercises in the use of the medical dictionary are included. (4 Lec.)

MTR 133 Fundamentals of Medical Transcription (3)

Prerequisite: Admission to the Medical Transcription program and typing skills of 50 words per minute corrected or instructor approval. This course is an introduction to the health care record and medical documentation. Included will be transcription of basic medical dictation utilizing English mechanics and machine transcription skills. Proofreading, editing and accuracy and production will be stressed. Medical legal and ethics issues will also be covered. Laboratory fee. (2 Lec., 3 Lab.)

MTR 135 Disease Processes I (2)

This course includes the study of common human disease conditions, including prevention, etiology, signs and symptoms, diagnostic and treatment modalities and prognosis. Medical references will be used for research and verification. (2 Lec.)

MTR 137 Introduction to Medical Word Processing (2)

Prerequisite: Admission to the Medical Transcription program. This course is designed to introduce students to the concepts of word processing with actual experience in composing, dictating, and producing simulated written communications as used in the medical field. Laboratory fee. (1 Lec., 2 Lab.)

MTR 141 Medical Transcription (4)

Prerequisite: Admission to the Medical Transcription program and completion of Medical Transcription 133 and prior course work with a "C" or better or instructor approval. Speed and accuracy in transcription, use of transcribing equipment, and medical- surgical terminology are all included in this course. Practice in completing medical forms, transcribing medical-surgical reports, and handling medical correspondence is emphasized. Laboratory fee. (2 Lec., 6 Lab.)

MTR 145 Disease Processes II (4)

Prerequisite: "C" or better in previous courses and completion of Medical Transcription 135. This course is a continuation of Medical Transcription 135. Common human disease conditions will be covered. Included will be prevention, etiology, signs and symptoms, diagnostic and treatment modalities and prognosis. (4 Lec.)

MTR 714 Cooperative Work Experience (4)

Prerequisite: Completion of all Medical Transcription course work with a "C" or better or the ability to transcribe 50 corrected words per minute with less than three errors per page, in Medical Transcription 133 or coordinator approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar will consist of exploration and analysis of the impact of the work environment on the medical transcriptionist. Resources for professional and career development will be included. (1 Lec., 20 Lab.)

MORTGAGE BANKING

MB 101 Loan Origination (3)

This course provides the student with an introduction to the mortgage loan application process. Topics include regulatory compliance and documentation, real estate sales contracts, how to pre-qualify borrowers and how to explain the mortgage application to borrowers. (3 Lec.)

MB 102 Loan Underwriting (3)

This course is designed to provide the student with an in-depth training of mortgage loan underwriting for all facets of conventional loans as well as some discussion of FHA/VA lending practices. It provides a thorough understanding of Underwriting Guidelines as set forth by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation and most institutional type lenders. Topics include analyzing and evaluating documentation, analyzing IRS forms and working with private and secondary market investors. (3 Lec.)

MB 103 Loan Closing (3)

This course provides the student with comprehensive training in mortgage loan closing with an in-depth study of title commitments/policies, engineer's survey, deed restrictions, and various documents (legal and other) used for residential mortgage loans. (3 Lec.)

MB 104 Loan Quality Control (1)

This course provides the student with the understanding of quality control, its purpose and procedure. The student will learn to distinguish abnormal unacceptable transactions as well as to resolve the deficiencies noted. (1 Lec.)

MB 205 Loan Servicing (3)

This specialized course examines how mortgage lenders handle loans from the time a loan is closed until the final payment is made. The course focuses on the legal aspects and actual procedures used in the daily operations of the loan servicing function. Topics include escrow accounting, contract servicing, governmental regulations, taxing authorities and establishing tax rates and economic impacts of delinquency. (3 Lec.)

MB 206 Secondary Market (3)

This course provides a study of the purpose of the secondary mortgage market and its history. Included are review of the policies and programs of the major secondary market conduits; review of the basic strategies used in the selling of closed real estate mortgages into the secondary market; conventional and government segments; mortgage backed securities and bonds; regulatory requirements; GNMA mortgage backed securities; preparing and completing loans for sale and in servicing sold loans. Other topics are institutional and non-institutional lenders and characteristics provided; overview of types of mortgages; history, and alternative mortgage instruments. (3 Lec.)

MB 207 Investor Accounting (3)

This course provides the student with an introduction to accounting and investor reporting functions that relate to the financial aspects of servicing mortgages that are in either a first or second position. Topics include custodial and remittance accounting methods, reporting procedures and rules for establishment of a custodial account. (3 Lec.)

MB 704 Cooperative Work Experience (4)

Prerequisites: Completion of two core Mortgage Banking courses, concurrent enrollment in a core or related course or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of the development of a personalized on-the-job training plan and discussions with field experts on the application of mortgage banking fundamentals which may include finance, law, lending practices, government regulations and servicing. (1 Lec., 20 Lab.)

MB 714 Cooperative Work Experience (4)

Prerequisites: Completion of two core Mortgage Banking courses, concurrent enrollment in a core or related course or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of the development of a personalized on-the-job training plan and discussions with field experts on the application of mortgage banking fundamentals which may include finance, law, lending practices, government regulations and servicing. (1 Lec., 20 Lab.)

MOTORCYCLE MECHANICS**MM 134 Motorcycle Service Principles (4)**

This course includes the principles of operation and failure analysis of two and four cycle engines. The principles of basic electricity as applied to motorcycles are also covered. Laboratory fee. (120 Contact Hours)

MM 135 Motorcycle Tune-Up (4)

This course covers the tune-up procedures for two and four cycle motorcycles, including ignition service, carburetion theory and service, and complete adjustment procedures. Laboratory fee. (120 Contact Hours)

MM 136 Motorcycle Two Stroke Engine/Transmission (4)

This course includes overhaul procedures for two stroke motorcycle engines and transmissions. Laboratory fee. (120 Contact Hours)

MM 137 Motorcycle Four Stroke Engine/Transmission (4)

This course includes overhaul procedures for four stroke motorcycle engines and transmissions. Laboratory fee. (120 Contact Hours)

MM 138 Motorcycle Electrical Systems (4)

This course includes the theory of operation and troubleshooting procedures for motorcycle ignition, charging systems, and accessories. Laboratory fee. (120 Contact Hours)

MM 139 Motorcycle Chassis And Drive Systems (4)

Included in this course is the theory of operation and service procedures for motorcycle front and rear suspensions, wheel and brake systems, and final drives. Laboratory fee.. (120 Contact Hours)

MM 703 Cooperative Work Experience (3)

Prerequisite: Completion of two courses in the Motorcycle Mechanics program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, employer expectations of employees and service repair liability. (1 Lec., 15 Lab.)

MUSIC**MUS 103 Guitar Ensemble (1)**

(Common Course Number MUSI 1137)

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.)

(Coordinating Board Academic Approval Number 5009035830)

MUS 104 Music Appreciation (3)

(Common Course Number MUSI 1306)

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.)

(Coordinating Board Academic Approval Number 5009025130)

MUS 105 Italian Diction (1)

(Common Course Number MUSI 1160)

The phonetic sounds of the Italian language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(Coordinating Board Academic Approval Number 5009085330)

MUS 106 French Diction (1)

(Common Course Number MUSI 2161)

The phonetic sounds of the French language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(Coordinating Board Academic Approval Number 5009085330)

MUS 107 German Diction (1)

(Common Course Number MUSI 2160)

The phonetic sounds of the German language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(Coordinating Board Academic Approval Number 5009085330)

MUS 108 English Diction (1)

(Common Course Number MUSI 1161)

The phonetic sounds of the English language are studied. Included is selected vocabulary. This course is primarily for voice majors. (2 Lab.)

(Coordinating Board Academic Approval Number 5009085330)

MUS 110 Music Literature (3)

(Common Course Number MUSI 1308)

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.)

(Coordinating Board Academic Approval Number 5009025230)

MUS 111 Music Literature (3)

(Common Course Number MUSI 1309)

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.)

(Coordinating Board Academic Approval Number 5009025230)

MUS 112 Guitar Literature And Materials (3)

The body of music for the guitar is surveyed. Emphasis is on the repertoire of instruments in the guitar family, such as the lute. Transcription and arranging are studied as well as the selection of a program for public performance. (3 Lec.)

(Coordinating Board Academic Approval Number 5009025230)

MUS 113 Foundations Of Music I (3)

(Common Course Number MUSI 1300)

This course is the initial course to prepare students with limited music training for Music 145. It focuses on notation (music reading), musical terminology, analysis, listening to and creating rhythmic and melodic responses. (3 Lec.)

(Coordinating Board Academic Approval Number 5009045430)

MUS 114 Foundations Of Music II (3)

Prerequisite: Music 113 or demonstrated competence approved by the instructor. 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.)

(Coordinating Board Academic Approval Number 5009045430)

MUS 115 Jazz Improvisation (2)

(Common Course Number MUSI 1263)

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.)

(Coordinating Board Academic Approval Number 5009036530)

MUS 117 Piano Class I (1)

(Common Course Number MUSI 1181)

This course is primarily for students with no piano background. It develops basic musicianship and piano skills. This course may be repeated for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 5009075130)

MUS 118 Piano Class II (1)

(Common Course Number MUSI 1182)

Prerequisite: Music 117 or demonstrated competence approved by the instructor. The study of piano is continued. Included are technique, harmonization, transposition, improvisation, accompanying, sight reading, and performing various styles of repertoire. This course may be repeated for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 5009075130)

MUS 119 Guitar Class I (1)

(Common Course Number MUSI 1192)

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.)

(Coordinating Board Academic Approval Number 5009035130)

MUS 120 Guitar Class II (1)

(Common Course Number MUSI 1193)

Prerequisite: Music 119 or demonstrated competence approved by the instructor. 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.)

(Coordinating Board Academic Approval Number 5009035130)

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 121 Applied Music-Piano (1)

(Common Course Number MUAP 1169)
(Coordinating Board Academic Approval Number 5009035430)

MUS 122 Applied Music-Organ (1)

(Common Course Number MUAP 1165)
(Coordinating Board Academic Approval Number 5009035430)

MUS 123 Applied Music-Voice (1)

(Common Course Number MUAP 1181)
(Coordinating Board Academic Approval Number 5009035430)

MUS 124 Applied Music-Violin (1)

(Common Course Number MUAP 1101)
(Coordinating Board Academic Approval Number 5009035430)

MUS 125 Applied Music-Viola (1)

(Common Course Number MUAP 1105)
(Coordinating Board Academic Approval Number 5009035430)

MUS 126 Applied Music-Cello (1)

(Common Course Number MUAP 1109)
(Coordinating Board Academic Approval Number 5009035430)

MUS 127 Applied Music-Double Bass (1)

(Common Course Number MUAP 1113)
(Coordinating Board Academic Approval Number 5009035430)

MUS 128 Applied Music-Flute (1)

(Common Course Number MUAP 1117)
(Coordinating Board Academic Approval Number 5009035430)

MUS 129 Applied Music-Oboe (1)

(Common Course Number MUAP 1121)
(Coordinating Board Academic Approval Number 5009035430)

MUS 130 Applied Music-Clarinet (1)

(Common Course Number MUAP 1129)
(Coordinating Board Academic Approval Number 5009035430)

MUS 131 Applied Music-Bassoon (1)

(Common Course Number MUAP 1125)
(Coordinating Board Academic Approval Number 5009035430)

MUS 132 Applied Music-Saxophone (1)

(Common Course Number MUAP 1133)
(Coordinating Board Academic Approval Number 5009035430)

MUS 133 Applied Music-Trumpet (1)

(Common Course Number MUAP 1137)
(Coordinating Board Academic Approval Number 5009035430)

MUS 134 Applied Music-French Horn (1)

(Common Course Number MUAP 1141)
(Coordinating Board Academic Approval Number 5009035430)

MUS 135 Applied Music-Trombone (1)

(Common Course Number MUAP 1145)
(Coordinating Board Academic Approval Number 5009035430)

MUS 136 Applied Music-Baritone (1)

(Common Course Number MUAP 1149)
(Coordinating Board Academic Approval Number 5009035430)

MUS 137 Applied Music-Tuba (1)

(Common Course Number MUAP 1153)
(Coordinating Board Academic Approval Number 5009035430)

MUS 138 Applied Music-Percussion (1)

(Common Course Number MUAP 1157)
(Coordinating Board Academic Approval Number 5009035430)

MUS 139 Applied Music-Harp (1)

(Common Course Number MUAP 1177)
(Coordinating Board Academic Approval Number 5009035430)

MUS 140 Applied Music-Guitar (1)

(Common Course Number MUAP 1161)
(Coordinating Board Academic Approval Number 5009035430)

MUS 141 Applied Music-Electric Bass (1)

(Common Course Number MUAP 1115)
(Coordinating Board Academic Approval Number 5009035430)

MUS 143 Applied Music-Drum Set (1)

(Common Course Number MUAP 1158)
(Coordinating Board Academic Approval Number 5009035430)

MUS 145 Music Theory I (3)

(Common Course Number MUSI 1311)
Prerequisite: Music 113 and 114 or demonstrated competence approved by the instructor. This course is designed for music majors and minors. Emphasis is on notation, cadences, classification of diatonic triads, scales, and modes. It is recommended that students enrolled in Music 161 enroll in this course. (3 Lec.)
(Coordinating Board Academic Approval Number 5009045130)

MUS 146 Music Theory II (3)

(Common Course Number MUSI 1312)
Prerequisite: Music 145 or demonstrated competence approved by the instructor. 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 contemporary periods. It is recommended that students enrolled in Music 162 enroll in this course. (3 Lec.)
(Coordinating Board Academic Approval Number 5009045130)

MUS 147 Synthesizer Class I (1)

Prerequisite: Music 117 or prior keyboard experience. This course is an entry-level performance course designed to teach students the basic theoretical concepts and performance skills necessary to perform on synthesizers. (3 Lab.)

(Coordinating Board Academic Approval Number 5009037130)

MUS 148 Synthesizer Class II (1)

Prerequisite: Music 147 or prior music synthesizer experience. This course is a continuation of Music 147. This course emphasizes the rehearsal and performance of commercial music styles. FM synthesis is introduced and a variety of programmable equipment is surveyed including drum machines, sequencers, digital samplers and computer software. (3 Lab.)

(Coordinating Board Academic Approval Number 5009037130)

MUS 150 Chorus (1)

(Common Course Number MUSI 2143)

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.)

(Coordinating Board Academic Approval Number 5009035730)

MUS 151 Voice Class I (1)

(Common Course Number MUSI 1183)

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.)

(Coordinating Board Academic Approval Number 5009085130)

MUS 152 Voice Class II (1)

(Common Course Number MUSI 1184)

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.)

(Coordinating Board Academic Approval Number 5009085130)

MUS 153 Digital Music Production (3)

Prerequisite: One semester of music theory and keyboard or demonstrated competence approved by the instructor. This course is designed to introduce major/non-major music students to the MIDI technology as an extension of the music theory/keyboard curriculum. Various MIDI devices, computer hardware, and computer software will be explored. This course may be repeated for credit. (2 Lec., 1 Lab.)

(Coordinating Board Academic Approval Number is 5009045130.)

MUS 154 Digital Music Production (3)

Prerequisite: Successful completion of Music 153 or demonstrated competence approved by the instructor. This course is a continuation of Music 153 and will present advanced concepts in music production. This course may be repeated for credit. (2 Lec., 1 Lab.)

(Coordinating Board Academic Approval Number is 5009045130.)

MUS 155 Vocal Ensemble (1)

(Common Course Number MUSI 1143)

Prerequisite: Demonstrated competence approved by the instructor. Activities include study and performance of specialized choral literature suitable for more advanced students. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035730)

MUS 156 Madrigal Singers (1)

(Common Course Number MUSI 1152)

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.)

(Coordinating Board Academic Approval Number 5009035830)

MUS 160 Band (1)

(Common Course Number MUSI 1237)

Prerequisite: Demonstrated competence approved by the instructor. 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.)

(Coordinating Board Academic Approval Number 5009035830)

MUS 161 Musicianship I (1)

(Common Course Number MUSI 1116)

Prerequisite: Music 113 and 114 or demonstrated competence approved by the instructor. Keyboard skills and aural skills (including sight-singing and ear training) are developed. It is recommended that students enrolled in Music 145 enroll in this course. (3 Lab.)

(Coordinating Board Academic Approval Number 5009045830)

MUS 162 Musicianship II (1)

(Common Course Number MUSI 1117)

Prerequisite: Music 161. This course is a continuation of Music 161. It is recommended that students enrolled in Music 146 enroll in this course. (3 Lab.)

(Coordinating Board Academic Approval Number 5009045830)

MUS 166 History Of Jazz/Rock Music (3)

(Common Course Number MUSI 1310)

The study of social and musical influences on Jazz/Rock music and the influence of Jazz/Rock Music on society and the music industry. This course may be repeated for credit. (3 Lec.)

(Coordinating Board Academic Approval Number 5009025330)

MUS 170 Orchestra (1)

(Common Course Number MUSI 1123)

Prerequisite: Demonstrated competence approved by the instructor. Experience is provided in performing and reading orchestral literature and in participating in the college orchestra. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035530)

MUS 171 Woodwind Ensemble (1)

(Common Course Number MUSI 1133)

Prerequisite: Demonstrated competence approved by the instructor. A group of woodwind instrumentalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 172 Brass Ensemble (1)

(Common Course Number MUSI 1134)

Prerequisite: Demonstrated competence approved by the instructor. A group of brass instrumentalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 173 Percussion Ensemble (1)

(Common Course Number MUSI 1138)

Prerequisite: Demonstrated competence approved by the instructor. A group of percussion instrumentalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 174 Keyboard Ensemble (1)

(Common Course Number MUSI 1132)

Prerequisite: Demonstrated competence approved by the instructor. A group of keyboard instrumentalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 175 String Ensemble (1)

(Common Course Number MUSI 1139)

Prerequisite: Demonstrated competence approved by the instructor. A group of string instrumentalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 176 Symphonic Wind Ensemble (1)

(Common Course Number MUSI 1140)

Prerequisite: Demonstrated competence approved by the instructor. In the symphonic wind ensemble, students study and perform stylistic literature of all periods. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035630)

MUS 177 Chamber Ensemble (1)

(Common Course Number MUSI 1151)

Prerequisite: Demonstrated competence approved by the instructor. A group of chamber instrumentalists or vocalists read and perform literature for small ensembles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035830)

MUS 180 Audio Production For Voice (2)

This course is designed to introduce students to audio production as it relates to the human voice. Topics include physiology of the voice, technical skills for the studio singer and speaker, jingle copyrighting, and studio and sound support production. The course concludes with individually produced advertising jingles. (1 Lec., 2 Lab.)

MUS 181 Lab Band (1)

(Common Course Number MUSI 2237)

Prerequisite: Demonstrated competence approved by the instructor. Students study and perform various forms of commercial music, such as jazz, pop, avant-garde, and fusion. Student arranging, composing, and conducting are encouraged. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035830)

MUS 184 Jazz Ensemble (1)

(Common Course Number MUSI 1125)

Prerequisite: Demonstrated competence approved by the instructor. The jazz ensemble rehearses and performs a variety of jazz styles. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5009035530)

MUS 189 Computerized Music Production I (2)

This course serves as an introduction to computer-based music production. Areas covered include basic operation of synthesizers, sequencers, music scoring programs, and synthesizer editing programs. (2 Lec., 2 Lab.)

MUS 190 Survey Of Recording (2)

This descriptive course includes an introduction to audio recording. This introduction includes the nature of sound, operation of recording equipment, session procedures, studio techniques, simultaneous recording, and multi-track recording. (2 Lec.)

MUS 191 Survey Of Recording Laboratory (1)

Prerequisite: Successful completion of or concurrent enrollment in Music 190. This course parallels Music 190 and provides students with laboratory experiments in the operation of recording equipment, session procedures, and audio techniques. The course also includes acoustic and electronic theory. (3 Lab.)

MUS 192 Music In America (3)

American music and musicians from early times to the present are surveyed. Various styles and periods are covered. Religious, folk, jazz, rock, musical theater, and contemporary developments are included. (3 Lec.)

MUS 193 Improvisation (3)

The creation of spontaneous melodic and harmonic ideas and the translation of these ideas into notation are emphasized. Using scales and modes, the instrumentalist improvises on the student's major instrument. The vocalist uses scat singing techniques. Analysis of transcribed solos and student transcriptions are included. (3 Lec.)

MUS 194 Jazz Workshop (3)

This course is for the advanced instrumentalist and vocalist. Jazz is performed in recitals and scheduled functions. Discussion, analysis, writing, rehearsing, improvising, and style are emphasized. Articulating, phrasing, and conducting jazz compositions are discussed with guest artists who work and perform with the group periodically. (3 Lec.)

MUS 196 Business Of Music (3)

The world of the music industry is presented. Topics include performing, engineering, producing, music merchandising, music teaching, song writing, performing rights organizations, demo tapes, resumes, agents and managers, concert promotion and the 1976 Copyright Act. Lecture will be supplemented by consultant and guest panel discussions. (3 Lec.)

MUS 197 Studio Technology (2)

Prerequisites: Music 190 and 191 or demonstrated competence approved by the instructor. This course is an intensive study of the theory of studio, microphone, and multi-track mix down techniques. (2 Lec.)

MUS 198 Studio Technology Laboratory (1)

Prerequisite: Completion of or concurrent enrollment in Music 197 or demonstrated competence approved by the instructor. This course reinforces, by application and demonstration, the theory covered in Music 197. By the end of this course, a student is able to perform the basic operations necessary to operate a multi-track studio. Laboratory fee. (3 Lab.)

MUS 199 Recital (1)

This is an on-campus concert/seminar series designed to provide a laboratory and listening experience as an extension of classroom music studies. Concerts, seminars and workshops are presented by guest artists and lecturers, faculty members and students. This is a one-hour credit course and may be repeated for credit. (2 Lab.)

MUS 203 Composition (3)

(Common Course Number MUSI 1186)

Prerequisites: Music 145 and 146 or demonstrated competence approved by the instructor. This course covers composing in small forms for simple media in a variety of styles. This course may be repeated for credit. (3 Lec.)
(Coordinating Board Academic Approval Number 5009045330)

MUS 205 Guitar Pedagogy (1)

(Common Course Number MUSI 2192)

Guitar method books are surveyed. Emphasis is on the strengths and weaknesses of each method. Structuring lessons and optimizing each individual teacher-student relationship are also discussed. (2 Lec.)
(Coordinating Board Academic Approval Number 5009035130)

MUS 217 Piano Class III (1)

(Common Course Number MUSI 2181)

Prerequisite: Music 117 and 118 or demonstrated competence approved by the instructor. This course is a continuation of functional keyboard skills, including harmonization, sight-reading, 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.)
(Coordinating Board Academic Approval Number 5009075130)

MUS 218 Piano Class IV (1)

(Common Course Number MUSI 2182)

Prerequisite: Music 217 or demonstrated competence of the instructor. 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.)
(Coordinating Board Academic Approval Number 5009075130)

MUS 221-243 Applied Music-Concentration (2)

This course is open to students enrolled in music theory, ensembles, or other music major and minor courses. It provides private instruction in the area of the student's concentration and consists of one hour of instruction per week. Private music may be repeated for credit. Laboratory fee required. (1 Lec.)

MUS 221 Applied Music-Piano (2)

(Common Course Number MUAP 2269)

(Coordinating Board Academic Approval Number 5009035430)

MUS 222 Applied Music-Organ (2)

(Common Course Number MUAP 2265)

(Coordinating Board Academic Approval Number 5009035430)

MUS 223 Applied Music-Voice (2)

(Common Course Number MUAP 2281)

(Coordinating Board Academic Approval Number 5009035430)

MUS 224 Applied Music-Violin (2)
(Common Course Number MUAP 2201)
(Coordinating Board Academic Approval Number 5009035430)

MUS 225 Applied Music-Viola (2)
(Common Course Number MUAP 2205)
(Coordinating Board Academic Approval Number 5009035430)

MUS 226 Applied Music-Cello (2)
(Common Course Number MUAP 2209)
(Coordinating Board Academic Approval Number 5009035430)

MUS 227 Applied Music-Double Bass (2)
(Common Course Number MUAP 2213)
(Coordinating Board Academic Approval Number 5009035430)

MUS 228 Applied Music-Flute (2)
(Common Course Number MUAP 2217)
(Coordinating Board Academic Approval Number 5009035430)

MUS 229 Applied Music-Oboe (2)
(Common Course Number MUAP 2221)
(Coordinating Board Academic Approval Number 5009035430)

MUS 230 Applied Music-Clarinet (2)
(Common Course Number MUAP 2229)
(Coordinating Board Academic Approval Number 5009035430)

MUS 231 Applied Music-Bassoon (2)
(Common Course Number MUAP 2225)
(Coordinating Board Academic Approval Number 5009035430)

MUS 232 Applied Music-Saxophone (2)
(Common Course Number MUAP 2233)
(Coordinating Board Academic Approval Number 5009035430)

MUS 233 Applied Music-Trumpet (2)
(Common Course Number MUAP 2237)
(Coordinating Board Academic Approval Number 5009035430)

MUS 234 Applied Music-French Horn (2)
(Common Course Number MUAP 2241)
(Coordinating Board Academic Approval Number 5009035430)

MUS 235 Applied Music-Trombone (2)
(Common Course Number MUAP 2245)
(Coordinating Board Academic Approval Number 5009035430)

MUS 236 Applied Music-Baritone (2)
(Common Course Number MUAP 2249)
(Coordinating Board Academic Approval Number 5009035430)

MUS 237 Applied Music-Tuba (2)
(Common Course Number MUAP 2253)
(Coordinating Board Academic Approval Number 5009035430)

MUS 238 Applied Music-Percussion (2)
(Common Course Number MUAP 2257)
(Coordinating Board Academic Approval Number 5009035430)

MUS 239 Applied Music-Harp (2)
(Common Course Number MUAP 2277)
(Coordinating Board Academic Approval Number 5009035430)

MUS 240 Applied Music-Guitar (2)
(Common Course Number MUAP 2261)
(Coordinating Board Academic Approval Number 5009035430)

MUS 241 Applied Music-Electric Bass (2)
(Common Course Number MUAP 2215)
(Coordinating Board Academic Approval Number 5009035430)

MUS 243 Applied Music-Drum Set (2)
(Common Course Number MUAP 2258)
(Coordinating Board Academic Approval Number 5009035430)

MUS 245 Music Theory III (3)
(Common Course Number MUSI 2311)
Prerequisite: Music 145 and 146 or demonstrated competence approved by the instructor. This course is a continuation of the study of music theory. It includes the materials of modulation, larger forms, and thematic development, and more advanced analysis. It is recommended that students enrolled in Music 271 enroll in this course. (3 Lec.)
(Coordinating Board Academic Approval Number 5009045230)

MUS 246 Music Theory IV (3)
(Common Course Number MUSI 2312)
Prerequisite: Music 245 or demonstrated competence approved by the instructor. 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. It is recommended that students enrolled in Music 272 enroll in this course. (3 Lec.)
(Coordinating Board Academic Approval Number 5009045230)

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, or other music major and minor courses. It provides private instruction in the area of the student's major instrument and consists of one hour of instruction per week. This course may be repeated for credit. Laboratory fee. (1 Lec.)

MUS 251 Applied Music-Piano (3)
(Common Course Number MUAP 2369)
(Coordinating Board Academic Approval Number 5009035430)

MUS 252 Applied Music-Organ (3)
(Common Course Number MUAP 2365)
(Coordinating Board Academic Approval Number 5009035430)

MUS 253 Applied Music-Voice (3)
(Common Course Number MUAP 2381)
(Coordinating Board Academic Approval Number 5009035430)

MUS 254 Applied Music-Violin (3)
(Common Course Number MUAP 2301)
(Coordinating Board Academic Approval Number 5009035430)

MUS 255 Applied Music-Viola (3)
(Common Course Number MUAP 2305)
(Coordinating Board Academic Approval Number 5009035430)

MUS 256 Applied Music-Cello (3)
(Common Course Number MUAP 2309)
(Coordinating Board Academic Approval Number 5009035430)

MUS 257 Applied Music-Double Bass (3)
(Common Course Number MUAP 2313)
(Coordinating Board Academic Approval Number 5009035430)

MUS 258 Applied Music-Flute (3)
(Common Course Number MUAP 2317)
(Coordinating Board Academic Approval Number 5009035430)

MUS 259 Applied Music-Oboe (3)
(Common Course Number MUAP 2321)
(Coordinating Board Academic Approval Number 5009035430)

MUS 260 Applied Music-Clarinet (3)
(Common Course Number MUAP 2329)
(Coordinating Board Academic Approval Number 5009035430)

MUS 261 Applied Music-Bassoon (3)
(Common Course Number MUAP 2325)
(Coordinating Board Academic Approval Number 5009035430)

MUS 262 Applied Music-Saxophone (3)
(Common Course Number MUAP 2333)
(Coordinating Board Academic Approval Number 5009035430)

MUS 263 Applied Music-Trumpet (3)
(Common Course Number MUAP 2337)
(Coordinating Board Academic Approval Number 5009035430)

MUS 264 Applied Music-French Horn (3)
(Common Course Number MUAP 2341)
(Coordinating Board Academic Approval Number 5009035430)

MUS 265 Applied Music-Trombone (3)
(Common Course Number MUAP 2345)
(Coordinating Board Academic Approval Number 5009035430)

MUS 266 Applied Music-Baritone (3)
(Common Course Number MUAP 2349)
(Coordinating Board Academic Approval Number 5009035430)

MUS 267 Applied Music-Tuba (3)
(Common Course Number MUAP 2353)
(Coordinating Board Academic Approval Number 5009035430)

MUS 268 Applied Music-Percussion (3)
(Common Course Number MUAP 2357)
(Coordinating Board Academic Approval Number 5009035430)

MUS 269 Applied Music-Harp (3)
(Common Course Number MUAP 2361)
(Coordinating Board Academic Approval Number 5009035430)

MUS 270 Applied Music-Guitar (3)
(Common Course Number MUAP 2361)
(Coordinating Board Academic Approval Number 5009035430)

MUS 271 Musicianship III (1)
(Common Course Number MUSI 2118)
Prerequisite: Music 161 and 162 or demonstrated competence approved by the instructor. Keyboard and aural skills (including sight-singing and ear training) are developed. It is recommended that students enrolled in Music 245 enroll in this course. (3 Lab.)
(Coordinating Board Academic Approval Number 5009045730)

MUS 272 Musicianship IV (1)
(Common Course Number MUSI 2118)
Prerequisite: Music 271 or demonstrated competence approved by the instructor. This course is a continuation of Music 271. It is recommended that students enrolled in Music 246 enroll in this course. (3 Lab.)
(Coordinating Board Academic Approval Number 5009045730)

MUS 289 Computerized Music Production II (2)
Prerequisites: Music 189 or demonstrated competence approved by the instructor. This course is an intensive study of computer-based music production. Areas covered include advanced sequencing, computer-based generation of musical scores, synchronization of sequencers with other media, and advanced synthesizer concepts. (2 Lec., 2 Lab.)

MUS 292 Arranging/Orchestration (3)
The knowledge of ranges and the ability to transpose for instruments, to write for voices, and to plan and execute an arrangement is developed. Standard copying techniques, chord voicing, large ensemble writing and combo writing, and use of strings (simulated by string synthesizer) are also included. (3 Lec.)

MUS 293 Independent Study (3)
This course is for advanced work in music and is designed to meet specific needs of the student. On approval of the instructor and division chairperson, the student prepares and executes a written contract (proposal for learning). Credit is given upon completion of all aspects of the contract. This course may be repeated for credit. (3 Lec.)

MUS 296 Recording Studio Practices (3)
Prerequisites: Music 197 and Music 198. The lecture portion of this course concentrates on the artistic and stylistic considerations of audio recording. The laboratory portion translates these considerations into class projects. Laboratory fee. (2 Lec., 3 Lab.)

MUS 297 Studio Production (3)
Prerequisite: Music 296. In this course students produce, engineer, mix, setup, and perform in actual recording sessions. Samples of portfolios may be acquired. Laboratory fee. (2 Lec., 3 Lab.)

MUS 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in Music or Instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning experiences each semester. The seminars consist of topics which include job relations, setting and writing job objectives, performance, and observing live performances. (1 Lec., 15 Lab.)

MUS 713 Cooperative Work Experience (3)

Prerequisites: Completion of Music 703. This advanced course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning experiences each semester. The seminars consist of topics which may include observing live performances, observing live recording sessions, equipment operating systems, inventory and stock categories, and pricing. (1 Lec., 15 Lab.)

NURSING

NUR 101 Basic Pharmacology (3)

Prerequisites: Minimum grade of "C" in Biology 120 or 221 and concurrent enrollment in Biology 121 or 222. Registered Nurses or Licensed Vocational Nurses may enroll for refresher purposes. This course will be a comprehensive study of pharmacologic agents utilized by nurses and other health care workers. The focus is on the overall classification and pharmacokinetic properties of that classification. Drugs affecting all body systems are included. (3 Lec.)

NUR 102 Introduction To Pathophysiology (3)

Prerequisites: Biology 120 and concurrent enrollment in Biology 121. This course will provide a basic introduction to pathophysiology of disease processes. The focus of the course will include a systems approach to the development of disease, abnormal physiological responses, clinical manifestations, and some treatment modalities. (3 Lec.)

NUR 144 Nursing I (8)

Prerequisites: Admission to the program and "C" grade or better in Biology 120 or 221, English 101 and MTH 139 or 101 equaling a grade point average of 2.5 or better. Concurrent enrollment in Biology 121 or 222 and Psychology 101. This basic nursing course will serve as a foundation on which four courses will build and expand. Topics include an introduction to nursing as a profession, the nursing process, communication, health teaching, and basic technical skills. Based on an integrated approach, concepts of health, illness, growth and development, basic human needs, the family, stress, pain, and loss are explored in all age groups. Selected clinical experiences will enable the student to begin to assess, analyze, plan, implement, and evaluate nursing care for all age groups. A system of measurements competency is a required component of the pharmacology introduction. Laboratory fee. (4 Lec., 12 Lab.)

NUR 146 Nursing II (9)

Prerequisites: Minimum grade of "C" in Nursing 144, and in all Semester I support courses. Concurrent enrollment in Biology 216 and Psychology 201. This course focuses on the application of the basic principles, concepts, and skills from Nursing 144. Included is medication administration and intravenous fluid therapy. Psychological and physiological stress is further explored with discussion of the nursing care of patients experiencing pregnancy, delivery, including care of the newborn, postpartum, surgery, abnormal cell proliferation, impaired nutrition, and maladaptive behavior in all age groups. Selected clinical experiences including an obstetric rotation continue to focus on the nursing process in caring for patients of all age groups. An application of pharmacology dosage and solution competency is a required component of this course. Laboratory fee. (5 Lec., 13 Lab.)

NUR 147 Nursing II A (5)

Prerequisites: Current Texas LVN license, admission to the Associate Degree Nursing Program, and "C" grade or better in Biology 120 or 221, English 101, and Math 139 or 101 equaling a grade point average of 2.5 or better. Additional prerequisites include Biology 121 or 222, 216, Psychology 101, 201 with a minimum grade of "C". Licensed Vocational Nurses will take this course in place of Nursing 144 and 146. This course will include assessment of the student's theoretical, attitudinal, and psychomotor skills. Content will focus on the change in role from LVN to RN, communication, application of the nursing process, and maintenance of homeostasis. Specific areas of emphasis include problems of fluid and electrolytes, inflammation/immune response, abnormal cell proliferation, nutrition, pregnancy, birth, the neonate, and psychosocial aspects. Upon successful completion of this course, the student will be granted 12 hours of equivalency for Nursing 144 and 146. Laboratory fee. (4 Lec., 3 Lab.)

NUR 201 Special Topics: Applied Management In Health Care Settings (3)

Prerequisite: Sophomore level in nursing. The focus of this course will be on management theory as applied to health care settings. Topics include: management theory, leadership characteristics, group dynamics, health care organizational structures, the planning process, change, budgeting, evaluation, staffing, and applied concepts. (3 Lec.)

NUR 202 Special Topics: Geriatric Care (3)

Prerequisite: Sophomore level in nursing. This course will focus on the special care needs of the older adult. Topics will include an overview of the physical, psychological, and social changes associated with aging, geriatric assessment skills, and health care intervention in institutional and non-institutional settings. (3 Lec.)

NUR 203 Practicum: Care Of The Psychiatric Patient (3)

Prerequisite: Nursing 244 or Registered Nurse. This elective practicum will focus on increasing clinical skills in applying the nursing process to the client in the psychiatric setting. Seminar topics will include assessment skills, treatment modalities, and the evaluation for effectiveness of prescribed therapeutic strategies. Health maintenance, discharge planning, and the role of the registered nurse on the mental health care team will also be included. (1 Lec., 6 Lab.)

NUR 204 Specific Topics: Home Health Care Nursing (3)

Prerequisite: Sophomore level or Registered Nurse. This course will assist the nurse in making the transition from hospital-based nursing to nursing practice in the home health care setting. Content of the course includes changes in the health care setting; coping with change; and management, supervision, and communication skills; as well as special problems found in the home setting. Documentation of care and legal issues of nursing care in the home are emphasized. (3 Lec.)

NUR 245 Nursing III (3)

Prerequisites: August admission: minimum grade of "C" in Nursing 146, and in all required Semester II support courses. January admission: minimum grade of "C" in Nursing 250, and in all required Semester III support courses. This course emphasizes the application of the nursing process to the care of patients experiencing crisis, and patients exhibiting severely impaired behavior. Selected clinical experiences include a psychiatric rotation. Nursing 250 precedes Nursing 245 in the January admission curriculum plan. Laboratory fee. (6 Lec., 10 Lab.)

NUR 250 Nursing IV (9)

Prerequisites: August admission: minimum grade of "C" in Nursing 245. January admission: minimum grade of "C" in Nursing 146. Concurrent enrollment in Speech Communication 101 and a humanities elective. This course emphasizes a conceptual approach to care of patients in all age groups with complex health care needs pertaining to immobility, problems of moderately impaired oxygen exchange, immunological/inflammatory response, and elimination. Selected clinical experiences focus on application of the nursing process with emphasis on priority setting. A pharmacology application competency is a required component of this course. Laboratory fee. (5 Lec., 12 Lab.)

NUR 258 Nursing V-Care Of Patients With Complex Illnesses (9)

Prerequisites: August admission: Minimum grade of "C" in Nursing 250. January admission: Minimum grade of "C" in Nursing 245. Concurrent enrollment in Nursing 259 and an approved elective course. This course emphasizes conceptual approaches to the care of patients with complex illnesses which often involve multiple body systems. Problems of sensory deprivation and overload, severely impaired oxygen exchange, and severe fluid and electrolyte imbalance are addressed. Weekly clinical experiences focus on the management of care for these patients, using the nursing process, and emphasizing decision making and priority setting. A supervised clinical practicum provides an opportunity for students to apply knowledge gained from this course at the end of the semester. A pharmacology application competency is a required component of the course. Laboratory fee required. (4 Lec., 15 Lab.)

NUR 259 Nursing V - A Role Transition (1)

Prerequisites: Minimum grade of "C" in Nursing 250. Concurrent enrollment in Nursing 258 and an approved elective course. This seminar focuses on role transition and current issues affecting the practice of nursing. Topics will include decision making in nursing, principles of management, work organization, processes of communication and change theory. (1 Lec.)

NUTRITION

NTR 101 Principles of Nutrition (3)

(Common Course Number HECO 1322)

This is an introduction to human nutrition. Topics will include classes, sources, and function of nutrients, digestion and absorption, and metabolism with applications to normal and therapeutic nutritional needs. (3 Lec.)

(Coordinating Board Academic Approval Number 1905025133)

OFFICE TECHNOLOGY

OFC 103 Speedwriting Theory (4)

Prerequisites: Credit or concurrent enrollment in Office Technology 172 or demonstrated competence approved by the instructor. 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. Laboratory fee. (3 Lec., 2 Lab.)

OFC 106 Speedwriting Dictation And Transcription (4)

Prerequisites: Office Technology 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 Technology (1)

Prerequisites: Demonstrated competence approved by the instructor. This course emphasizes current topics of interest in office technology fields. Realistic solutions to problems relevant to the needs of industry are presented. This course may be repeated for credit with different emphasis up to six hours. (1 Lec.)

OFC 144 Contemporary Topics In Office Technology (2)

Prerequisites: Will vary based on topics covered and will be annotated in each semester's class schedule. Current developments in the rapidly changing field of office technology are studied. This course may be repeated for credit when topics vary. (2 Lec.)

OFC 145 Contemporary Topics In Office Technology (3)

Prerequisites: Will vary based on topics covered and will be annotated in each semester's class schedule. Current developments in the rapidly changing field of office technology are studied. This course may be repeated for credit when topics vary. (3 Lec.)

OFC 150 Automated Filing Procedures (3)

Prerequisite: Office Technology 172 or demonstrated competence approved by the instructor. 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)

Prerequisite: Credit or concurrent enrollment in Office Technology 172 or demonstrated competence approved by the instructor. 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 electronic calculators. Emphasis is on developing the touch system for both speed and accuracy. Business math and business applications are included. Laboratory fee. (3 Lec.)

OFC 162 Office Procedures (3)

Prerequisites: Office Technology 172 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 Technology 159 and Office Technology 172 or demonstrated competence approved by the instructor. 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 Technology 187, 188, and 189. Laboratory fee. (3 Lec., 2 Lab.)

OFC 167 Legal Terminology And Transcription (3)

Prerequisites: Office Technology 173 and Office Technology 185 or concurrent enrollment or demonstrated competence approved by the instructor. 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. 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 Technology 172 is equivalent to Office Technology 176, 177, and 178. Laboratory fee. (2 Lec., 3 Lab.)

OFC 173 Intermediate Typing (3)

Prerequisites: Office Technology 172 or demonstrated competence approved by the instructor. 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 179 Office Information Systems Concepts (2)

Prerequisite: Office Technology 172. This course introduces information/word processing and describes its effect on traditional office operations. Basic information/word processing principles, concepts, terminology and advantages of word processing systems are introduced. This course does not include the operation of a wordprocessor or microcomputer. (2 Lec.)

OFC 182 Introduction To Word Processing (1)

Prerequisites: Office Technology 172 or demonstrated competence approved by the instructor. This course introduces the fundamental techniques required in the operation of word processing software. Basic concepts of electronic storage and retrieval involved in creating, printing, centering, and revising documents are introduced. May be repeated for credit using different software. 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)

Prerequisites: Office Technology 173 or concurrent enrollment. 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 190 Principles Of Word Processing (4)

Prerequisites: Office Technology 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 Technology 190 is equivalent to Office Technology 179, 182, and 185. Laboratory fee. (3 Lec., 3 Lab.)

OFC 192 Office Machines I (1)

Business mathematical skills needed to operate office calculators are reviewed. Speed and accuracy skills using ten-key touch are developed. Laboratory fee. (1 Lec.)

OFC 231 Business Communications (3)

Prerequisites: Office Technology 172 and English 101 or demonstrated competence approved by the instructor. 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, proposals, and reports is made. (3 Lec.)

OFC 266 Advanced Shorthand (4)

Prerequisites: Office Technology 166 and Office Technology 173 or demonstrated competence approved by the instructor. 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)

Prerequisite: Completion of, or concurrent enrollment in, Office Technology 167, or demonstrated competence approved by the instructor. 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 282 Word Processing Applications (1)

Prerequisites: Office Technology 182 or demonstrated competence approved by the instructor. This course is designed for students who have a basic knowledge of word processing. Advanced word processing concepts and machine functions are developed. Special emphasis is placed on producing mailable documents. May be repeated for credit using different emphasis. Laboratory fee. (2 Lab.)

OFC 283 Specialized Software I (1)

Specialized applications are performed using automated equipment which the student has previously mastered. Applications may include word processing, graphics, math functions, spreadsheets, databases, desk top publishing, and the use of other software packages. Microcomputers will be used in this course. May be repeated for credit using different emphasis/equipment. Laboratory fee. (2 Lab.)

OFC 284 Specialized Software II (1)

Specialized applications are performed using automated equipment that the student has previously mastered. More advanced applications may include graphics, math functions, spreadsheets, databases, and desk top publishing. This course may be repeated for credit using different emphasis/equipment. (2 Lab.)

OFC 285 Applied Machine Transcription (1)

Prerequisites: Office Technology 173 or 190 and Office Technology 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. Laboratory fee. (1 Lec., 1 Lab.)

OFC 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Office Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Students must complete three objectives and work a minimum of 15 hours per week for a total of three credit hours. This seminar consists of orientation, setting/writing job objectives, interpersonal skills, career interest/aptitude test and evaluation, time management, career planning, and exit seminar. (1 Lec., 15 Lab.)

OFC 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Office Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must complete four objectives and work a minimum of 20 hours per week for a total of four credit hours. This seminar consists of orientation, setting/writing job objectives, interpersonal skills, career interest/aptitude test and evaluation, time management, career planning, and exit seminar. (1 Lec., 20 Lab.)

OFC 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Office Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. Students must complete three objectives and work a minimum of 15 hours per week for a total of three credit hours. This seminar consists of orientation, setting/writing job objectives, stress management, Certified Professional Secretary, communication skills, job search, professional image, and exit seminar. (1 Lec., 15 Lab.)

OFC 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Office Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Students must complete four objectives and work a minimum of 20 hours per week for a total of four credit hours. This seminar consists of orientation, setting/writing job objectives, stress management, Certified Professional Secretary, communication skills, job search, professional image, and exit seminar. (1 Lec., 20 Lab.)

OFC 803 Cooperative Work Experience (3)

Prerequisites: Completion of previous Office Technology 703 or 704 and 713 or 714. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Students must complete three objectives and work a minimum of 15 hours per week for a total of three credit hours. This seminar consists of orientation, setting/writing job objectives, and independent study of business topics. (1 Lec., 15 Lab.)

OFC 804 Cooperative Work Experience (4)

Prerequisites: Completion of previous Office Technology 703 or 704 and 713 or 714. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. Students must complete four objectives and work a minimum of 20 hours per week for a total of four credit hours. This seminar consists of orientation, setting/writing job objectives, and independent study of business topics. (1 Lec., 20 Lab.)

OUTBOARD ENGINE**OE 144 Outboard Engine Service Principles (4)**

The principles of operation and failure analysis of two- and four-cycle engines are covered. The principles of basic electricity as applied to outboard engines are also covered. Laboratory fee. (120 Contact Hours)

OE 145 Outboard Engine Tune-Up (4)

The tune-up procedures for outboard engines including ignition service, carburetion theory and service, and complete adjustment procedures are included in this course. Laboratory fee. (120 Contact Hours)

OE 146 Outboard Engine Powerhead Overhaul (4)

This course includes overhaul procedures for outboard powerheads. Laboratory fee. (120 Contact Hours)

OE 147 Outboard Engine Lower Unit Overhaul (4)

The theory of operation, service, and overhaul procedures for manual, hydraulic, and electric shift lower units are covered. Laboratory fee. (120 Contact Hours)

OE 148 Outboard Engine Electrical Systems (4)

The theory of operation and trouble-shooting procedures for outboard engine ignition and charging systems and accessories are covered in this course. Laboratory fee. (120 Contact Hours)

OE 723 Cooperative Work Experience (3)

Prerequisite: Completion of two courses in the Outboard Marine Engine Mechanics program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, employer expectations of employees and service repair liability. (1 Lec., 15 Lab.)

OE 724 Cooperative Work Experience (4)

Prerequisite: Completion of two courses in the Outboard Marine Engine Mechanics program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, employer expectations of employees and service repair liability. (1 Lec., 20 Lab.)

PATTERN DESIGN**PDD 151 Pattern Drafting I (3)**

The principles of drafting and draping basic patterns for collars, skirts, bodices, and sleeves are presented. Cutting out garments is also included. Laboratory fee. (2 Lec., 4 Lab.)

PDD 152 Pattern Drafting II (3)

Prerequisite: Pattern Design 151. Drafting and draping basic patterns for separates and dresses are covered. Laboratory fee. (2 Lec., 4 Lab.)

PDD 153 Pattern Drafting III (3)

Prerequisite: Pattern Design 152. Techniques are developed for drafting and draping patterns for the apparel industry. Laboratory fee. (2 Lec., 4 Lab.)

PDD 254 Pattern Drafting IV (3)

Prerequisite: Pattern Design 153. Advanced techniques are developed for drafting and draping patterns for misses and junior sizes. The student will be introduced to the computer to draft patterns. Laboratory fee. (2 Lec., 4 Lab.)

PDD 255 Pattern Drafting V (3)

Prerequisite: Pattern Design 254. Techniques are developed for drafting and draping patterns for junior and misses daytime and dressy dresses. The student will complete patterns on the computer. Laboratory fee. (2 Lec., 4 Lab.)

PDD 256 Pattern Drafting VI (3)

Prerequisite: Pattern Design 255. Techniques are developed for drafting and draping patterns for misses and junior sportswear. Computer pattern design will be explored. Laboratory fee. (2 Lec., 4 Lab.)

PDD 257 Pattern Drafting VII (3)

Prerequisite: Pattern Design 256. Techniques are developed for drafting and draping patterns for misses and junior tailored garments. Advanced computer pattern design will be explored. Laboratory fee. (2 Lec., 4 Lab.)

PDD 702 Cooperative Work Experience (2)

Prerequisite: Completion of one Pattern Design course or instructor approval. This course provides practical work experience with a Dallas manufacturer or related apparel business. Areas of specialization are sample cutting and pattern making - areas of relationship pertaining to fashion. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experience. Seminar sessions each semester consist of resumes, changing jobs, films on fashion, and building self-esteem. (1 Lec., 10 Lab.)

PDD 703 Cooperative Work Experience (3)

Prerequisite: Completion of one Pattern Design course or instructor approval. This course provides practical work experience with a Dallas manufacturer or related apparel business. Areas of specialization are sample cutting and pattern making - areas of relationship pertaining to fashion. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experience. Seminar sessions each semester consist of resumes, changing jobs, films on fashions, and building self-esteem. (1 Lec., 15 lab.)

PDD 704 Cooperative Work Experience (4)

Prerequisite: Completion of one Pattern Design course or instructor approval. This course provides practical work experience with a Dallas manufacturer or related apparel business. Areas of specialization are sample cutting and pattern making - areas of relationship pertaining to fashion. The student, employer and instructor develop a written competency-based learning plan with varied learning objectives and work experience. Seminar sessions each semester consist of resumes, changing jobs, films on fashions, and building self-esteem. (1 Lec., 20 Lab.)

PHILOSOPHY**PHI 101 Introduction To Philosophy (3)**

(Common Course Number PHIL 1301)

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.)

(Coordinating Board Academic Approval Number 3801015135)

PHI 103 Critical Thinking (3)

This course is designed to improve students' critical thinking ability. Students will both analyze and construct arguments. Elementary deductive forms, common fallacies, and inductive reasoning are considered. (3 Lec.)
(Coordinating Board Academic Approval Number 3801015235)

PHI 105 Logic (3)

(Common Course Number PHIL 2303)

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.)
(Coordinating Board Academic Approval Number 3801015235)

PHI 202 Introduction To Social And Political Philosophy (3)

(Common Course Number PHIL 2307)

The relationships of philosophical ideas to the community are presented. Emphasis is on concepts of natural rights, justice, education, freedom, and responsibility. (3 Lec.)
(Coordinating Board Academic Approval Number 3801015535)

PHI 203 Ethics (3)

(Common Course Number PHIL 2306)

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.)
(Coordinating Board Academic Approval Number 3801015335)

PHI 207 History Of Ancient Philosophy (3)

(Common Course Number PHIL 2316)

The history of philosophy from pre-Socratic times to the Renaissance is examined. Connections are made between the pre-Socratics, Plato, and Aristotle; Stoicism, Epicureanism, and Scholasticism are considered. (3 Lec.)
(Coordinating Board Academic Approval Number 3801015535)

PHI 208 History Of Modern Philosophy (3)

(Common Course Number PHIL 2317)

The history of philosophy from the Renaissance through the 19th century is examined. Emphasis is on continental rationalism, British empiricism, Kantian metaphysics and epistemology, and the Hegelian system as it relates to 20th century philosophies. The historical relationship between these schools of thought is explored. (3 Lec.)
(Coordinating Board Academic Approval Number 3801015535)

PHOTOGRAPHY**PHO 110 Introduction To Photography And Photojournalism (3)**

Photography and photojournalism 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 introduced. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 0904015526)

PHO 111 Advanced Photography And Photojournalism (3)

Prerequisite: Photography 110 or demonstrated competence approved by the instructor. Techniques learned in Photography 110 are refined. Emphasis is on photographic communication. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 0904015526)

PHO 115 Special Photographic Topics and Problems (Non-Lab Related) (3)

This course of study addresses special photographic topics or problems which do not require lab instruction or use of lab facilities. Topics may include special interest areas such as: history of photography, photographic criticism, history of film making, looking at photographic collections, and color slide photography. The course will be narrow in scope to provide for in-depth study of the particular topics and may employ field trips and visiting instructors with specialized expertise. This course may be repeated for credit. (3 Lec.)
(Coordinating Board Academic Approval Number 5006055230)

PHO 122 Commercial Photography I (3)

Prerequisites: Photography 110 and 111 or demonstrated competence approved by the instructor. Commercial or contract photography is studied. Field, studio, and darkroom experiences for various kinds of photography are discussed. Social, portrait, studio, fashion, publicity, landscape, and product photography, as well as portfolio development, are included. The use of natural and artificial lighting is covered. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5006055130)

PHO 123 Commercial Photography II (3)

Prerequisites: Photography 110 and 111 or demonstrated competence approved by the instructor. This course is a continuation of Photography 122. Publicity, architectural, interior, and advertising photography are included. The latest equipment, papers, films, and techniques are explored. Exchanges may be made with sample clients, employers, studios, and agencies. Laboratory fee. (2 Lec., 4 Lab.)
(Coordinating Board Academic Approval Number 5006055230)

PHO 207 Photography For Publications (3)

Prerequisites: Photography 110 and 111 or demonstrated competence approved by the instructor. This course is designed for the student who is interested in journalistic editing, publications photography, and graphic arts procedures. It encourages skills in all three areas and prepares the student for a broad job market that includes photojournalism, printing, editing, composing, and general copy preparation. Students who enroll in this course should have a background in journalism, photography, and graphic arts and be of sophomore standing. Laboratory fee. (2 Lec., 4 Lab.)

PHO 215 Special Photographic Topics And Problems (3)

Prerequisites: Photography 110 and 111 or demonstrated competence approved by the instructor. This course of study addresses special photographic topics or problems that may result from technological advances and particular student and/or instructor interests and/or expertise. Topics may include special interest areas such as architectural, landscape, wedding, environmental portraiture and audiovisual slide-with-sound productions. The course will be narrow in scope to provide for in-depth study of the particular topic and may employ visiting instructors with specialized expertise. This course may be repeated for credit. (2 Lec., 4 Lab.)

(Coordinating Board Academic Approval Number 5006055230)

PHYSICAL EDUCATION

PEH 100 Lifetime Sports Activities (1)

(Common Course Number PHED 1100)

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. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 101 Health For Today (3)

(Common Course Number PHED 1304)

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. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 5103015128)

PEH 103 Beginning Casting And Angling (1)

(Common Course Number PHED 1101)

This course will include the fundamentals of fly casting, bait casting, spinning and spin casting. This course covers basic knowledge and understanding of angling techniques and concepts, and will include several tackle crafts. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 104 Beginning Soccer (1)

(Common Course Number PHED 1102)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 105 Shooting and Firearm Safety (1)

(Common Course Number PHED 1103)

Course content includes fundamentals of shooting, gun safety and principles of reloading. This course includes personal safety associated with hunting and sport shooting. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 109 Outdoor Recreation (3)

(Common Course Number PHED 1336)

Outdoor recreation and organized camping are studied. Both the development of these activities and present trends are covered. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 3101015128)

PEH 110 Community Recreation (3)

(Common Course Number PHED 1337)

This course is primarily for students majoring or minoring in health, physical education, or recreation. The principles, organization, and function of recreation in American society are covered. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 3101015128)

PEH 112 Beginning Softball (1)

(Common Course Number PHED 1104)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 113 Beginning Racquetball (1)

(Common Course Number PHED 1105)

Basic racquetball skills, rules and strategies are taught and class tournaments are conducted. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 114 Beginning Badminton (1)

(Common Course Number PHED 1106)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 115 Physical Fitness (1)

(Common Course Number PHED 1164)

Students are introduced to health related concepts and activities for the purpose of gaining 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, muscular development, flexibility, agility exercises, weight training and body composition. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3105015128)

PEH 116 Intramural Athletics (1)

(Common Course Number PHED 1107)

Intramural competition in a variety of activities is offered for men and women. Individual and team competition are offered. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 117 Beginning Archery (1)

(Common Course Number PHED 1108)

The beginning level skills of target and field shooting and bow hunting are emphasized. History, rules of competition, preparation and care of equipment and safety are included. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 118 Beginning Golf (1)

(Common Course Number PHED 1109)

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. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 119 Beginning Tennis (1)

(Common Course Number PHED 1110)

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. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 120 Beginning Bowling (1)

(Common Course Number PHED 1111)

Basic bowling skills at the beginner level as well as rules, strategies, safety, scoring and competitive activities are emphasized. All classes are conducted at an off-campus bowling lane. Lane fee. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 121 Folk Dance (1)

(Common Course Number PHED 1112)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 122 Beginning Gymnastics (1)

(Common Course Number PHED 1113)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 123 Beginning Swimming (1)

(Common Course Number PHED 1114)

This course is designed to teach a non-swimmer or a shallow water swimmer to become a safe and efficient deep water swimmer. After the development of sufficient skills to perform a modified crawl stroke, the elementary back stroke, survival floating, jumping into deep water, leveling off and changing directions, swimmers will be able to swim in deep water. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 124 Social Dance (1)

(Common Course Number PHED 1115)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 125 Conditioning Exercise (1)

(Common Course Number PHED 1116)

This course focuses on understanding exercise and its effect on the body. Cardiovascular endurance, muscular strength, endurance and flexibility are improved through a variety of conditioning activities. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 127 Beginning Basketball And Volleyball (1)

(Common Course Number PHED 1117)

Basic basketball and volleyball skills are taught. Rules, game strategies and competitive activities are included. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 129 Modern Dance (1)

(Common Course Number PHED 1118)

This beginning course is designed to emphasize basic dance technique, body alignment and placement, floor work, locomotor patterns, and creative movement. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 131 Weight Training And Conditioning (1)

(Common Course Number PHED 1119)

Instruction in weight training and conditioning techniques are stressed. Emphasis is placed on muscular strength and endurance. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 132 Self-Defense (1)

(Common Course Number PHED 1120)

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. Uniform required. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 133 Jogging for Fitness (1)

(Common Course Number PHED 1121)

Development and improvement of physical fitness through jogging is emphasized. Fitness concepts and jogging skills will be introduced. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 134 Outdoor Education (1)

(Common Course Number PHED 1122)

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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 135 Walking For Fitness (1)

(Common Course Number PHED 1123)

This course is designed for the student who desires cardiovascular fitness by means of a low impact method. Maximum physical fitness is achieved by vigorous walking. The heart rate is elevated to the appropriate target zone for peak conditioning. An extensive warm-up and cool down increases joint and muscle flexibility. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 137 Aerobic Dance (1)

(Common Course Number PHED 1124)

This course emphasizes the development of cardiovascular endurance by utilizing choreographed routines which may combine basic dance patterns with walking, jogging, jumping, etc. Individual fitness levels are accommodated by the intensity of the workout. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 142 Divemaster (2)

Prerequisite: Physical Education 228 or advanced certification from any of the national certifying organizations. This course is designed for the advanced diver who seeks additional training as an instructional assistant responsible for the organization, teaching and safety of scuba divers. Students who successfully complete this course will receive divemaster certification. This course may be repeated for credit. Laboratory fee. (1 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 3601085328)

PEH 143 Aquatic Fitness (1)

(Common Course Number PHED 1125)

This course is designed to promote fitness through the use of water-related activities compatible with a pool environment. Emphasis is placed on water resistant exercises, lap swimming utilizing various kicks and strokes, relays, and a variety of aquatic games. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 144 Introduction To Physical Education (3)

(Common Course Number PHED 1301)

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. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 3105015228)

PEH 145 Cycling (1)

(Common Course Number PHED 1126)

Development of cycling skills and improvement of physical fitness through cycling are emphasized. Fitness concepts, riding technique, safety, routine maintenance and repair of the cycle are fundamental topics of this course. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 146 Triathlon Fitness (1)

(Common Course Number PHED 1127)

This course includes an individualized program of walking, running, cycling, swimming, and weight training. From these activities, the student and instructor will design a fitness program to improve total body fitness, strength, endurance and self-image. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 147 Sports Officiating I (3)

(Common Course Number PHED 1308)

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. This course does not satisfy the physical education activity course requirement. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1202045128)

PEH 148 Sports Officiating II (3)

(Common Course Number PHED 1309)

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. This course does not satisfy the physical education activity course requirement. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1202045128)

PEH 149 Canoeing/Kayaking (1)

(Common Course Number PHED 1128)

This course is designed to teach the students knowledge and appreciation of basic white water canoeing/kayaking skills so they can actively engage in these activities throughout their lives. A weekend river trip is included in this course. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 150 Backpacking/Rock Climbing (1)

(Common Course Number PHED 1129)

This course is designed to teach the students basic skills, knowledge and appreciation of backpacking and rock climbing to the extent that they can actively engage in these activities throughout their lives. A weekend backpacking trip is included in the course. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 200 Lifetime Sports Activities II (1)

(Common Course Number PHED 1130)

Prerequisite: Associate Physical Education 100 level or demonstrated competence approved by the instructor. Intermediate and intermediate/advanced skills in a variety of lifetime sports are presented. Students participate in a selected sport. Physical Education 200 may be repeated for credit when students select different activities. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 204 Intermediate Soccer (1)

(Common Course Number PHED 1131)

Prerequisite: Physical Education 104 or demonstrated competence approved by the instructor. Basic skills and techniques are refined beyond the beginner level. Analysis and practice of strategies, safety, offensive and defensive patterns of play and competitive activities are covered. Course emphasis is placed on the development and preparation for participation on an intercollegiate team. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 212 Intermediate Softball (1)

(Common Course Number PHED 1132)

Prerequisite: Physical Education 112 or demonstrated competence approved by the instructor. Emphasis is placed on game strategy, base coaching, preparing a lineup, conducting drills, and performance on hitting, catching, and throwing. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 213 Intermediate Racquetball (1)

(Common Course Number PHED 1133)

Prerequisite: Physical Education 113 or demonstrated competence approved by the instructor. This activity course is designed for students seeking to advance their racquetball skill level. The course content covers advanced shot execution, strategy, and the doubles game. Emphasis is placed on improved skill and strategy. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 215 Intermediate Physical Fitness (1)

(Common Course Number PHED 1134)

Prerequisite: Demonstrated competence approved by the instructor. Basic skills and techniques of fitness-related activities are developed beyond the beginner level. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 217 Intermediate Archery (1)

(Common Course Number PHED 1135)

Prerequisite: Demonstrated competence approved by the instructor. Course content includes refinement for basic archery skills and competitive target shooting and field archery. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 218 Intermediate Golf (1)

(Common Course Number PHED 1136)

Prerequisite: Demonstrated competence approved by the instructor. Basic skills and techniques are refined beyond the beginner level. Analysis and practice of the golf swing, swing theory and methods, strategy, and actual golf course playing are emphasized. Equipment is furnished. Green fees. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 219 Intermediate Tennis (1)

(Common Course Number PHED 1137)

Prerequisite: Demonstrated competence approved by the instructor. Emphasis is placed on refinement of basic skills and specialty shots. Competitive activities in singles, doubles and mixed doubles will be included. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 220 Intermediate Bowling (1)

(Common Course Number PHED 1150)

This course is designed for students seeking improvement in the lifetime sport of bowling. The course covers a review of history, etiquette, care and selection of equipment, rules and scoring. Additional information will be provided on handicapping, league play, variation of grips, spot bowling and alley textures. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 222 Intermediate Gymnastics (1)

(Common Course Number PHED 1139)

Prerequisite: Demonstrated competence approved by the instructor. Basic tumbling and the all-around events for men and women 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.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 223 Intermediate Swimming (1)

(Common Course Number PHED 1140)

Prerequisite: Demonstrated competence approved by the instructor. The correct performance of the crawl, elementary back stroke, side and breast strokes will be emphasized. Some speed and endurance swimming will be required. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 225 Scuba Diving (2)

Prerequisite: Demonstrated competence approved by the instructor. This course includes instruction in the proper use of equipment, safety, physiology and open water diving. Students completing course requirements receive certification through one of several major accredited associations. Equipment rental fee. Laboratory fee. (1 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 3601085328)

PEH 226 Advanced Life Saving (1)

(Common Course Number PHED 2155)

Prerequisite: Demonstrated competence approved by the instructor. Successful completion of this course qualifies students for the Red Cross Life Guarding Certificate. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085328)

PEH 228 Advanced Open Water Scuba (2)

Prerequisite: Physical Education 225 or appropriate certifying agency entry level certificate or 10 log book hours. Instruction will include the introductory knowledge and skill development in the open water environment for the student to participate in underwater investigation, deep diving, search and light salvage, and limited visibility/night diving. Safety, special equipment, dive planning and dive buddy procedures will be covered. Upon successful completion of the course, the student will receive advanced open water certification through a qualified certifying agency. Laboratory fee. (1 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 3601085328)

PEH 231 Intermediate Weight Training (1)

(Common Course Number PHED 1141)

Prerequisite: Demonstrated competence approved by the instructor. Skills and instruction in weight training techniques are developed beyond the beginner level. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 232 Intermediate Self-Defense (1)

(Common Course Number PHED 1142)

Prerequisite: Demonstrated competence approved by the instructor. Students will be introduced to intermediate forms of defense and combinations of self defense methods. Emphasis is on practical application of self defense movements. Uniform required. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 233 Intermediate Jogging (1)

(Common Course Number PHED 1143)

Prerequisite: Demonstrated competence approved by the instructor. Improvement of physical fitness through jogging is developed beyond the beginner stage. A higher level of fitness is expected. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 234 Water Safety Instructor (2)

(Common Course Number PHED 2255)

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.)

(Coordinating Board Academic Approval Number 3601085328)

PEH 235 Walking For Physical Fitness (1)

(Common Course Number PHED 1144)

Prerequisite: Demonstrated competence approved by the instructor. Students participate in a low impact exercise walking program beyond the beginning level. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 236 The Coaching Of Football And Basketball (3)

(Common Course Number PHED 1321)

The skills and techniques of coaching football and basketball are presented. Included are the history, theories, philosophies, rules, terminology, and finer points of the sports. Emphasis is on coaching techniques. This course does not satisfy the physical education activity course requirement. (2 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 3105085128)

PEH 237 Intermediate Aerobic Dance (1)

(Common Course Number PHED 1145)

Prerequisite: Demonstrated competence approved by the instructor. This course emphasizes the development of cardiovascular endurance through a combination of walking, jogging, jumping, etc. Individual fitness levels are developed beyond the beginner level. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 239 Intermediate Basketball (1)

(Common Course Number PHED 1146)

Prerequisite: Demonstrated competence approved by the instructor. Basic skills and techniques are refined beyond the beginner level. Analysis and practice of shooting, passing, dribbling, team play, strategies, and competitive play covered. Course emphasis is placed on the development and preparation for participation on an intercollegiate team. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 240 Intermediate Volleyball (1)

(Common Course Number PHED 1147)

Prerequisite: Demonstrated competence approved by the instructor. Basic skills and techniques are refined beyond the beginner level. Analysis and practice of the forearm pass, setting, spiking, serving, team play, strategies, and competitive play are covered. Course emphasis is placed on the development and preparation for participation on an intercollegiate team. Equipment is furnished. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 241 Intermediate Baseball (1)

(Common Course Number PHED 1148)

Prerequisite: Demonstrated competence approved by the instructor. Basic skills and techniques are refined beyond the beginner level. Analysis and practice of hitting, fielding, pitching, team play, and competitive play are emphasized. Baseball history and interpretation of the rules are also covered. Course emphasis is placed on the development and preparation for participation on an intercollegiate team. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 245 Intermediate Cycling (1)

(Common Course Number PHED 1149)

Prerequisite: Physical Education 145 or demonstrated competence approved by the instructor. Improvement of physical fitness through cycling is developed beyond the beginner stage. A higher level of fitness is expected. This course may be repeated for credit. Laboratory fee. (3 Lab.)

(Coordinating Board Academic Approval Number 3601085128)

PEH 257 Advanced First Aid And Emergency Care (3)

(Common Course Number PHED 1306)

This course covers the theory and practice in advanced first aid and emergency care. Various aspects of safety education also are included. The course content has been selected from nationally recognized organizations in safety education and first aid. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 5103015328)

PHYSICAL FITNESS TECHNOLOGY**PFT 101 Exercise Science (3)**

This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical fitness. The emphasis is on physiological responses and adaptations to exercise. Basic elements of kinesiology, biomechanics, and motor learning are addressed. An introduction to the physical fitness industry is included. (3 Lec.)

PFT 120 Fitness And Exercise Testing I (4)

Techniques for conducting physical fitness assessments are studied. Tests of cardio-respiratory fitness, muscular strength and endurance, joint flexibility, body composition, and pulmonary capacity are included. The course includes an introduction to electrocardiography. Safety guidelines and precautions are emphasized. Equipment use and maintenance are covered. (3 Lec., 3 Lab.)

PFT 130 Basic Nutrition (3)

This survey course presents an overview of essential food nutrients. Methods for evaluating nutritional claims and guidelines for establishing nutritionally sound diets are covered. The concepts of caloric intake and energy expenditure in relationship to exercise are explored. Personal computer programs for nutritional analysis and nutritional counseling are introduced. (3 Lec.)

PFT 140 Physical Fitness Theory And Instruction (4)

Prerequisite: Physical Fitness Technology 120 or demonstrated competence approved by the instructor. Five health-related components of physical fitness are studied: cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, and body composition. The theoretical bases underlying physical fitness and instructional techniques for fitness development are covered. Methods for leading an exercise session, including recruitment, design, instruction, and evaluation are studied. Safety and injury prevention are emphasized. Equipment use and maintenance are covered. (3 Lec., 3 Lab.)

PFT 200 Instruction In Lifestyle Change (3)

Health risk appraisals and their application to lifestyle change are covered. The components of weight control, smoking cessation, and stress management programs and the principles of exercise adherence are studied. Techniques in behavior modification, motivation, teaching, and counseling are addressed, and behavior change as lifestyle change is emphasized. The use of personal computer and audiovisual programs for health risk appraisal and lifestyle change instruction is included. (2 Lec., 3 Lab.)

PFT 212 Exercise Programming (3)

The scheduling and implementation of physical fitness classes, recreational activities, and competitive events are studied. Non-exercise programming and programming for special populations are also included. The design of safe, enjoyable activities is emphasized. (3 Lec.)

PFT 220 Fitness And Exercise Testing II (4)

Prerequisite: PFT 120 or demonstrated competence approved by the instructor. This is an advanced course in graded exercise testing. Various exercise testing protocols for determining cardiorespiratory fitness are covered. Basic electrocardiography is studied, including abnormalities that would prompt limitation or termination of an exercise tolerance test. Methods for prescribing exercise programs based upon exercise test results are also studied. (3 Lec., 3 Lab.)

PFT 230 Prevention And Care Of Exercise Injury (3)

Prerequisite: Physical Education 257, current Advanced First Aid and CPR Certification, or demonstrated competence approved by the instructor. Methods for the injury-prevention design of the exercise setting and exercise program are covered in this course. The use of physical conditioning techniques to prevent injury, and current exercise fads and myths that promote injury are explored. Methods for injury recognition and evaluation, the on-site care of exercise injuries, and emergency procedures are presented. (2 Lec., 3 Lab.)

PFT 240 Practical Aspects Of The Fitness Industry (3)

This course is a survey of the practical aspects of the physical fitness industry. Topics covered include equipment cost analysis, program marketing, legal issues, policy formation, budgetary planning, and time management. A variety of computer applications and current industry trends are also covered. (3 Lec.)

PFT 250 Psychosocial Aspects Of Sport And Exercise (3)

The social and cultural influences on exercise initiation and exercise adherence are explored. Emphasis is given to the interrelatedness of mental skills and physical skills and the value of sport and exercise for overall well-being. Techniques for maximizing performance are included. (3 Lec.)

PFT 281 Selected Topics In Physical Fitness Technology (1)

This is an elective course designed to deal with specific topics in physical fitness technology. As the topics change, this course may be repeated twice for credit. (1 Lec.)

PFT 283 Selected Topics In Physical Fitness Technology (3)

This is an elective course designed to deal with specific topics in physical fitness technology. As the topics change, this course may be repeated once for credit. (3 Lec.)

PFT 290 Practical Application In Physical Fitness Technology I (1)

Prerequisites: PFT 140. The student serves an instructional assistant in a physical education activity class. Course objectives are individualized to the student. The student assists in a class from one of the three activity course clusters: Aerobic Activities, Strength Activities, Recreational/Sport Activities. (3 Lab.)

PFT 291 Practical Application In Physical Fitness Technology II (1)

Prerequisite: PFT 290. The student serves as an instructional assistant in a physical education activity class. Course objectives are individualized to the student. The class in which the student assists must be from an activity course cluster (Aerobic Activities, Strength Activities, Recreational/Sport Activities) different from the student's PFT 290 assignment. (3 Lab.)

PFT 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in Physical Fitness Technology or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, team building, problem solving, goal setting, and conflict resolution. (1 Lec., 15 Lab.)

PFT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in Physical Fitness Technology or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, team building, problem solving, goal setting, and conflict resolution. (1 Lec., 20 Lab.)

PFT 713 Cooperative Work Experience (3)

Prerequisite: Completion of Physical Fitness Technology 703 or 704 or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, time management, stress management, chemical dependency, and personal wellness. (1 Lec., 15 Lab.)

PFT 714 Cooperative Work Experience (4)

Prerequisite: Completion of Physical Fitness Technology 703 or 704 or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, time management, stress management, chemical dependency, and personal wellness. (1 Lec., 20 Lab.)

PFT 803 Cooperative Work Experience (3)

Prerequisite: Completion of Physical Fitness Technology 713 or 714 or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, job interviews, career goals, work ethics, and professional resources. (1 Lec., 15 Lab.)

PFT 804 Cooperative Work Experience (4)

Prerequisite: Completion of Physical Fitness Technology 713 or 714 or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of orientation to cooperative work experience, writing learning objectives, customer service, job interviews, career goals, work ethics, and professional resources. (1 Lec., 20 Lab.)

PHYSICAL SCIENCE

PSC 118 Physical Science (4)

(Common Course Number PHYS 1415)

This course is primarily for non-science majors. It is a study of the basic principles and concepts of physics, chemistry, and nuclear science. The three basic sciences are related to the physical world at an introductory level. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4001015139)

PSC 119 Physical Science (4)

(Common Course Number PHYS 1417)

This course is for non-science majors. It focuses on the interaction of the earth sciences and the physical world. Geology, astronomy, meteorology, and space science are emphasized. Selected principles and concepts are explored. This course is also offered as Earth Science 117. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4001015139)

PHYSICS

PHY 111 Introductory General Physics (4)

(Common Course Number PHYS 1401)

Prerequisite: Two years of high school algebra, including trigonometry, or the equivalent. This course is for pre-dental, biology, premedical, 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.)

(Coordinating Board Academic Approval Number 4008015339)

PHY 112 Introductory General Physics (4)

(Common Course Number PHYS 1402)

Prerequisite: Physics 111. This course is a continuation of Physics 111. Electricity, magnetism, light, and sound are studied. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4008015339)

PHY 117 Concepts In Physics (4)

(Common Course Number PHYS 1405)

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.)

(Coordinating Board Academic Approval Number 4008015139)

PHY 118 Concepts In Physics (4)

(Common Course Number PHYS 1407)

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.)

(Coordinating Board Academic Approval Number 4008015139)

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.)

(Coordinating Board Academic Approval Number 4008015339)

PHY 132 Applied Physics (4)

Prerequisite: Physics 131. This course is a continuation of Physics 131. Concepts of sound, light, electricity, magnetism, and atomic theory are explained. Laboratory fee. (3 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 4008015339)

PHY 201 General Physics (4)

(Common Course Number PHYS 2425)

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.)

(Coordinating Board Academic Approval Number 4008015439)

PHY 202 General Physics (4)

(Common Course Number PHYS 2426)

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.)

(Coordinating Board Academic Approval Number 4008015439)

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 discussions 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)

(Common Course Number PSYC 2301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4201015140)

PSY 103 Human Sexuality (3)

(Common Course Number PSYC 2306)

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.)

(Coordinating Board Academic Approval Number 4201015342)

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.)

(Coordinating Board Academic Approval Number 4201015240)

PSY 201 Developmental Psychology (3)

(Common Course Number PSYC 2314)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4207015140)

PSY 202 Applied Psychology (3)

(Common Course Number PSYC 2302)

Prerequisite: Psychology 101. Psychological facts and principles are applied to problems and activities of life. Emphasis is on observing, recording, and modifying human behavior. Some off-campus work may be required. (3 Lec.)

(Coordinating Board Academic Approval Number 4201015240)

PSY 205 Psychology Of Personality (3)

(Common Course Number PSYC 2316)

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.)

(Coordinating Board Academic Approval Number 4201015740)

PSY 207 Social Psychology (3)

(Common Course Number PSYC 2319)

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.)

(Coordinating Board Academic Approval Number 4216015142)

RADIOGRAPHY TECHNOLOGY

RAD 112 Radiographic Positioning And Osteology (3)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences courses and support courses. This course is designed to give the student an introduction to the study of basic routine positioning and osteology of various human structures. Laboratory fee. (4 Lec., 4 Lab.)

RAD 114 Principles Of Radiographic Exposure/Protection (2)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences and support courses. This course will offer an introduction to radiographic exposure. The course will include basic radiation protection, radiographic quality factors, and conditions influencing technical exposure factors. Laboratory fee. (2 Lec., 2 Lab.)

RAD 118 Applied Physics (2)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences and support courses. This course will cover an analysis of basic principles from applied electrodynamics to the production of x-rays. Laboratory fee. (2 Lec., 2 Lab.)

RAD 119 Clinical Education Orientation (2)

This course will introduce the student to an area Radiology department and provide an overview of the various components of the department, and provide the student continued opportunity to observe, assist and perform tasks specific to the Radiology Department. (8 Lab.)

RAD 209 Radiographic Pathology (2)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course provides basic foundation in the pathology of human disease processes. Discussion will include the pathogenesis of disease, symptoms, radiographic diagnostic criteria, and prognosis. (2 Lec.)

RAD 227 Clinical Education I (4)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. Under supervision of faculty and clinical staff, the student will assist, observe, and perform basic diagnostic radiographic procedures in a clinical setting. Students are assigned to an affiliated hospital radiology department. (24 Lab.)

RAD 236 Radiographic Positioning And Osteology II (3)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course is a continuation of Radiographic Positioning and Osteology I, with emphasis on the positioning and osteology of the thoracic cage, vertebral column, skull, paranasal sinuses, facial bones, and pelvic girdle. Laboratory fee. (2 Lec., 3 Lab.)

RAD 237 Principles of Radiologic Exposure II (3)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course is a continuation of Radiologic Sciences 114 with an emphasis on the study of processor quality assurance and quality control, mathematical relationships related to technical information, and various imaging modalities. Laboratory fee. (2 Lec., 1 Lab.)

RAD 244 Clinical Education II (6)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course is a continuation of Radiologic Sciences 227. Students will be assigned to an affiliated hospital radiology department. (32 Lab.)

RAD 247 Routine Special Studies (1)

The focus of this course is on those procedures considered advanced to the Diagnostic Radiology Department. An introduction to highly specialized equipment, contrast media, and radiographic procedures will be done. (1 Lec.)

RAD 248 Clinical Education III (Externship) (4)

Prerequisite: Minimum grade of "C" or better in all previous Radiologic Sciences courses. This course is a continuation of Radiologic Sciences 244. This externship will also include a Registry review. (40 Lab.)

RAD 251 Radiation Protection And Radiation Biology (2)

Prerequisites: Minimum of "C" or better in all previous Radiologic Sciences and support courses. This course is designed to introduce the student to the application of radiation-limiting devices and techniques utilized in radiography to protect the public from excessive radiation during radiographic examinations. Discussion will include patient and personnel protective measures, as well as various methods to detect and measure radiation. This course will also provide an introduction to the theory of radiobiology. Discussion will focus on the interaction between ionizing radiation and living tissue, with emphasis on fundamental radiological principles. Cellular, systemic, and total body response to radiation from diagnostic technology, nuclear medicine technology, and radiation therapy will be presented. (2 Lec.)

(RAD) See RADIOLOGIC SCIENCES for Other RAD courses

RADIOLOGIC SCIENCES

RAD 106 Introduction To Radiologic Sciences II (3)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences and support courses and concurrent enrollment and/or previous completion of required semester support courses. This course will focus on basic patient care skills for Diagnostic Radiography/Sonography students. Demonstration of patient care skills will be presented in the laboratory setting. Principles of Medical Imaging, a continuation of Medical Terminology, and visits to affiliated Radiology Departments will be included. (2 Lec., 2 Lab.)

RAD 110 Introduction To Radiologic Sciences I (2)

Prerequisites: Admission to the Radiologic Sciences program and concurrent enrollment or previous completion of required semester support courses. This course is designed to introduce the student to the field of Radiologic Technology and Diagnostic Medical Sonography. This course will focus on medical ethics, medical terminology, and history of radiology. An orientation to area medical center Radiology Departments for demonstration and observation of radiologic skills will be included. (2 Lec., 1 Lab.)

RAD 122 Computer Applications In Radiology (3)

Prerequisites: Minimum grade of "C" or better in all previous Radiologic Sciences courses and support courses. This course presents an overview of the history, components and operation of computers related to their use in medical imaging and medical information systems. Specific applications in imaging and current trends in imaging will be presented. (3 Lec.)

(DMS) See DIAGNOSTIC MEDICAL SONOGRAPHY

(RAD) See RADIOGRAPHY TECHNOLOGY for Other RAD courses

RADIO/TELEVISION

RTV 210 Television Production I (3)

(Common Course Number COMM 1336)

Prerequisite: Journalism 101 or demonstrated competence approved by the instructor. This course introduces the student to station organization, studio operation, and the use of studio equipment. Topics include continuity, camera operation, sound, lighting, and videotape recording. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 1001045226)

RTV 211 Television Production II (3)

(Common Course Number COMM 1337)

Prerequisite: Radio/TV 210. This course is a continuation of Radio/TV 210. Emphasis is on the concept and technique of production of television broadcasts in practical situations. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 1001045226)

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, note taking, underlining, concentrating, and memory. (3 Lec.)

(Coordinating Board Academic Approval Number 3801015735)

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.)

(Coordinating Board Academic Approval Number 3801015735)

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 act, 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 the 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 134 Real Estate Appraisal-Commercial (3)

Prerequisite: Real Estate 130 and 131 or the equivalent. This course focuses on commercial principles and methods of appraising. Topics include central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. (3 Lec.)

RE 135 Real Estate Appraisal-Residential (3)

Prerequisites: Real Estate 130 and 131 or the equivalent. This course focuses on residential principles and methods of appraising. Topics include central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. (3 Lec.)

RE 136 Real Estate Law (3)

Prerequisite: Real Estate 130 or concurrent enrollment in Real Estate 130 or the equivalent. This course examines the legal concepts of real estate land description, real property rights and estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of titles. (3 Lec.)

RE 138 Promulgated Contract Forms (3)

Concepts of general contract law are reviewed as required by the Real Estate License Act. Emphasis is on detailed instructions and hands-on exercises in preparation of all promulgated contract forms. The course shall include, but not be limited to unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use of forms and case studies involving use of forms. (3 Lec.)

RE 230 Real Estate Office Management/Brokerage (3)

Prerequisite: Real Estate 130 or demonstrated competence approved by the instructor. This course focuses on knowledge and skills required to manage a real estate office. Topics include law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. (3 Lec.)

RE 233 Commercial And Investment Real Estate (3)

Prerequisite: Real Estate 130 or demonstrated competence approved by the instructor. Topics include real estate investment characteristics, techniques of investment analysis, time-value of money, discounted and non-discounted investment criteria, leverage, tax shelters depreciation, and applications to property tax. (3 Lec.)

RE 235 Property Management (3)

Prerequisite: Real Estate 130 or demonstrated competence approved by the instructor. This course focuses on the various aspects of managing property. The role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act are included. (3 Lec.)

RE 237 Residential Inspection For Real Estate Agents (3)

This course is a study of the different types of building systems and materials used in the design and construction of real property. The course will primarily cover residential construction; however, commercial building systems and materials will also be addressed. Different structural building systems will be studied including wood-related products, concrete and concrete masonry, brick, stone, and steel units. The TREC Promulgated Property Condition Addendum will be addressed along with inspector and client agreement, tools and procedures, electromechanical systems (plumbing, heating, air conditioning, appliances, energy-saving considerations); and structures (lot and landscape, roofs, chimney, gutters, paving, walls, windows and doors, insect damage and storage areas). (3 Lec.)

RE 240 Special Problems In Real Estate (1)

This is a special problems study course for organized class instruction in real estate. Examples of topics might include: market analysis and feasibility studies, land economics, international real estate, urban planning and development, tax shelter regulations, international money market, environmental impact and energy conservation. This course may be repeated for credit up to a maximum of three hours of credit. (1 Lec.)

RE 241 Special Problems In Real Estate (3)

This is a special problems study course for organized class instruction in real estate. Examples of topics might include: market analysis and feasibility studies, land economics, international real estate, urban planning and development, tax shelter regulations, international money market, environmental impact and energy conservation. This course may be repeated for credit up to a maximum of six hours of credit. (3 Lec.)

RE 704 Cooperative Work Experience (4)

Prerequisites: Completion of two core Real Estate courses, concurrent enrollment in a core or related course or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of the development of a personalized on-the-job training plan and discussions with field experts on the application of real estate fundamentals which may include brokerage, marketing, finance, law, property management and appraisal in the residential and commercial real estate sectors. (1 Lec., 20 Lab.)

RE 714 Cooperative Work Experience (4)

Prerequisites: Completion of two core real estate courses and Real Estate 704, enrollment in a core or related course or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of the development of a personalized on-the-job training plan and continuation of discussions with field experts on the application of real estate fundamentals which may include brokerage, marketing, finance, law, property management and appraisal in the residential and commercial real estate sectors. (1 Lec., 20 Lab.)

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 characteristics of current religious groups and movements. Emphasis is on understanding the role of religion in American life. (3 Lec.)

(Coordinating Board Academic Approval Number 3802015135)

REL 102 Contemporary Religious Problems (3)

Both classic and recent issues are explored. Such topics as the nature of religion, the existence of God, world religions, mysticism, sexuality and religion, and the interpretation of death are included. This course may be offered with emphasis on a specific topic, such as death and dying. (3 Lec.)

(Coordinating Board Academic Approval Number 3802015335)

REL 105 The History And Literature Of The Bible (3)

This course presents a history and literature of both the Hebrew people during the Old Testament period and the Christian movement during the New Testament period with emphasis upon the origins and development of the religious ideas and institutions of the biblical people. (3 Lec.)

(Coordinating Board Academic Approval Number 3802015135)

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.)

(Coordinating Board Academic Approval Number 3802015235)

RESPIRATORY CARE**RES 155 Technology I (4)**

Prerequisites: Admission to the Respiratory Care Program and minimum grade of "C" in required prerequisite courses. Basic respiratory care skills are described, demonstrated, then practiced in the laboratory and hospital setting. Equipment function, maintenance and patient response to therapy are discussed. Therapeutic procedures are generally limited to the noncritical patient. Laboratory fee. (3 Lec., 6 Lab)

RES 159 Structure And Function Of The Cardiopulmonary System (3)

Prerequisites: Admission to the Respiratory Care Program and minimum grade of "C" in required prerequisite courses. This course focuses on the normal anatomy and physiology of the cardiopulmonary system. (3 Lec.)

RES 166 Pharmacology I (3)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course introduces the student to the fundamental principles and practices of Respiratory Care pharmacology. Identification, classification, dosage calculation, and principle effects and side effects of cardiopulmonary drugs are discussed. (3 Lec.)

RES 171 Technology II (6)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course is a continuation of Respiratory Care 155. Specific details of the design and function of respiratory therapy equipment are discussed. Procedures will be demonstrated and practiced in the laboratory and clinical setting. Laboratory fee. (3 Lec., 20 Lab.)

RES 172 Basic Respiratory Pathology (4)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course provides an in-depth study of disease states related to cardiopulmonary function and the application and interpretation of related diagnostic, evaluation, and therapeutic procedures. (4 Lec.)

RES 176 Technology III (6)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course is a continuation of Respiratory Care 171. The course will focus on management of critical patient procedures. Equipment and procedures utilized in long term mechanical ventilatory support are emphasized. Topics such as patient assessment and complications of continuous mechanical ventilation are discussed. Laboratory fee. (4 Lec., 25 Lab.)

RES 275 Advanced Pathology/Pharmacology (3)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses; concurrent enrollment in Respiratory Care 278 and Biology 216. This course provides advanced study in assessment and monitoring of patients with cardiopulmonary diseases. The student is introduced to pharmacologic agents not administered by inhalational methods which may affect the cardiopulmonary system. (3 Lec.)

RES 278 Technology IV (6)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course provides an in-depth study of fetal lung development and the cardiopulmonary disorders associated with pediatric and neonatal patients. Laboratory procedures introduce mechanical ventilators used for the pediatric and neonatal patient. In clinical activities, students will practice management of mechanically ventilated adult patients in the critical care setting. Laboratory fee. (3 Lec., 19 Lab.)

RES 280 Technology V (5)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course focuses on the assessment and rehabilitation of patients with diseases or conditions that effect the cardiopulmonary system. Problem-solving skills for clinical situations are emphasized in the laboratory. Clinical practice activities will include experiences in general and intensive adult respiratory care, pediatric and neonatal respiratory care, and rehabilitation care of patients with diseases or conditions that affect the cardiopulmonary system. Laboratory fee. (2 Lec., 18 Lab.)

RES 282 Advanced Pulmonary Function (2)

Prerequisites: Minimum grade of "C" in all previous Respiratory Care courses and required support courses. This course provides instruction in the theory and background of advanced procedures related to the diagnosis and management of diseases and conditions which affect the cardiopulmonary system. Information concerning the latest technological advances in pulmonary diagnostic equipment is presented. (2 Lec.)

SMALL ENGINE**SE 154 Small Engine Service Principles (4)**

This course includes the principles of operation and failure analysis of two and four cycle engines. The principles of basic electricity as applied to small engines are also covered. Laboratory fee. (120 Contact Hours)

SE 155 Small Engine Tune-Up (4)

This course includes the tune-up procedures for small engines including ignition service and carburetion theory and service. Laboratory fee. (120 Contact Hours)

SE 156 Small Engine Two Stroke Overhaul (4)

Overhaul procedures for two stroke engines and drive systems as applied to small engine powered equipment are topics covered in this course. Laboratory fee. (120 Contact Hours)

SE 157 Small Engine Four Stroke Overhaul (4)

This course includes overhaul procedures for four stroke engines, drive systems, and hydraulic systems, as applied to small engine powered equipment. Laboratory fee. (120 Contact Hours)

SE 158 Small Engine Electrical Systems (4)

This course includes the theory of operation and troubleshooting procedures for ignition, charging, and accessory systems as applied to small engine powered equipment. Laboratory fee. (120 Contact Hours)

SE 733 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Small Engine Mechanics program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, employer expectations of employees and service repair liability. (1 Lec., 15 Lab.)

SE 734 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Small Engine Mechanics program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of topics which include job interview and job application techniques, job site interpersonal relations, employer expectations of employees and service repair liability. (1 Lec., 20 Lab.)

SOCIAL WORK**SW 101 Orientation To Social Services (3)**

The historical development of social services in our society is surveyed. The student is introduced to concepts of "social welfare" and "social policy" which emphasize the relationship between social policy and delivery of social services. Descriptions of present day social welfare programs in terms of their philosophy, legal base, program policy, and impact on both the target service group and the larger community are presented. Contact with community agencies gives students the opportunity to assess their interest in a helping profession. Cultural diversity and ethical issues are emphasized. (3 Lec.)

SW 105 Basic Interviewing And Counseling Skills (3)

Counseling techniques such as intake interviewing, relationship building, problem identification and resolution are studied. Skill development in the areas of assessment, intervention, prevention and planning are part of the course. Techniques of listening, observing, and recording are practiced. Various therapeutic models are reviewed. Cultural diversity and ethical issues are emphasized. (3 Lec.)

SW 107 Abnormal Behavior (3)

Factors associated with defining and identifying abnormal behavior are explored. The psychological meaning of mental illness in the family and the consequences of seeking help for the mentally ill family member will be covered. Attention will be paid to the social consequences of abnormal behavior. (3 Lec.)

SW 111 Aging In America (3)

Current demographics reflecting the aging of America will be studied. Course objectives focus on understanding people and the aging process. Improving the quality of life for the aging and the effects of discrimination will be emphasized. (3 Lec.)

SW 115 Adolescent Life Cycle (3)

This is the study of the development phase from adolescence through young adulthood. The course will focus on the tasks and goals to be achieved during these stages. Physical and psychological changes, as well as the areas of interpersonal relationships and the individual ability to relate to the social environment, will be studied. An in-depth exploration of certain critical areas of the adolescent period of the life cycle to increase the student's understanding and ability to work with youth will be emphasized. Personality theories for understanding behavior will be presented. (3 Lec.)

SW 201 Introduction To Social Work (3)

An overview of the social work profession that introduces many of the terms, concepts, people and critical events that have shaped the profession are presented. The student obtains an understanding of the reasons social work exists in this society and the purpose of the "Code of Ethics" in preserving social work's professional integrity. The role of the National Association of Social Workers and the Council on Social Work Education in maintaining and strengthening the social work education and standards is examined. Students learn to recognize the importance of human service agencies in fostering or diminishing the quality of services provided and have some empathy for what it is like to be poor or to experience the impact of institutional racism, sexism or ageism. (3 Lec.)

SW 205 Social Policies And Programs For The Aging (3)

The legislative origins of social policies affecting the aging are analyzed. Resources and services for the aging are surveyed. Emphasis is placed on fostering independent living. Concepts of alternate housing, health care, community services, and leisure time activities are presented. (3 Lec.)

SW 209 Life Cycle Of The Aged (3)

The biological, psychological, and social aspects of aging are presented. The objective of the course is to provide a framework for implementing a comprehensive psychosocial diagnosis within a family context and social work intervention based on an understanding of the aged persons, the family, the community and institutional environments. The intergenerational concept and treatment model is introduced. (3 Lec.)

SW 213 Health Status Of The Aged (3)

The course will address the issues of wellness as well as the many illnesses likely to affect the aging. Medical, dental and nursing services are evaluated from an institutional and a community basis. The concepts of home support services, home health care services are studied. Case management which is the coordinating and linking component of the long-term care continuum is studied. (3 Lec.)

SW 217 Special Problems Of Youth (3)

Prerequisite: Social Work 115. The course provides information to the student about the particular problems of youth, examines these problems in some depth, and explains their implications for the worker delivering services to this population. Information about youth serving social institutions of both a preventive and rehabilitative nature is presented. Emphasis is given to issues of chemical abuse and their effects. (3 Lec.)

SW 219 Social Work Methods And Procedures (3)

Prerequisites: Social Work 101 and Social Work 105. Basic social work practices are introduced. The course provides a framework for the development of beginning intervention skills and techniques presented through the problem-solving model. A framework for assessment and for the understanding of the types of problems that arise in the person-situation interaction is developed. Oral and written communications essential for assessment, screening, intervention, client information and referral are studied. Reports, record-keeping, interviewing and counseling techniques are developed. Cultural diversity and ethical issues are emphasized. (3 Lec.)

SW 226 Nursing Home Activity Director Training (4)

The role of the nursing home activity director is the focus of this course. Both the roles of the nursing home and of the activities program are covered. Topics include the nursing home's historical development and relationship to the community, need and resource assessment, specialized knowledge about the aged resident, and interviewing skills. Program planning, working in groups, programming activities, developing an activities department, and therapeutic techniques in the nursing home are also included. (3 Lec., 3 Lab.)

SW 228 Special Topics In Social Services (3)

Special topics in social services are studied. Topics will vary depending on current issues of concern and interest. It may be repeated for credit. (3 Lec.)

SW 229 Group Work Intervention (3)

Prerequisite: Social Work 105. The course examines the various stages of the group work treatment process, emphasizing roles, tasks and possible problem areas. The student will study how groups function, the structure of groups and communication patterns within the group. Observable behavior on an experimental basis is the focus of the course. Students will be given an opportunity to work in a laboratory group, so that they can become sufficiently involved enough to feel and observe the processes while learning to conceptualize them. (3 Lec.)

SW 232 Human Behavior And Social Environment (3)

Human behavior caused by changes in the social environment is the focus of this course. This includes an exploration of interdependence, cultural norms, and group affiliation. (3 Lec.)

SW 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Social Work program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of an orientation to cooperative education, writing learning objectives, role of the on-site supervisor, appropriate on-the-job procedures and time management techniques. The seminar also consists of a review of the cooperative work experience and its effects and advantages to the student. (1 Lec., 15 Lab.)

SW 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Social Work program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of an orientation to cooperative education, writing learning objectives, role of the on-site supervisor, appropriate on-the-job procedures and time management techniques. The seminar also consists of a review of the cooperative work experience and its effects and advantages to the student. (1 Lec., 20 Lab.)

SW 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Social Work program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of learning effective communication skills, identification of academic and community resources, effective intra and interpersonal relationships, identification of effective wellness and prevention programs, and effectively managing financial resources. The seminar also consists of a review of the cooperative work experience and its effects and advantages to the student. (1 Lec., 15 Lab.)

SOCIOLOGY**SOC 101 Introduction To Sociology (3)**

(Common Course Number SOCI 1301)

This course is a sociological study of social behavior and social structures, emphasizing the importance of a knowledge and appreciation of the multicultural and multiethnic dimensions of society. Topics include cultural elements such as values, norms, beliefs, language, and roles, as well as group processes, social conflict and social change. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015142)

SOC 102 Social Problems (3)

(Common Course Number SOCI 1306)

This course is a sociological 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.)

(Coordinating Board Academic Approval Number 4511015242)

SOC 103 Human Sexuality (3)

(Common Course Number SOCI 2306)

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.)

(Coordinating Board Academic Approval Number 4201015340)

SOC 203 Marriage And Family (3)

(Common Course Number SOCI 2301)

Prerequisite: Sociology 101 recommended. Courtship patterns and marriage are analyzed. Family forms, relationships, and functions are included. Sociocultural differences in family behavior are also included. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015442)

SOC 204 American Minorities (3)

(Common Course Number SOCI 2319)

Prerequisite: Sociology 101 or six 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.)

(Coordinating Board Academic Approval Number 4511015342)

SOC 206 Introduction To Social Work (3)

(Common Course Number SOCW 2361)

The development of the field of social work is studied. Topics include the techniques of social work and the requirements for training in social work. (3 Lec.)

(Coordinating Board Academic Approval Number 4407015142)

SOC 207 Social Psychology (3)

(Common Course Number SOCI 2326)

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.)

(Coordinating Board Academic Approval Number 4216015142)

SOC 209 Selected Topics (3)

Prerequisite: Sociology 101 or demonstrated competence approved by the instructor. An in-depth study of specific contemporary topics in sociology such as popular culture (including sports, religion and mass media), the military as a social institution, education, medicine, ethnographic film, apartheid, deviance or formal organizations. This course may be repeated for credit when topics vary. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015742)

SOC 210 Field Studies In American Minorities (3)

(Common Course Number SOCI 2320)

Prerequisite: Sociology 101 or Sociology 204. Experience is provided in various minority community centers. Work is under professional supervision in a task-oriented setting. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015342)

SOC 231 Urban Social Problems (3)

The sociology of social institutions is studied. Topics include urbanization, theories of formation, and the impact of urbanization on the individual. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015742)

SPANISH

SPA 101 Beginning Spanish (4)

(Common Course Number SPAN 1411)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1609055131)

SPA 102 Beginning Spanish (4)

(Common Course Number SPAN 1412)

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.)

(Coordinating Board Academic Approval Number 1609055131)

SPA 201 Intermediate Spanish (3)

(Common Course Number SPAN 2311)

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.)

(Coordinating Board Academic Approval Number 1609055231)

SPA 202 Intermediate Spanish (3)

(Common Course Number SPAN 2312)

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. Grammar is reviewed and expanded. (3 Lec.)

(Coordinating Board Academic Approval Number 1609055231)

SPA 203 Introduction To Spanish Literature (3)

(Common Course Number SPAN 2321)

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.)

(Coordinating Board Academic Approval Number 1609055331)

SPA 204 Introduction To Spanish Literature (3)

(Common Course Number SPAN 2322)

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, art, and civilization. (3 Lec.)

(Coordinating Board Academic Approval Number 1609055331)

SPA 207 Spanish Conversation I (3)

(Common Course Number SPAN 2308)

Prerequisite: Spanish 101 and Spanish 102 or the equivalent. This course is designed to strengthen and improve oral skills in the language. Oral activities focus on current events, cultural, historical and social issues. Audio-visual media are used to explore Hispanic life and society. This course is intended to complement Spanish 201. (3 Lec.)

(Coordinating Board Academic Approval Number 1609055431)

SPA 208 Spanish Conversation II (3)

Prerequisite: Spanish 201 or the equivalent. This course is designed to further strengthen and improve oral skills in the language. Oral activities will continue to focus on current events, cultural, historical and social issues. Audio-visual media are used to explore Hispanic life and society. This course is intended to complement Spanish 202. (3 Lec.)

(Coordinating Board Academic Approval Number 1609055431)

SPA 211 Spanish for Business I (3)

Prerequisite: Spanish 201 or the equivalent. This course exposes students to the Spanish language used in business including the terminology and idioms of Spanish business language in specific oral and written communication. Emphasis is placed on the structure and content of Spanish business correspondence. Authentic materials are used to give students a contemporary view of business as it is conducted in Hispanic society. This course is not a substitute for Spanish 201 or 202. (3 Lec.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

SPA 212 Spanish for Business II (3)

Prerequisite: Spanish 211 or the equivalent. This course is devoted to the continued development of business language skills with a focus on the accurate use of business vocabulary and business style. Emphasis is on preparing students to function in Spanish in a business setting via practice of receptive and productive linguistic skills. The course also provides training in cross-cultural communication skills and is designed to help students achieve levels of proficiency to meet foreign language needs for business and international trade. This course is not a substitute for Spanish 201 or 202. (3 Lec.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

SPEECH COMMUNICATION**SC 100 Speech Communication Laboratory (1)**

(Common Course Number SPCH 1144)

This laboratory course focuses on students applying speech communication skills through service projects, internships, and leadership activities. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 2310016035)

SC 101 Introduction To Speech Communication (3)

(Common Course Number SPCH 1311)

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.)

(Coordinating Board Academic Approval Number 2310015135)

SC 105 Fundamentals Of Public Speaking (3)

(Common Course Number SPCH 1315)

Public speaking is introduced. Topics include the principles of reasoning, audience analysis, collection of materials, outlining, and delivery. Emphasis is on the oral presentation of well prepared speeches. (3 Lec.)

(Coordinating Board Academic Approval Number 2310015335)

SC 109 Voice And Articulation (3)

(Common Course Number SPCH 1342)

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.)

(Coordinating Board Academic Approval Number 2310015835)

SC 110 Speech Communication Workshop (1)

(Common Course Number SPCH 1145)

This laboratory course offers students a wide variety of applied speech communication experiences. This course may be repeated four times for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 2310016035)

SC 201 Forensic Workshop (1)

(Common Course Number SPCH 2144)

This course focuses on preparing speeches, readings, and debate propositions. Presentations are made in competition and before select audiences. This course may be repeated for credit. (2 Lab.)

(Coordinating Board Academic Approval Number 2310016035)

SC 203 Interpersonal Communication (3)

(Common Course Number SPCH 1318)

Theories and exercises in verbal and nonverbal communication with focus on interpersonal relationships. (3 Lec.)

(Coordinating Board Approval Number 2310015435)

SC 205 Discussion And Debate (3)

(Common Course Number SPCH 2335)

Public discussion and argumentation are studied. Both theories and techniques are covered. Emphasis is on evaluation, analysis, and logical thinking. (3 Lec.)

(Coordinating Board Academic Approval Number 2310015935)

SC 206 Oral Interpretation (3)

(Common Course Number SPCH 2341)

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.)

(Coordinating Board Academic Approval Number 2310015735)

SC 208 Group Interpretation (3)

This course offers practical experience in sharing fiction and nonfiction selections with audiences. Various types of literature are studied for group presentation. Emphasis is on selecting, cutting, and arranging prose and poetry, and applying reader's theatre techniques to group performance of literature. (3 Lec.)

(Coordinating Board Academic Approval Number 2310015735)

SC 209 Business And Professional Communication (3)

(Common Course Number SPCH 1321)

Theories and skills of speech communication as applied to business and professional situations will be studied. (3 Lec.)

(Coordinating Board Academic Approval Number 2310015235)

SUBSTANCE ABUSE

SA 109 Physiology Of Addiction (3)

The course provides an understanding of the historical perspectives of chemical dependency, the terminology used to define the problems of chemical dependency and the types of chemicals used. The pharmacological, physiological, psychological and socio-cultural effects of alcohol, barbiturates, hallucinogens, tranquilizers, prescription drugs and stimulants on the human body will be studied. (3 Lec.)

SA 113 Alcoholism Counseling (3)

Specific counseling approaches used in treating persons labeled as alcoholics will be presented, including simulated individual and group counseling sessions. Students will be exposed to a variety of counseling styles and community and residential treatment programs. (3 Lec.)

SA 203 Alcoholism Treatment Models (3)

Prerequisite: Substance Abuse 109 and Substance Abuse 113. Prevalent approaches to treating alcoholism are studied. Various treatment models (detoxification, half-way houses, aftercare, and other self-help models) are examined. (3 Lec.)

SA 207 Prevention Of Substance Abuse (3)

A developmental approach to the study of alcohol (and other substance) abuse and dependency is presented. Exposure to literature and current trends in understanding and preventing substance addiction will be the focus of the course. (3 Lec.)

SA 211 Family Intervention In Substance Abuse And Dependency (3)

Prerequisites: Social Work 105 and 109. Advanced counseling techniques which emphasize family intervention in treating chemical dependency are provided. The family systems approach is studied; actual counseling and role playing techniques are used. (3 Lec.)

SA 215 Issues in Substance Abuse And Dependency (3)

The American value system and resulting legal implications of addiction are analyzed. Other areas of study include prevention, rehabilitation, and the abuser's problematic relationships. (3 Lec.)

SA 714 Cooperative Work Experience (4)

Prerequisites: Evidence of the completion of the 270 contact hours of approved alcoholism and drug abuse education required by the Texas Certification Board of Alcoholism and Drug Abuse Counselors (TCBADAC). Approval of Program Coordinator and selected TCBADAC approved supervised field work practicum site supervisors. Students completing the necessary course work will be placed with various TCBADAC approved training site providers by the Program Coordinator. During the course, individuals will complete the 300 hours of training in the core function area as prescribed by TCBADAC. The Practicum/Internship requires a minimum of 20 hours per week participation for 15 weeks. The seminar consists of issues covering professional identity, application of knowledge in human behavior, group dynamics, cultural diversity, alcohol and other drugs of abuse, and counseling approaches. (1 Lec., 20 Lab.)

SURGICAL TECHNOLOGY

SGT 145 Medical Terminology (2)

Prerequisite: Successful completion, "C" or better, in English 101 and Biology 123 or 120. Admission to the Surgical Technology Program or by permission of the Surgical Technology Coordinator. The origin and structure of medical terms are studied. Emphasis is on building a medical vocabulary. (2 Lec.)

SGT 146 Surgical Pharmacology (2)

Prerequisites: Successful completion, "C" or better, in English 101 and Biology 123 or 120. Admission to the Surgical Technology program or by permission of the Surgical Technology Coordinator. This course is designed to introduce students to the principles and practices of pharmacology as applied in the surgical setting. Topics include weights and measures, dosages and solutions, common routes of administration, and drug classifications. Precautions and safe practices when handling drugs specific to the operating room are discussed. (2 Lec.)

SGT 147 Surgical Techniques (8)

Prerequisites: Acceptance to the Surgical Technology Program and successful completion, "C" or better, of English 101 and Biology 123 or 120. Concurrent enrollment in, or previous successful completion, "C" or better, of Surgical Technology 145, Surgical Technology 146, Human Development 105 and Biology 121 if Biology 120 was taken previously. This course is an introduction to the operating room and its environment. Basic principles of surgical asepsis; preparation and care of surgical instruments, supplies and equipment; and care and safety of the patient in the operating room are studied. Ethical and legal implications are discussed. Student participation in the clinical setting is incorporated. Laboratory fee. (6 Lec., 10 Lab.)

SGT 151 Surgical Procedures (8)

Prerequisites: Successful completion, "C" or better, of all prerequisite and previous semester support and Surgical Technology course work. Concurrent enrollment in, or previous successful completion, "C" or better, of Speech Communication 101. During this course the student expands the basic principles from Surgical Technology 147 to include specific patient preparation, medications, instrumentation and complications related to selected surgical procedures. Student participation in the clinical setting is incorporated. Laboratory fee. (4 Lec., 20 Lab.)

SGT 158 Clinical Procedures (6)

Prerequisites: Successful completion, "C" or better, of all prerequisite and previous semester support and Surgical Technology course work. Concurrent enrollment in Surgical Technology 159. The student will gain further expertise in providing patient care in the surgical setting. An effective level of practice and knowledge must be demonstrated by the student in selected surgical procedures. (35 Lab.)

SGT 159 Seminar (1)

Prerequisites: Successful completion, "C" or better, of all prerequisite and previous semester support and Surgical Technology course work. Concurrent enrollment in Surgical Technology 158. This course focuses on issues and special situations a student may face as a surgical technologist. Role transition from student to employee is incorporated. (2 Lec.)

SGT 160 Surgical Procedures For Registered Nurses (8)

Prerequisites: Minimum grade of "C" in Surgical Technology 145 and 147 and current licensure by the Texas State Board of Nurse Examiners. In this course the student expands the principles presented in Surgical Technology 147. Included are specific patient preparation, roles, and legal and ethical responsibilities of operating room nursing. Roles of the registered nurse in pre-operative and postoperative visitation and in complications of surgery are presented. (4 Lec., 20 Lab.)

THEATRE**THE 101 Introduction To The Theatre (3)**

(Common Course Number DRAM 1310)

The various aspects of theatre are surveyed. Topics include plays, playwrights, directing, acting, theatres, artists, and technicians. (3 Lec.)

(Coordinating Board Academic Approval Number 5005015130)

THE 102 Contemporary Theatre (3)

This course is a study of the modern theatre. The historical background and traditions of each style are included. Emphasis is on understanding the social, culture, and aesthetic significance of each style. A number of modern plays are read and selected video tapes are viewed. (3 Lec.)

(Coordinating Board Academic Approval Number 5005055130)

THE 103 Stagecraft I (3)

(Common Course Number DRAM 1330)

The technical aspects of play production are studied. Topics include shop procedures, the planning and fabrication of scenic elements, and backstage operations. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005025130)

THE 104 Stagecraft II (3)

(Common Course Number DRAM 2331)

Prerequisite: Theatre 103 or demonstrated competence approved by the instructor. Emphasis is placed on the design process and individual projects. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005025130)

THE 105 Make-Up For The Stage (3)

(Common Course Number DRAM 1341)

The craft of make-up is explored. Both theory and practice are included. Laboratory fee. (3 Lec.)

(Coordinating Board Academic Approval Number 5005025230)

THE 106 Acting I (3)

(Common Course Number DRAM 1351)

The theory of acting and various exercises are presented. Body control, voice, interpretation, characterization, and stage movement are included. Both individual and group activities are used. Specific roles are analyzed and studied. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005035130)

THE 107 Acting II (3)

(Common Course Number DRAM 1352)

Prerequisite: Theatre 106 or demonstrated competence approved by the instructor. This course is a continuation of Theatre 106. Emphasis is on characterization and ensemble acting. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005035130)

THE 109 Voice And Articulation (3)

(Common Course Number DRAM 2336)

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.)

(Coordinating Board Academic Approval Number 2310015835)

THE 110 History Of Theatre I (3)

(Common Course Number DRAM 2361)

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.)

(Coordinating Board Academic Approval Number 5005055130)

THE 111 History Of Theatre II (3)

(Common Course Number DRAM 2362)

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.)

(Coordinating Board Academic Approval Number 5005055130)

THE 112 Beginning Dance Technique In Theatre (3)

(Common Course Number DANC 1345)

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.)

(Coordinating Board Academic Approval Number 5003015230)

THE 113 Intermediate Dance (3)

(Common Course Number DANC 1346)

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.)

(Coordinating Board Academic Approval Number 5003015230)

THE 114 Rehearsal And Performance I (1)

(Common Course Number DRAM 1120)

Participation in the class may include any phase of rehearsal and performance of the current theatrical presentation. This course may be repeated for credit. (3 Lab.)

(Coordinating Board Academic Approval Number 5005015230)

THE 199 Demonstration Lab (1)

Scenes studied in various theatre classes are demonstrated to show contrast and different styles. This course may be repeated for credit. (1 Lab.)

(Coordinating Board Academic Approval Number 5005015130)

THE 201 Television Production I (3)

Station organization, studio operation, and the use of studio equipment are introduced. Topics include continuity, camera, sound, lights, and videotape recording. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 1001045226)

THE 202 Television Production II (3)

Prerequisite: Theatre 201. This course is a continuation of Theatre 201. Emphasis is on the concept and technique of production in practical situations. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 1001045226)

THE 205 Scene Study I (3)

(Common Course Number DRAM 2351)

Prerequisites: Theatre 106 and 107. Emphasis is on the study, rehearsal and performance of selected scenes of various periods and styles. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005035130)

THE 207 Scene Study II (3)

(Common Course Number DRAM 2352)

Prerequisite: Theatre 205. This course is a continuation of Theatre 205. Emphasis is on individual needs of the performer and the various styles of production. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005035130)

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 ground plans, vertical sections, construction elevations, and spider perspective. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005025130)

THE 209 Lighting Design (3)

The design and techniques of lighting are covered. Topics include instrumentation, electricity, control and practical experience. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005025130)

THE 210 Rehearsal And Performance II (2)

(Common Course Number DRAM 1221)

Participation in the class may include any phase of rehearsal and performance of the current theatrical presentation. This course may be repeated for credit. (6 Lab.)

(Coordinating Board Academic Approval Number 5005015230)

THE 211 Broadcasting Communications I (3)

Basic techniques of television and video performance are introduced. (3 Lec.)

(Coordinating Board Academic Approval Number 0904035226)

THE 212 Broadcasting Communications II (3)

Prerequisite: Theatre 211 or demonstrated competence approved by the instructor. This course is a continuation of Theatre 211. Emphasis is on radio and television as mass media and practical applications in both radio and television. (3 Lec.)

(Coordinating Board Academic Approval Number 0904035226)

THE 236 Theatre Workshop (3)

(Common Course Number DRAM 1323)

A course in theatre with emphasis on performance techniques in musical and repertory theatre with practical performance experience. This course may be repeated for credit. (2 Lec., 3 Lab.)

(Coordinating Board Academic Approval Number 5005015230)

VETERINARY TECHNOLOGY

VT 113 Medical Terminology (1)

The fundamentals of medical terminology are covered with emphasis on prefixes, suffixes and root words and the meaning of the most commonly used words in medical areas as they apply to the technician in daily practice. (1 Lec.)

VT 114 Introduction To Veterinary Technology (4)

This course is an introduction to employment areas, ethical and professional requirements and basic animal handling and care. Included are a survey of common breeds of livestock, domestic pets, and an outline of sanitation and disease principles. Laboratories provide experience and observation in restraint, behavior, grooming and basic animal nursing practices. Laboratory fee. (3 Lec., 3 Lab.)

VT 115 Introduction To Applied Biology And Biochemistry (4)

This course is an introduction to the basic life sciences with emphasis on the cell, cellular physiology, genetics, basic principles of chemistry and biochemistry. The course will prepare students for later classes in anatomy and physiology and pharmacology. Laboratory fee. (3 Lec., 3 Lab.)

VT 120 Animal Care And Sanitation I (1)

Prerequisite: Veterinary Technology 114. This course covers the common diseases of the canine species, diseases of public health importance, disease transmission and the proper procedures for their prevention. The lab requires the students to help maintain the animals used by the Veterinary Technology program for various courses. Laboratory fee. (1 Lec., 1 Lab.)

VT 121 Veterinary Anatomy And Physiology I (4)

Prerequisite: Biology 101. Mammalian life processes and body structure are presented on a comparative basis. A gross study of selected organ systems is made using the dog, cat, horse and cow. Laboratory fee. (3 Lec., 3 Lab.)

VT 122 Animal Behavior (2)

This course is designed to provide students with an understanding of the instincts and life functions of domestic and selected wild animals. Special emphasis is on socialization of the dog, cat and horse and behavioral problems in these species. The human/companion animal bond is also covered in selected areas of the course. (2 Lec.)

VT 131 Veterinary Anatomy And Physiology II (4)

Prerequisite: Veterinary Technology 121. This course is a continuation of Veterinary Technology 121. Laboratory fee. (3 Lec., 3 Lab.)

VT 132 Pharmacology (3)

Prerequisite: Mathematics 139. Various chemicals and drugs used in the veterinary practice are studied. Topics include the measurement of drugs, common routes of administration, proper handling and storage, principles of efficient ordering, dispensing and inventory control. Requirements of narcotic, stimulant and depressant drug control are emphasized. Basic drug categories and their use in relation to disease treatment are outlined. (3 Lec.)

VT 134 Animal Care And Sanitation II (1)

Prerequisite: Veterinary Technology 120. This course covers the common diseases of the feline species, diseases of public health importance, disease transmission and the procedures for prevention. The lab requires the students to help maintain the animals used by the Veterinary Technology program for various courses. Laboratory fee. (1 Lec., 1 Lab.)

VT 135 Clinical Pathology I (5)

Prerequisite: Veterinary Technology 114. Clinical laboratory methods are covered. Topics include internal and external parasites, CBC's, leukocytes in disease and erythrocytes in disease processes. Laboratory emphasis on identification of common parasites, internal and external, blood analysis is undertaken, including preparation of blood smears, differential cell counts, hemoglobin and packed cell volume determinations. Laboratory fee. (3 Lec., 6 Lab.)

VT 136 Equine Reproduction And Management (Elective) (3)

Prerequisite: Demonstrated competence approved by the instructor prior to enrollment. This course will cover the basic principles of equine reproductive physiology, the anatomical basis of reproduction with emphasis on endocrinology. Nutrition and other related areas will be covered as well. The laboratory will also focus on basic handling, training, and husbandry of mares, foals and stallions. Laboratory fee. (2 Lec., 3 Lab.)

VT 211 Anesthetics and Surgical Assistance (4)

Prerequisites: Veterinary Technology 114, 132, and 135. This course introduces commonly employed preanesthetic and general anesthetic agents, their methods of administration, patient monitoring while under the effects of these agents and handling of anesthetic emergencies. Principles and techniques of animal, personnel and instrument preparation for surgery, surgical assisting and post operative care are also emphasized. Laboratory periods involve individual practice in anesthetizing and monitoring animal patients and preparing for assisting the veterinarian during surgery. Laboratory fee. (3 Lec., 4 Lab.)

VT 212 Large Animal Assisting Techniques (4)

Prerequisites: Veterinary Technology 114 and 132. This course covers the skills and knowledge needed to support and assist large animal practitioners. Emphasis is on principles and techniques in basic history, physical exams (T.P.R.), administration of drugs on veterinarian's prescription, bandaging techniques, general husbandry, foot and hoof care, reproductive management assisting and recordkeeping. Laboratory fee. (3 Lec., 4 Lab.)

VT 213 Clinical Pathology II (5)

Prerequisite: Veterinary Technology 135. This is a continuation of Veterinary Technology 135 and will cover blood chemistry analysis, urinalysis, and diagnostic microbiology. Laboratory practice will emphasize the practical aspects of the biochemical profiles, urine determinators and identification of pathogenic organisms. Laboratory fee. (3 Lec., 6 Lab.)

VT 214 Animal Care And Sanitation III (1)

Prerequisite: Veterinary Technology 134. This course covers the common equine diseases of public health importance, disease transmission and the proper procedures for prevention. The lab requires the students to help maintain the animals used by the Veterinary Technology program for various courses. Laboratory fee. (1 Lec., 1 Lab.)

VT 215 Special Projects in Veterinary Technology (Elective) (3)

This course provides for individual study in some special interest area of the student's major field. The study is under the guidance of a specific faculty member who acts as advisor and performance evaluator. At the discretion of the student's advisor, a technical paper may be required together with an oral presentation for student information and discussion. Professional staff members may be invited to any special project presentation to aid in discussion of the topic presented. (3 Lec.)

VT 216 Clinical Seminar (Elective) (2)

This course is designed to allow the student to receive on-the-job instruction from an authorized veterinarian concerning daily routine procedures. (2 Lec.)

VT 220 Animal Care And Sanitation IV (1)

Prerequisite: Veterinary Technology 214. The course covers the common diseases of the bovine species, diseases of public health importance, disease transmission and the proper procedures for their prevention. The lab requires the students to help maintain the animals used by the Veterinary Technology program for various courses. Laboratory fee. (1 Lec., 1 Lab.)

VT 221 Radiographic Principles And Practices (3)

Prerequisite: Veterinary Technology 211 and Mathematics 139. Lectures are used to present the theory behind the production of x-rays, machine operation and maintenance, technique chart development, factors involved in producing diagnostic quality radiographs and radiation safety procedures and precautions. Laboratory sessions focus on techniques and practice in proper positioning of the patient, calculation of correct KV and MAS settings for adequate radiographic exposure, manual processing of exposed radiographic film, quality analysis and film storage and handling. Laboratory fee. (2 Lec., 3 Lab.)

VT 222 Veterinary Nursing (4)

Prerequisites: Veterinary Technology 211, 212 and 213. This course integrates and brings into sharp focus skills, techniques and knowledge acquired in earlier courses. In addition, new material, concepts and methods are presented in the areas of infectious and noninfectious disease, animal nursing, emergency first aid, intensive care techniques, dental problems and prophylaxis and client management and relations. Laboratory fee. (3 Lec., 3 Lab.)

VT 223 Laboratory Animal Medicine (3)

Prerequisite: Veterinary Technology 114 and 211. This course introduces handling, restraint, sexing and uses of common laboratory animal species. Methods of husbandry and management to control or prevent common disease species in each of the species considered. Techniques of rodent anesthesia and surgery are presented and practiced. The purpose, concepts and theory of gnotobiotics and axenic techniques are explained. The ethical differences in functional responsibility occurring between veterinary technicians employed in research institutions as compared to employment in veterinary hospitals are emphasized. Laboratory fee. (2 Lec., 3 Lab.)

VT 224 Exotic And Zoo Animal Medicine (2)

Prerequisite: Demonstrated competence approved by instructor prior to enrollment. This course is designed for students seeking a career working in a zoo or with wildlife. Emphasis will be upon husbandry, disease prevention, sanitation, treatment of injuries and diseases and nutrition. (2 Lec.)

VT 225 Avian And Reptile Medicine (2)

Prerequisite: Demonstrated competence approved by the instructor prior to enrollment. This course is designed for students seeking knowledge on avian and reptile species seen in specialty practices. Emphasis will be on the nutrition, husbandry, diseases and treatment of this particular species. (2 Lec.)

VT 703 Cooperative Work Experience (3)

Prerequisite: Instructor approval. This course is designed to put veterinary technical skills into practice in an instructor approved work station. Students must work directly under the supervision of a veterinarian or a technician while applying skills acquired from previous academic preparation. The student, employer and instructor will develop a written competency based learning plan with specific learning objectives. Seminar topics are designed by the instructor for each class and may include but are not limited to clinical pathology, radiology, surgery, medical records, client relations, pharmacy maintenance, animal behavior, job site interpersonal relations, employer/employee expectations and job application techniques. (1 Lec., 15 Lab.)

VT 704 Cooperative Work Experience (4)

Prerequisite: Instructor approval. This course is designed to put veterinary technical skills into practice in an instructor approved work station. Students must work directly under the supervision of a veterinarian or a technician while applying skills acquired from previous academic preparation. The student, employer and instructor will develop a written competency based learning plan with specific learning objectives. Seminar topics are designed by the instructor for each class and may include but are not limited to clinical pathology, radiology, surgery, medical records, client relations, pharmacy maintenance, animal behavior, job site interpersonal relations, employer/employee expectations and job application techniques. (1 Lec., 20 Lab.)

VIDEO TECHNOLOGY

VFT 101 Introduction To Video Technology (3)

This course covers the practical selection and application of production supplies and equipment to shooting situations. It further covers the study of the properties of video tape and a variety of video apparatus used in studio and field production. Equipment theory covers the technical aspects of equipment internal operation and application. Laboratory fee. (2 Lec., 2 Lab.)

VFT 103 Television Lighting (3)

This course introduces students to the theory and application of lighting for television production. Topics include basic lighting equipment for studio and location productions and the application of lighting to a variety of production environments. Choices of color, angle, intensity, distribution, and the proper use of lighting control scrim, screens, and gels are emphasized. Laboratory fee. (2 Lec., 3 Lab.)

VFT 106 Video Production I (4)

This course introduces students to video production and provides an opportunity for students to get initial experience as directors, producers, and equipment crew while handling talent, blocking scenes, dealing with composition, lighting, packing, staging, sound, scripting, and sequencing of shots. This course reviews the history of television in looking at site selection, location shots, set discipline, breaks, shooting schedules, and property management. Laboratory fee. (3 Lec., 4 Lab.)

VFT 110 Video Production II (4)

Prerequisite: Video Technology 106 and 108. This course provides training in the operation of the equipment used in television production facilities and remote shooting locations. The course includes camera operations, application of light and sound, technical directing, video recording techniques, silent and soundover applications, switching, special effects, set blocking, and development of the shoot and use of above and below the line personnel. Laboratory fee. (3 Lec., 4 Lab.)

VFT 112 Video Editing And Post Production I (4)

Prerequisite: Video Technology 106. This course provides the theory and practice of video editing through laboratory exercises in the creative and mechanical aspects of editing and visual sweetening. Laboratory fee. (3 Lec., 4 Lab.)

VFT 115 Audio Production (3)

This course introduces students to the fundamentals of audio production. The course focuses on the properties of sound, conversion into electronic signals, mixing, and recording. The application of audio production to television is emphasized. Laboratory fee. (2 Lec., 3 Lab.)

VFT 203 Video Production III (4)

Prerequisite: Video Technology 106 and 110. The advanced application and design of video productions in location and studio shoots are studied. The students are provided opportunities to build on Video Production I and II knowledge in a variety of productions with real deadlines and quality control restrictions. Students will be introduced to a variety of more sophisticated production equipment than used in Video Technology 106 or 110. (2 Lec., 6 Lab.)

VFT 205 Broadcast Engineering I (3)

Prerequisite: Video Technology 101. This course emphasizes the basics of engineering of video productions. It includes the basic alignment of cameras, vectorscopes, waveform monitors, signal and sync generators, time base correctors, the general operation of each and servicing of many other pieces of equipment. It includes audio and video cable and connector identification, construction, and testing. It further covers PAL, SMPTE, SECAM, NTSC, and EIAJ standards. The basics of electricity and electronics are also emphasized in this class. Laboratory fee. (2 Lec., 3 Lab.)

VFT 210 Video Production IV (4)

Prerequisite: Video Technology 202. Students produce a variety in final projects demonstrating mastery of field and studio competence. The process of developing a video portfolio for use of post graduate interviews, polishing production techniques, and developing an individual style are all important parts of the final production course. Laboratory fee. (2 Lec., 6 Lab.)

VFT 213 Video Editing And Post Production II (4)

Prerequisite: Video Technology 203 and 112. This course provides the students with the opportunity to apply advanced editing and post production skills to advanced equipment while producing final portfolio programs. The course incorporates the use of SMPTE time code editing with time base correction and multisource edits. It also provides opportunities for students to visit local post production facilities. Laboratory fee. (2 Lec., 6 Lab.)

VFT 214 Business Aspects Of Video Management (3)

This general business course for video stresses personnel management, production budgeting, staffing, decision-making, portfolio/resume development, interviewing techniques, site selection, contract law, and copyright management. Use of legal and financial advisors, with a variety of business topics related to production companies, use of post houses, professional organizations, taxes, insurance, entrepreneurship, distribution, marketing, and sales will be discussed in depth. (3 Lec.)

VFT 215 Broadcast Engineering II (3)

Prerequisite: Video Technology 205. This course carries forward the concepts taught in Video Technology 205 and provides for detailed application of electricity and electronics theory in the troubleshooting of problems and maintenance of video equipment. Specific problems in control room equipment adjustment and maintenance will be combined with detailed problems on camera, sound, and lighting instrument maintenance. Laboratory fee. (2 Lec., 4 Lab.)

VFT 218 Scriptwriting And Property Management (3)

This course provides instruction in converting books, plays, drama, story, and other properties into video scripts. The course also deals with the management of these properties and the legal responsibility of property manager. (3 Lec.)

VFT 220 Computer Application To Video Production (3)

Students are provided the opportunity to develop skills in producing computer graphics, working with character generators, teleprompters, and a variety of special computer applications to visual enhancement and special effects. Laboratory fee. (2 Lec., 4 Lab.)

VFT 226 Music Video Production (3)

Prerequisite: Video Technology 202. The student will produce a variety of video programs with a music theme and a complementary visual sequence. The process of making music videos will be thoroughly explored including visits to local production houses and application of both original, live, and canned music to visual aesthetics. Laboratory fee. (2 Lec., 4 Lab.)

VFT 232 Broadcast, Cable, And Satellite Technology (3)

This course is designed to provide a working knowledge of control room, distribution, headend, uplink, transmission, and a variety of other signal transfer techniques. Students will study the theory and application of these diverse video operations. (3 Lec.)

VFT 703 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Video Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation, writing objectives, and work station objectives, how to find a job, resume writing, preparation for the interview, the interview, job interview from the employer's viewpoint, group discussions on experiences of job interviews, interpersonal relationships with supervisor and co-workers. (1 Lec., 15 Lab.)

VFT 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Video Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation, writing objectives, and work station objectives, how to find a job, resume writing, preparation for the interview, the interview, job interview from the employer's viewpoint, group discussions on experiences of job interviews, interpersonal relationships with supervisor and co-workers. (1 Lec., 20 Lab.)

VFT 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in the Video Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation, writing objectives and work station agreements, review of work station objectives, problem solving in the workplace, role of supervisor and subordinates, building the workplace, role of supervisor and subordinates, building self-esteem, discussion of job site problems, revising existing resume, Interpersonal relationships with professionals in the field that the students comes into contact with, and how to gain a professional attitude within the workplace. (1 Lec., 15 Lab.)

VFT 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in the Video Technology program or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences. Students must develop new learning objectives each semester. The seminar consists of orientation, writing objectives and work station agreements, review of work station objectives, problem solving in the workplace, role of supervisor and subordinates, building self-esteem, discussion of job site problems, revising existing resume, Interpersonal relationships with professionals in the field that the student comes into contact with, and how to gain a professional attitude within the workplace. (1 Lec., 20 Lab.)

VISUAL COMMUNICATIONS

VC 110 Introduction To Visual Communications (3)

Prerequisite: Credit or concurrent enrollment in English 101. Available career options, job descriptions, concept generation, visual and creative thinking are covered in this survey course. Discussions of the role of visual communications in society are also included with emphasis on applied aesthetics and interpretation of images and various forms of visual communications. (3 Lec.)

VC 111 History Of Visual Communications (3)

Prerequisite: Credit or concurrent enrollment in English 101. This survey course provides the student with a visual history of art, with emphasis on visual communications, graphic design, illustration, and the graphic arts. The student will gain an understanding of the way in which visual images are perceived and will be able to place current industry practices in context with past design philosophies. (3 Lec.)

VC 115 Applied Design (3)

Basic concepts of two dimensional design are studied including line, shape, space, direction, variety, repetition, proportion, sequence, unity, and color interaction, systems, and theory. Projects are directed toward graphic design application with emphasis placed on communication of theme through a problem solving approach. (2 Lec., 4 Lab.)

VC 122 Copywriting And Business Communications (3)

Prerequisites: English 101, Visual Communications 110 and 111, or demonstrated competence approved by the instructor. Creative writing techniques for advertising are explored in this class. The student will develop and write headlines and copy for advertising, public relations material, proposals, and business communications. Emphasis is placed on creative aspects of writing and concept development toward advertising and marketing aims. (3 Lec.)

VC 123 Graphic Design And Typography (3)

Prerequisites: Art 110 and 114, Visual Communications 110 and 111 or demonstrated competence approved by the instructor. This studio course develops skills in hand lettering and word spacing, introduces the construction of alphabets, typography, paste-up techniques, and layout formulas and rationales. Emphasis is on typography as a design element. (2 Lec., 4 Lab.)

VC 124 Beginning Illustration (3)

Prerequisites: Art 110 and 114, Visual Communications 110 and 111 or demonstrated competence approved by the instructor. This studio course develops skills in a variety of illustration techniques and styles. Techniques for wet and dry media, methods of developing ideas, and requirements of some reproduction processes are included. Laboratory fee. (2 Lec., 4 Lab.)

VC 125 Portfolio Review (2)

Prerequisites: Art 110 and 114, Visual Communications 110, 111 and concurrent enrollment in Visual Communications 123 or 124 or demonstrated competence approved by the instructor. This seminar class prepares the student for the Freshman Portfolio Review. Proper presentation of work, slides, and information on entering local and national design competitions are covered. This class is prerequisite to all advanced Visual Communications courses. (1 Lec., 2 Lab.)

VC 199 Contemporary Topics In Visual Communications (1)

This course emphasizes current topics of interest relating to the rapidly changing field of visual communications. Topics vary based on emphasis and will be annotated in each semester's class schedule. As topics change, this course may be repeated twice for credit. (1 Lec.)

VC 205 Professional Practices (3)

Prerequisites: Visual Communications 123, 124 and 125 or demonstrated competence approved by the instructor. Open to all interested visual art students with prior approval from the instructor. This course covers resume writing and design, marketing and self-promotion for the artist, networking and interview techniques, copyright laws, contracts and legal matters toward good business practices. Emphasis is on working as an artist in a freelance capacity and/or gaining employment as a staff artist. (3 Lec.)

VC 206 Advanced Graphic Design (3)

Prerequisites: Visual Communications 123 and 125 or demonstrated competence approved by the instructor. This advanced course explores continued development of the fundamentals of graphics design and techniques introduced in Visual Communications 123. Psychology of color, color theories, and more complex design problems are explored. Emphasis is on communication through continuity of design and concept. (2 Lec., 4 Lab.)

VC 207 Reprographics (3)

Prerequisites: Visual Communications 123 and 125 or demonstrated competence approved by the instructor. This studio course emphasizes production skills, process camera operation, and the general preparation of art work for reproduction by commercial printing processes. Advanced layout, mechanical and keyline overlays, printing specifications, process and PMS color systems, and paper and ink selections are covered. Laboratory fee. (2 Lec., 4 Lab.)

VC 208 Advanced Illustration (3)

Prerequisites: Visual Communications 124, 125 and 207 or demonstrated competence approved by the instructor. This advanced course continues development of the fundamentals of illustration and techniques introduced in Visual Communications 124. Acrylic, oil, and airbrush painting techniques are covered. Emphasis is on presentation techniques and the development of individual style. Laboratory fee. (2 Lec., 4 Lab.)

VC 209 Advanced Presentations (3)

Prerequisites: Visual Communications 122, 125 and 206 or demonstrated competence approved by the instructor. This advanced course extends coverage of more complex design concepts presented in Visual Communications 206. Project emphasis is on advertising concepts and includes proper presentation techniques and professional portfolio preparation and presentation. Laboratory fee. (2 Lec., 4 Lab.)

VC 213 Beginning Computer Graphics (4)

Prerequisite: Visual Communications 123, 124 and 125 or demonstrated competence approved by the instructor. The knowledge and skills necessary to utilize the computer as a design and production tool are presented. Areas covered are computer graphics systems and software, industry trends, applications, and design concepts. Laboratory fee. (2.5 Lec., 5 Lab.)

VC 214 Beginning Computer Animation (4)

Prerequisite: Visual Communications 213 or demonstrated competence approved by the instructor. A continuation of Visual Communications 213 with emphasis on computer application in graphic design, illustration, television and film. The knowledge and skills necessary to utilize paint systems, digitalizing systems, animation techniques and electronic storyboarding are presented using a variety of hardware and computer graphic software. Laboratory fee. (2.5 Lec., 5 Lab.)

VC 215 Desktop Graphics (4)

Prerequisites: Visual Communications 213 or demonstrated competence approved by the instructor. The knowledge and skills necessary to utilize advanced desktop publishing/presentation software with emphasis on graphic applications is presented. Areas covered are "Desktop Publishing" and related application software, "Desktop Presentations" software and their use in business today. Industry trends, current applications and design problems are addressed. Laboratory fee. (2.5 Lec., 5 Lab.)

VC 219 Special Problems In Computer Graphics (3)

Prerequisites: Visual Communication 213 or demonstrated competence approved by the instructor. This is a special problems study course for organized class instruction in computer graphics. Topics may vary based on emphasis and will be annotated in each semester's class schedule. Examples of topics include: Macintosh Software, IBM Designer Software, etc. This course may be repeated once for credit. Laboratory fee. (2 Lec., 4 Lab.)

VC 290 Design Studio Practicum I (3)

Prerequisites: Sophomore standing and demonstrated competence approved by the instructor. The student serves as a designer, illustrator, computer graphics artist and/or art director in the Brookhaven College Visual Communications Design Studio. Course objectives are individualized to the student. A portfolio is required for approval prior to registration. (8 Lab.)

VC 291 Design Studio Practicum II (3)

Prerequisites: Visual Communications 290 and demonstrated competence approved by the instructor. The student serves as a designer, illustrator, computer graphics artist and/or art director in the Brookhaven College Visual Communications Design Studio. Course objectives are individualized to the student but are different from the student's objectives in Visual Communications 290. A portfolio is required for approval prior to registration. (8 Lab.)

VC 299 Studio Applications In Visual Communications (2)

This course emphasizes current trends in studio applications and techniques relating to the rapidly changing field of visual communications. Topics vary based on emphasis and will be annotated in each semester's class schedule. As topics change, this class may be repeated once for credit. (1 Lec., 2 Lab.)

VC 703 Cooperative Work Experience (3)

Prerequisite: Completion of two courses in Visual Communications and/or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include employer expectations of employees, job site interpersonal relations, tools, and techniques of production in graphic design and illustration. (1 Lec, 15 Lab.)

VC 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in Visual Communications and/or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include employer expectations of employees, job site interpersonal relations, tools, and techniques of production in graphic design and illustration. (1 Lec., 20 Lab.)

VC 713 Cooperative Work Experience (3)

Prerequisites: Completion of two courses in Visual Communications and/or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job quotes, professional resume and portfolio preparation, and art direction responsibilities. (1 Lec., 15 Lab.)

VC 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in Visual Communications and/or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives each semester. The seminar consists of topics which include job quotes, professional resume and portfolio preparation, and art direction responsibilities. (1 Lec., 20 Lab.)

VOCATIONAL NURSING**VN 144 Health Maintenance Through The Life Cycle (3)**

Prerequisite: Admission to the Vocational Nursing Program. This course presents the concepts necessary for general health maintenance including normal growth and development; geriatrics; normal nutrition for all ages; mental health principles; and the prevention and control of disease. (3 Lec.)

VN 145 Nursing Process I (3)

Prerequisite: Admission to the Vocational Nursing Program. Nursing process provides the basic concepts that serve as the foundation for other nursing courses. It includes an introduction to the health care delivery system, nursing as a profession, the nursing process, and communication techniques. The course focuses on meeting the basic physical and psychological needs of patients. A Calculation-Conversion Proficiency Test is a required component of this course. (3 Lec.)

VN 152 Nursing Practice (6)

Prerequisite: Admission to the Vocational Nursing Program. This course emphasizes the scientific principles and nursing competency in nursing skills in simulated laboratory situations that prepare the student to meet the basic needs of patients in clinical situations. Selected clinical experiences enable the student to assess, plan, implement, and evaluate nursing care. Laboratory fee. (24 Lab.)

VN 153 Maternal Child Health (8)

Prerequisites: Completion of Vocational Nursing 144, 145, 152 and all support courses with a minimum grade of "C" or better. This course focuses on the theory, principles and nursing skills related to meeting the basic needs of maternity, newborn, and pediatric patients. Laboratory fee. (7 Lec., 3 Lab.)

VN 156 Nursing Process II (10)

Prerequisites: Completion of Semester I Vocational Nursing courses and also Maternal Child Health for spring admission curriculum plan. This course focuses on the nursing care of patients with various medical, surgical or emotional problems. Drug and diet therapy and clinical skills used in caring for acutely or chronically ill patients are included. Laboratory fee. (8 Lec., 3 Lab.)

VN 157 Nursing Practice II (7)

Prerequisites: Completion of Semester I Vocational Nursing courses and also Maternal Child Health for spring admission curriculum plan. Must be concurrently enrolled in Vocational Nursing 156. This course provides the opportunity for students to use the nursing process and clinical skills to meet the needs of patients experiencing medical, surgical or emotional problems. Supervised practice in the administration of medications is included. (24 Lab.)

VN 158 Maternal Child Health Clinical (4)

Prerequisites: Completion of Vocational Nursing 144, 145, 152 and all support courses with a minimum grade of "C" or better. Concurrent enrollment or completion of Vocational Nursing 153. This course provides clinical experiences focusing on normal prenatal, labor and delivery, postpartum, and newborn nursing care situations. Students also have the opportunity to apply the nursing process to the care of pediatric patients with acute or chronic problems. Laboratory fee. (32 Lab., 6 weeks)

WELDING**WE 101 Basic Welding And Cutting Practices (3)**

This course is for students who need welding on the job, such as in auto body, auto mechanics, or air conditioning. Emphasis is on setting up and using oxyfuel equipment. Cutting up to and including 3/8" mild steel, welding up to and including 1/8" mild steel, and brazing up to and including 16 ga. mild steel are all included. Setting up and using arc welding equipment are also included. Welding 1/4" through 3/8" mild steel in the flat and vertical position using E60's series electrodes is covered. Laboratory fee. (96 Contact Hours)

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 give 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 setup and usage of semiautomatic 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 setup 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 tests 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: Computer Aided Design 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 drawing 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 setup 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 setup 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 setup 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 setup 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)

Prerequisites: 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 704 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in Welding Technology or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences related to the welding field. The seminar consists of group or individual meetings with the instructor, individualized plans for job-related or self improvement (i.e. preparation of job applications, job interview, job site interpersonal relations, employer expectations of employees), or combinations of both. (1 Lec., 20 Lab.)

WE 714 Cooperative Work Experience (4)

Prerequisites: Completion of two courses in Welding Technology or instructor approval. This course combines productive work experience with academic study. The student, employer and instructor will develop a written competency-based learning plan with varied learning objectives and work experiences related to the welding field. The seminar consists of group or individual meetings with the instructor, individualized plans for job-related or self improvement (i.e. preparation of resumes, changing jobs, supervising subordinates, building self-esteem), or combinations of both. (1 Lec., 20 Lab.)

TELECOURSES

ACC 201 Principles Of Accounting I (3)

(Common Course Number ACCT 2301)

This course covers the theory and practice of measuring and interpreting financial data for business units. Basic concepts, principles, and procedures are applied to the following topics: operating cycle, accruals and deferrals, financial statements, internal controls, receivables, inventory, fixed assets, and liabilities. (3 Lec.)

ANT 101 Cultural Anthropology (3)

(Common Course Number ANTH 2351)

This course introduces students to the elements and processes that create culture, society and social interaction. Language, cross-cultural communication, fieldwork, and analysis of multicultural societies are covered. A special emphasis is given to cross-cultural comparison and analysis of basic social institutions on a global scale in order to provide students with an appreciation and understanding of the underlying unity of diverse cultural expressions. (3 Lec.)

(Coordinating Board Academic Approval Number 4502015342)

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.)

(Coordinating Board Academic Approval Number 4511015342)

BUS 105 Introduction To Business (3)

(Common Course Number BUSI 1301)

This course provides an introduction to business operations. Topics include: the business system, legal forms of business, organization and management, business functions (production, marketing, finance, risk management, information systems, accounting) and the environments affecting business (the economy, labor, government regulation, social responsibility, law, international business, and technology). (3 Lec.)

(Coordinating Board Academic Approval Number 5201015125)

BUS 234 Business Law (3)

(Common Course Number BUSI 2301)

This course presents the legal principles affecting business decisions. The law of contracts, agency, sales, negotiable instruments, and secured transactions are specifically covered. (3 Lec.)

(Coordinating Board Academic Approval Number 2201015125)

CD 254 Introduction To Administration Of Child Care Programs (3)

The management of preschool/day care centers is studied. Topics include budgeting, record-keeping, food, health and referral services, and personnel practices. Laboratory fee. (2 Lec., 2 Lab.)

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. TASP remediation and/or preparation may be included. Students may enroll in up to three different sections of CLS during one semester. (1 Lec.)

(Coordinating Board Academic Approval Number 3201015235)

CIS 101 Introduction to Computer Applications And Concepts (4)

This course introduces the use of computers in business organizations, professional activities and personal life. Topics include terminology, hardware components, systems and application software, systems development of applications, and use of contemporary software application packages (such as word processing, spreadsheet, database, and graphics). Laboratory fee. (3 Lec., 3 Lab.)

CIS 103 Introduction to Computer Information Systems (3)

This course presents an overview of computer information systems with an emphasis on business applications. Topics include terminology, systems and procedures, and the role of computers and their evolution in an information-oriented society. The fundamentals of computer problem solving are applied through the use of the BASIC programming language and application software packages. Laboratory fee. (3 Lec., 1 Lab.)

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.)

(Coordinating Board Academic Approval Number 3201045137)

ECO 201 Principles Of Economics I (3)

(Common Course Number ECON 2301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4506015142)

ECO 202 Principles Of Economics II (3)

(Common Course Number ECON 2302)

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.)

(Coordinating Board Academic Approval Number 4506015142)

EGR 107 Engineering Mechanics I (3)

(Common Course Number ENGR 2301)

Prerequisite: Credit or concurrent enrollment in Mathematics 124. This course is a study of the static of particles and rigid bodies with vector mathematics in three dimensional space. Topics include the equilibrium of forces and force systems, resultants, free body diagrams, friction, centroids and moments of inertia, virtual works, and potential energy. Distributed forces, centers of gravity, and analysis of structures, beams, and cables are also presented. (3 Lec.)

(Coordinating Board Academic Approval Number 1411015229)

ENG 101 Composition I (3)

(Common Course Number ENGL 1301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 2304015135)

ENG 102 Composition II (3)

(Common Course Number ENGL 1302)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 2304015135)

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.)

(Coordinating Board Academic Approval Number 2303015335)

GVT 201 American Government (3)

(Common Course Number GOVT 2301)

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. (To ensure transferability, students should plan to take both Government 201 and 202 within the DCCCD.) (3 Lec.)

(Coordinating Board Academic Approval Number 4510025142)

GVT 202 American Government (3)

(Common Course Number GOVT 2302)

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. (To ensure transferability, students should plan to take both Government 201 and 202 within the DCCCD.) (3 Lec.)

(Coordinating Board Academic Approval Number 4510025142)

HST 101 History Of The United States (3)

(Common Course Number HIST 1301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4508025142)

HST 102 History Of The United States (3)

(Common Course Number HIST 1302)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4508025142)

HST 110 The Heritage Of Mexico (3)

(Common Course Number HIST 2380)

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.)

(Coordinating Board Academic Approval Number 4511015342)

HST 112 Latin American History (3)

(Common Course Number HIST 2331)

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.)

(Coordinating Board Academic Approval Number is to be assigned. This is a unique need course.)

HD 100 Educational Alternatives (1)

The learning environment is introduced. Career, personal study skills, educational planning, and skills for living are all included. Emphasis is on exploring career and educational alternatives and learning a systematic approach to decision-making. A wide range of learning alternatives is covered, and opportunity is provided to participate in personal skills seminars. This course may be repeated for credit. (1 Lec.)

(Coordinating Board Academic Approval Number 3201995140)

HUM 101 Introduction To The Humanities (3)

(Common Course Number HUMA 1301)

Introduction to the Humanities focuses on the study and appreciation of the fine and performing arts and the ways in which they reflect the values of civilizations. (3 Lec.)

(Coordinating Board Academic Approval Number 5007035130)

MGT 136 Principles Of Management (3)

This course emphasizes the managerial functions of planning, organizing, staffing, directing, and controlling. Communication, motivation, leadership, and decision making are included. (3 Lec.)

MTH 101 College Algebra (3)

(Common Course Number MATH 1314)

Prerequisites: Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 093. This course is a study of relations and functions including polynomial, rational, exponential, logarithmic, and special functions. Other topics include variation, complex numbers, systems of equations and inequalities, theory of equations, progressions, the binomial theorem, proofs, and applications. (3 Lec.)

(Coordinating Board Academic Approval Number 2701015437)

MTH 102 Plane Trigonometry (3)

(Common Course Number MATH 1318)

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.)

(Coordinating Board Academic Approval Number 2701015337)

MTH 139 Applied Mathematics (3)

The 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.)

NTR 101 Principles of Nutrition (3)

(Common Course Number HECO 1322)

This is an introduction to human nutrition. Topics will include classes, sources, and function of nutrients, digestion and absorption, and metabolism with applications to normal and therapeutic nutritional needs. (3 Lec.)

(Coordinating Board Academic Approval Number 1905025133)

PHI 203 Ethics (3)

(Common Course Number PHIL 2306)

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.)

(Coordinating Board Academic Approval Number 3801015335)

PEH 101 Health For Today (3)

(Common Course Number PHED 1304)

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. This course does not satisfy the physical education activity course requirement. (3 Lec.)

(Coordinating Board Academic Approval Number 5103015128)

PSY 101 Introduction To Psychology (3)

(Common Course Number PSYC 2301)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4201015140)

PSY 201 Developmental Psychology (3)

(Common Course Number PSYC 2314)

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. (3 Lec.)

(Coordinating Board Academic Approval Number 4207015140)

SOC 101 Introduction To Sociology (3)

(Common Course Number SOCI 1301)

This course is a sociological study of social behavior and social structures, emphasizing the importance of a knowledge and appreciation of the multicultural and multiethnic dimensions of society. Topics include cultural elements such as values, norms, beliefs, language, and roles, as well as group processes, social conflict and social change. (3 Lec.)

(Coordinating Board Academic Approval Number 4511015142)

SPA 101 Beginning Spanish (4)

(Common Course Number SPAN 1411)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. (3 Lec., 2 Lab.)

(Coordinating Board Academic Approval Number 1609055131)

SPA 102 Beginning Spanish (4)

(Common Course Number SPAN 1412)

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.)

(Coordinating Board Academic Approval Number 1609055131)

COMMON COURSE NUMBER INDEX

The following DCCCD courses have been assigned Common Course Numbers (CCN #). The Common Course Numbering scheme is an attempt by a number of Texas colleges and universities to identify similar courses by utilizing the same number in order to facilitate the transfer of courses between and among institutions. A course, however, may transfer even if it does not have a Common Course Number.

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 MUS 129 MUAP 1121
 MUS 130 MUAP 1129
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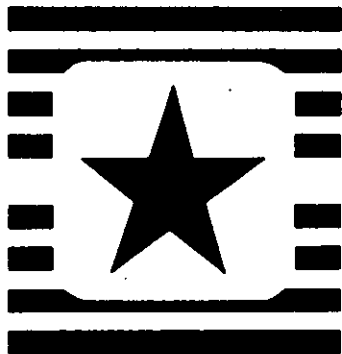
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DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

The R. Jan LeCroy Center for Educational Telecommunications

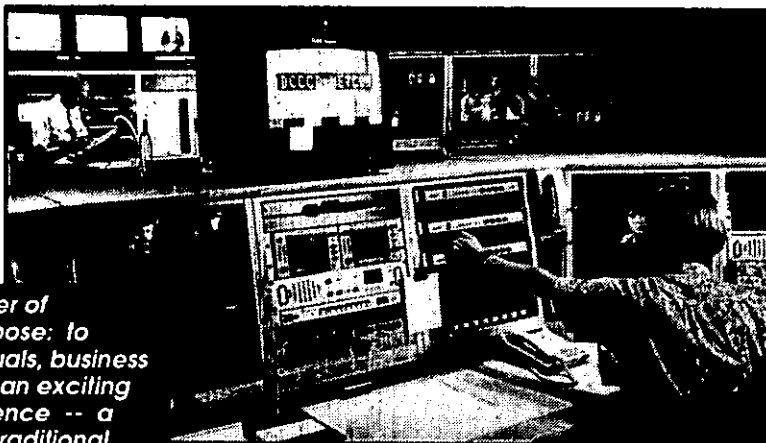
9596 Walnut Street at Richland College
Dallas, TX 75243 ★ (214) 952-0300

The R. Jan LeCroy Center for Educational Telecommunications opened in 1991 to serve *distance learners*, defined as students separated geographically from their instructor, and to provide quality educational television programming to students in Dallas County and beyond. Named for former DCCCD Chancellor Jan LeCroy, the 28,000 square foot center is located adjacent to the Richland College campus in north Dallas, and contains a television studio, two teaching studios, a microwave network, and satellite dishes which send and receive signals.

The LeCroy Center also marks an educational joint venture that is both creative and cost-effective. In addition to DCCCD personnel, it houses staff for the Richardson Independent School District Instructional Television Center, who along with Region 10 Education Services Center jointly provide services through the Regional Instructional Television Consortium, comprising over 60 independent school districts. By providing advanced telecommunications resources to students from kindergarten through college, as well as to business and industry, the Center stands as a model of cooperation, unique in concept, technology and reach.

LECROY CENTER PROGRAMS:

- ★ Dallas Telecourses
- ★ Video Teleconferencing
- ★ DC-Net
- ★ STARLink



The LeCroy Center harnesses the power of technology for almost meaningful purpose: to expand access to learning for individuals, business and communities. In so doing, it adds an exciting new dimension to the learning experience -- a dimension which virtually transcends traditional boundaries of geography and time.

Dallas Telecourses

Television courses make learning possible for thousands of students unable to attend classes on campus. Telecourses are taught using the combination of video programs, textbooks and student study guides. Course instructors are available to students through on-campus orientation sessions, discussion groups and exams. Courses produced by the DCCCD, as well as acquired from other sources, are made available to all DCCCD students. This distance-learning approach has proven most effective as an alternative learning method for many students.

TELECOURSE PRODUCTION - Dallas Telecourses is one of the largest producers of college-credit telecourses in North America. Experienced educators work with professional script writers and television producers to create award-winning telecourses known for their academic excellence.

Several of these telecourses are among the top ten in use by U.S. colleges, and account for approximately 40% of all telecourse enrollments nationally.

TELECOURSE DISTRIBUTION - The DCCCD is a principal supplier of telecourses to the PBS Adult Learning Service and Canadian networks. In Dallas County, more than 160,000 students have enrolled in telecourses in the DCCCD's seven colleges. Through leasing rights, the DCCCD also supplies telecourses to over 1200 of the nation's two- and four-year colleges and universities each semester, as well as institutions in more than 40 foreign countries.

Telecourses also are available to business and industry for employee training and education. Telecourse programming may be broadcast on any VHF, UHF, ITFS or CATV system. Leasing packages/pricing varies, depending upon the individual institutions' needs.

Dallas College Network / DC-Net

TELECLASSES - Under the direction of DC-Net, the LeCroy Center has three Instructional Television Fixed Service (ITFS) channels which are used to deliver live, interactive college credit or non-credit courses to sites in Dallas County, including DCCCD's seven college campuses and to specially equipped business and industry locations.

ITFS is a form of broadcast television which can be received with a special antenna at any line-of-sight point within a 20-mile radius of a transmitter tower.

Interactive classes feature one-way video and two-way audio, allowing the student to view the class on television and to interact with the instructor via a telephone or special desk-top transmitter/receiver. This highly effective method of instruction allows a teacher in-studio to reach students at more than one remote location.

The interactive television teaching studios can be made available to business and industry trainers for special presentations and programs.

CABLE TV - DC-Net is also used to distribute programming via cable television. The DCCCD's cable channel is operated 24 hours a day, featuring telecourses and informational programming, and can be viewed in Dallas, Mesquite, Farmers Branch and Richardson.

SATELLITE SERVICES

Teleconference Downlinking - Teleconferences provide an effective way to participate in regional or national conferences without traveling to the conference site. They are effective in linking groups for in-depth training and interaction on a wide variety of topics. They can be downlinked from KU-band or C-band satellite transmissions and broadcast via DC-Net to viewing facilities in the LeCroy Center, at numerous other DCCCD facilities, and locations throughout Dallas County. Facilities are available to the campuses as well as business and community groups on a contract basis.

Uplinking - Uplinking is the direct transmission of television signals to a satellite, enabling colleges and other downlink sites to receive the signal for participating audiences. Audiences can interact via telephone lines with those at the origination site of the teleconference.

Teleconference Production - The LeCroy Center has complete facilities, including a satellite uplink antenna, television production studios, and experienced educational and technical personnel to produce and deliver live, interactive video teleconferences to downlink sites throughout the country.

The production area is comprised of one large studio and two smaller instructor studios. Another, 1200 square-foot studio, for live teleconferencing and cable productions, is shared by both DCCCD and RITV.

STARLink

STARLink is a satellite-based teleconference training network and serves as a vital link in the educational telecommunications systems supporting Texas community colleges and technical institutes. Starlink's primary mission is to help technical/vocational faculty and staff keep their knowledge and skills current by producing teleconferences that address both broad educational issues and specific technical/vocational issues.

STARLink also works with businesses and state agencies in delivering training throughout the state.

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

Bill J. Priest Institute for Economic Development

1402 Corinth Street • Dallas, Texas 75215
565-5700

1993-94 PROGRAMS

Edmund J. Kahn Job Training Center

Business and Professional Institute

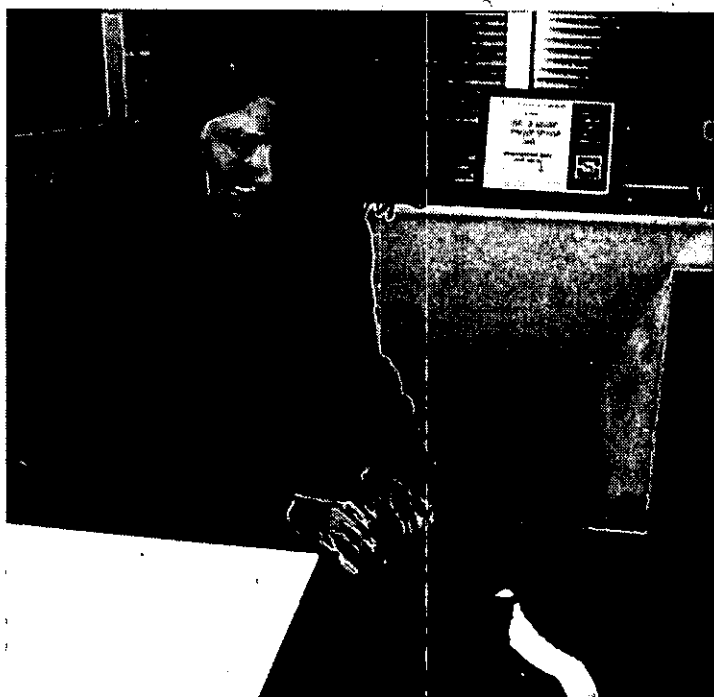
Business Incubation Center

**North Texas Small Business
Development Center (SBDC)**

- Dallas Small Business Development Center
- Center for Government Contracting SBDC
- International Business Center SBDC
- Technology Assistance Center SBDC



The Bill J. Priest Institute for Economic Development



M&M Reporting is one of many businesses housed in the Business Incubation Center.



Job Training Center students work to improve their typing skills.

The Bill J. Priest Institute for Economic Development was created as a combined effort of the Dallas County Community College District and the private business sector to play a significant role in the economic development of Dallas County. The Institute represents a long-term commitment to providing education and training to the citizens of Dallas County.

Opened in the spring of 1989, the \$9.2 million, 150,000 square foot training complex is home to many of the DCCCD's programs which serve business and industry. The Institute was named for Dr. Bill J. Priest, founding Chancellor of the Dallas County Community College District and primary architect of the District's master educational plan.

The Institute has become a key partner in supporting economic development efforts for the Metroplex. Its distinct, yet inter-related, programs include:

Business and Professional Institute • Edmund J. Kahn Job Training Center • Business Incubation Center • Dallas Small Business Development Center (SBDC) • Center for Government Contracting SBDC International Business Center SBDC • Technology Assistance Center SBDC

BUSINESS & PROFESSIONAL INSTITUTE

The Business and Professional Institute (BPI) provides a comprehensive array of training programs customized to meet the needs of business and industry. Contract training programs are flexible and cost-effective, with courses offered days, weekends or evenings on-site at businesses or at the Bill J. Priest Institute for Economic Development.

The Business and Professional Institute specializes in Continuous Quality Improvement, Workplace Literacy, corporate computer training, and management and supervision training, including cultural diversity in the workplace and building international business bridges.

All parameters of BPI contract training can be adjusted to meet an organization's special requirements, with costs calculated on an hourly basis. Training consultants work closely with businesses to ensure customer satisfaction.

THE EDMUND J. KAHN JOB TRAINING CENTER

The Edmund J. Kahn Job Training Center is committed to offering quality short-term intensive vocational education and training that is competency-based and designed to prepare graduates for entry level jobs with local employers. Programs are designed for persons interested in retraining or upgrading skills and for those entering the job market for the first time. All program offerings are employer-directed to meet the job market demands in the metroplex area.

Financial assistance is available for many students through Job Training Partnership Act (JTPA) funding — through the Private Industry Council of Dallas — and Texas Public Education Grants (TPEG). Students have access to free, secured parking as well as many support services.



JTC students train on state-of-the-art computers.

WE WANT YOU TO SUCCEED!

If you regret not finishing high school or have ever wished you were trained in a trade or profession so that you could get a more challenging, better-paying job, the Edmund J. Kahn Job Training Center can help you.

Education is the key to success — and education is what the Job Training Center is all about. Our standard of success is the high number of JTC graduates who are placed in training-related positions. When you complete your training, you will receive a Certificate of Completion.



Instructors work closely with JTC students.

If you wish to continue your studies at one of the Dallas County Community Colleges, some of your course work can be applied towards earning an Associate Degree in Applied Sciences.

Class schedule for training programs:

Classes meet from 8:15 a.m. to 3:20 p.m. Monday through Friday. Our training programs are not just lectures and books — they include hands-on training in your selected job area. You might even work for a small business housed in the same complex as part of your training experience. Programs are individualized to help you train at your level of ability. Most training programs take four to six months to complete.

Enrollment:

To apply for any of the Job Training Center's programs, come by the admissions office on the first floor of the Bill J. Priest Institute for Economic Development to fill out an application. Admissions' hours are 8:30 a.m. to 4 p.m. Monday through Friday. Training courses start monthly throughout the year, so once you are accepted, you won't have to wait long before you can begin training for a new career.

Support services:

Before beginning a job training program, counselors may advise you to enroll in a basic skills/GED program. They are prepared to assist you in deciding which types of jobs would best suit you and are also available as a source for information on financial aid and assistance with tuition, books, transportation and child care.

The JTC's Placement Office can help you successfully look for and get a job. Placement Specialists provide training in self-directed job search, resume preparation and also offer an internship program. The Job Placement Lab is the source of numerous job vacancy leads and job search materials. Students are provided on-going job search assistance from orientation through successful placement in a training-related employment opportunity.

On-site child care:

One of our most exciting support services for qualifying JTC students is a child care center located within the Institute. Operated by Child Care Dallas, the center can care for up to 30 children. Professional child care in this bright, clean environment allows parents who are job training center students to see their children during class breaks or at lunch time. Referral support is also available for other area child care centers.

The JTC offers training programs in the following areas:

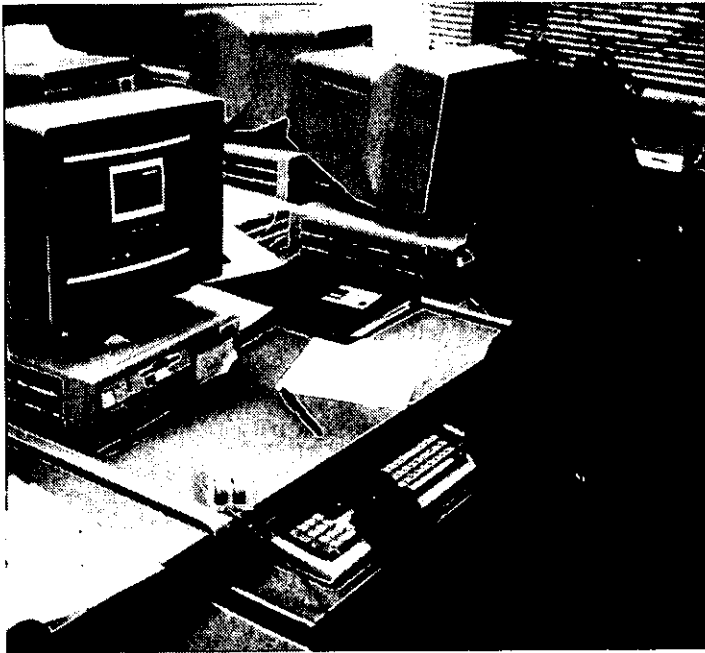
ACCOUNTING CLERK - This program is designed to teach basic accounting concepts. Upon completion of the course, students will be able to journalize and post financial data, prepare basic financial statements, record financial activities and journal reconciliations, compute and record payroll information, and input financial data on the personal computer using Lotus 1-2-3 and WordPerfect 5.1.

Graduates are qualified for entry-level accounting and book-keeping positions such as accounting clerk, accounts receivable clerk, accounts payable clerk, payroll clerk, and general ledger clerk.

ENTRY LEVEL AUTOMOTIVE SERVICE TECHNICIAN - Students are introduced to basic service and repair procedures and learn to troubleshoot, diagnose and repair various vehicle systems using test equipment and tools. Chassis and brakes, tune-ups and emissions, transmissions and differentials, air conditioning and heating, and electrical systems are topics covered in this program. A high school diploma or GED and a valid Texas driver's license are required.

Upon completion of the program, graduates are qualified to serve in positions such as make-ready mechanic; tune-up specialist; mechanic's helper; parts/service assistant; and front-end specialist. Mechanic helpers work in automotive service centers, tune-up shops, brake and alignment shops, auto dealerships and gas stations.

DATA ENTRY OPERATOR - This program provides theory, application and intensive hands-on training in software packages such as WordPerfect 5.1, Lotus 1-2-3, Microsoft Windows 3.1, dBase III Plus and DOS. Students learn data entry concepts which include keying a variety of source documents, flowcharting and creating BASIC programs. Students also learn how to properly produce a variety of business forms including letters, envelopes, memorandums, reports and invoices.



Students are introduced to many software packages.

The program is designed to develop skills and knowledge related to the use of computerized information processing systems for business. Graduates are qualified for employment in one of the following or related categories: software applications operator, information processing operator, personal computer operator, secretary, word processing operator, receptionist, PC data entry operator, CRT operator, data control clerk or system utilities operator.

MEDICAL OFFICE CLERK - This program prepares students for a job in medical office administrative services. Upon completion of this course, students will be able to use medical terminology correctly; identify body systems and related terminology; understand medical ethics and medical law; discuss patient's Bill of Rights; perform billing and collection tasks on Lotus 1-2-3; produce medical correspondence using WordPerfect 5.1; transcribe medical information; generate a report using database management; operate a personal computer and printer; maintain files and other medical records; operate an electric calculator by touch; communicate effectively and professionally with others; and use time management techniques.

WORD PROCESSING OFFICE ASSISTANT - Students learn how to create, save, edit and print a document in this course, which also covers basic proofreader marks, spelling, and typing from handwritten and typewritten documents. The course covers intermediate and advanced typing which consists of business letters, manuscripts, and tables using WordPerfect 5.1. Graduates are prepared for positions such as word processing operator, junior secretary, clerk typist and receptionist.

GED PREPARATION - Students upgrade basic skills through this computer-assisted remedial education and life-coping skills program. This program serves out-of-school youth and adults age 17 and over who do not qualify for vocational training because they lack a high school diploma or GED.

CONTINUE YOUR EDUCATION!

The Job Training Center also offers short-term, non-credit continuing education courses such as Intro to PC, Lotus 1-2-3, WordPerfect 5.1, GED Reading, GED Writing and GED Math. Courses are offered in the evening, and Continuing Education Units are awarded for all continuing education classes. Registration is open from 8 a.m. to 4:30 p.m. Monday through Friday in the JTC Admissions Office. New classes begin each month.

BUSINESS INCUBATION CENTER

The Business Incubation Center (BIC) offers cost-shared support services and a quality environment in which businesses can physically house their operations. A business which houses its offices elsewhere can become an affiliate of the Incubation Center by contracting to use the support services. Affiliates are not required to move on site.

Support services available to BIC occupants include:

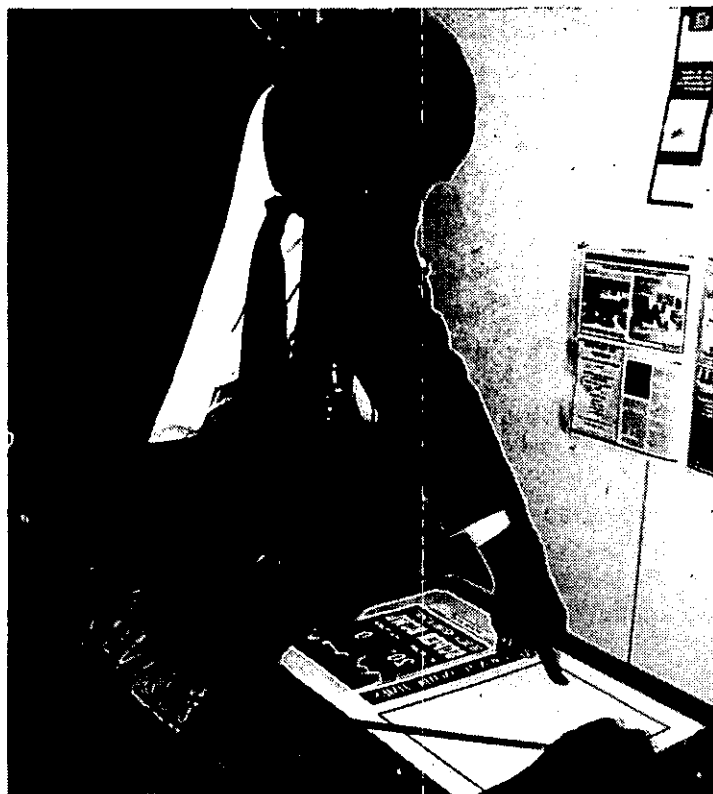
- Computer Center
- Clerical Assistance Center
- Copiers
- Covered Parking
- Telephone Message Center
- Mail/UPS/Fax
- Easy access to SBDC programs and services



BIC businesses cover a wide range of fields.

SMALL BUSINESS DEVELOPMENT CENTER PROGRAMS

The Small Business Development Center (SBDC) is currently the largest management assistance program serving the small business sector in the U.S. SBDCs



BIC businesses, such as the Black Economic Times, enjoy easy access to services offered through SBDC programs located within the same facility.

counsel and train business people in management, financing and operating small businesses, providing comprehensive information services and access to experts in a variety of fields.

The Small Business Development Center (SBDC) programs of the Bill J. Priest Institute for Economic Development are made possible by a partnership between the Dallas County Community College District and the Small Business Administration. The four SBDC subcenters located in Dallas are part of the North Texas SBDC network which comprises 16 field centers across 49 North Texas counties. The North Texas SBDC regional office, one of four regional SBDCs in Texas which oversee SBDC activity, is also located within the Bill J. Priest Institute for Economic Development.

Through low-cost seminars and free one-on-one counseling, SBDC programs focus on specific information and assistance business owners need in order to strengthen and/or expand their business. In order to provide targeted information and assistance, each program has a special emphasis:

The Center for Government Contracting SBDC assists businesses that are seeking federal, state, county and municipal contracts. The center aids any business that can improve the economic environment of Texas. The center provides an on-line computer service of bid sources along with workshops and seminars which cover the basics of doing business with governmental and other public entities.

The Dallas Small Business Development Center provides a twofold informational program to the business community. Training, via seminars/workshops, features professionals from the business community presenting topics from their areas of expertise, specifically in the areas of business plan development, market planning, and financial and operational management. Counseling in a one-on-one format is provided for more in-depth information.

The Dallas SBDC works with the U.S. Small Business Administration, chambers of commerce, business groups and other entities to provide as complete a set of services as possible to meet the changing needs of the small business community.

The International Business Center SBDC, located in the World Trade Center, 2050 Stemmons Frwy., Suite 150, targets businesses interested in international trade. Through a cooperative effort with the U.S. Department of Commerce, the International Business Center offers seminars, workshops and video training modules on exporting, as well as individual counseling and a wide variety of research materials and referral services.

The Technology Assistance Center SBDC assists in the commercialization of new and innovative products and processes through the vehicle of technology transfer. The center offers a wide variety of seminars covering such topics as intellectual property protection, licensing, new product development strategies, flexible manufacturing, and NASA search resources. Through one-on-one counseling, the Center assists innovators in strategic alliances, licensing for royalties and venturing.

In addition, the center contracts assistance from Texas A&M's Engineering Experiment Station to provide information on technical and market feasibility, prototype development and product testing. The center also assists small manufacturing firms through contracts with the University of Texas at Arlington's Automation & Robotics Research Institute.



The Technology Assistance Center assists innovators with the inventions process.

BILL J. PRIEST INSTITUTE FOR ECONOMIC DEVELOPMENT

ADMINISTRATIVE OFFICES AND STAFF

Provost	Glen Bounds	565-5801
Vice Provost of Business Services	Mike E. Howard	565-5717
Vice Provost of Instructional Services	Jim Picquet	565-5711
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Director of Testing	Velma Hargis	565-5773
Director of Public Information	Kristi Day	565-5803

BUSINESS AND PROFESSIONAL INSTITUTE.....565-5806

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Training Consultant	Bob Arnold	565-5805
Sr. Training Consultant	Janice Downey	565-5811
Training Consultant	Larry Johnson	565-5812
Sr. Training Consultant	MaryAnn Miller	565-5810

CHILD CARE CENTER.....565-5751

Director	Etta Smith	565-5752

EDMUND J. KAHN JOB TRAINING CENTER.....565-5711

Coordinator of Instructional Services	Allen Espree	565-5712
Admissions/Registrar	Mike Henderson	565-5724
Counseling	Alecia Cobb	565-5731
Placement Services	Melanie Gill	565-5740

BUSINESS INCUBATION CENTER.....565-5851

Director	Bonny Franke	565-5851
Coordinator of Business Services	Mark Keeth	565-5853

NORTH TEXAS SMALL BUSINESS DEVELOPMENT CENTER (SBDC).....565-5837

Assistant Regional Director	Liz Klimback	565-5837
Texas Marketplace Coordinator	Toni Sanchez	565-5832

DALLAS SMALL BUSINESS DEVELOPMENT CENTER.....565-5836

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Coordinator of Counseling	Neil Small	565-5834
Coordinator of Training	Jeff Blatt	565-5825

CENTER FOR GOVERNMENT CONTRACTING SBDC.....565-5842

Director	Vera Tanner	565-5842

INTERNATIONAL BUSINESS CENTER SBDC.....747-1300

Director	Beth Huddleston	747-1300
Coordinator of Training	Elizabeth Harris	747-1300

TECHNOLOGY ASSISTANCE CENTER SBDC.....565-5822

Director	Ray Bell	565-5822
Coordinator of Training	Pamela Speraw	565-5860

BILL J. PRIEST INSTITUTE FOR ECONOMIC DEVELOPMENT

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