Dallas County Community Colleges 1981/82

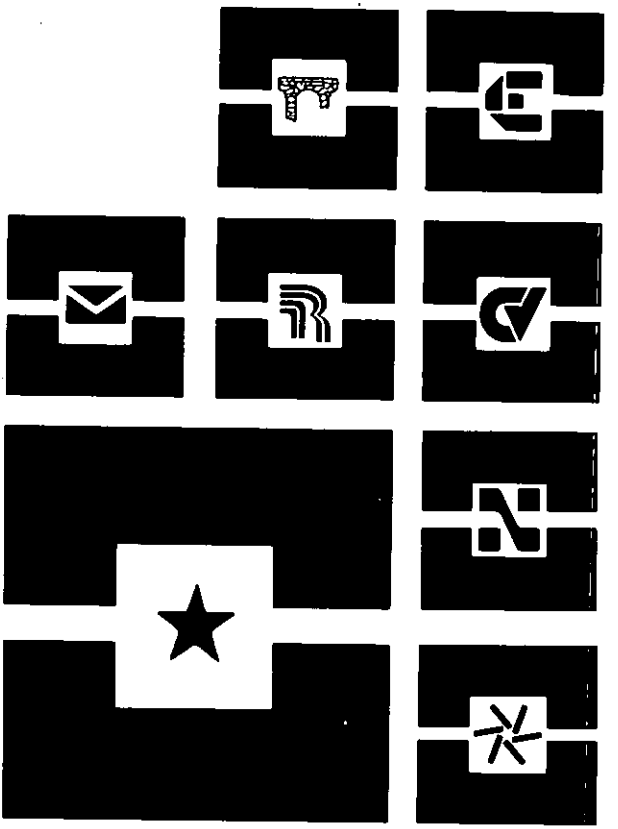


Dallas County Community College District

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1981-1982 Catalog

For the Seven
Member Colleges
of the Dallas County
Community College
District



Brookhaven College
3939 Valley View Lane
Farmers Branch, Texas 75234

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 MacArthur Blvd.
Irving, Texas 75062

Richland College
12800 Abrams Road
Dallas, Texas 75243

This catalog contains policies, regulations, and procedures in existence at the time this publication went to press. The District Colleges reserve the right to make changes at any time to reflect current Board policies, administrative regulations and procedures, and applicable State and Federal regulations. This catalog is for information purposes and does not constitute a contract.

ACADEMIC CALENDAR, 1981-82

SUMMER SESSIONS, 1981

First Session

May 29 (F)	Registration
June 1 (M)	Classes begin
June 2 (T)	Last day for tuition refund
June 4 (R)	4th class day
June 29 (M)	Last day to withdraw "W"
July 3 (F)	Independence Day holiday
July 6 (M)	Final Examinations
July 6 (M)	Session closes

Second Session

July 7 (T)	Registration
July 9 (R)	Classes begin
July 10 (F)	Last day for tuition refund
July 14 (T)	4th class day
Aug. 6 (R)	Last day to withdraw "W"
Aug. 12 (W)	Final examinations
Aug. 12 (W)	Session closes

FALL SEMESTER, 1981

Aug. 17 (M)	Faculty reports
Aug. 18-20 (T-R)	Registration
Aug. 21 (F)	Faculty development
Aug. 22 (S)	Saturday classes begin
Aug. 24 (M)	Classes begin
Aug. 31 (M)	Last day for tuition refund
Sept. 4 (F)	12th class day
Sept. 7 (M)	Labor Day holiday
Nov. 26 (R)	Thanksgiving holidays begin
Nov. 30 (M)	Classes resume
Dec. 4 (F)	Last day to withdraw "W"
Dec. 11 (F)	Last day of classes
Dec. 12 (S)	Final exams., Sat. classes
Dec. 14-17 (M-R)	Final examinations
Dec. 17 (R)	Semester closes

SPRING SEMESTER, 1982

Jan. 11 (M)	Faculty reports
Jan. 12-14 (T-R)	Registration
Jan. 15 (F)	Faculty development
Jan. 16 (S)	Saturday classes begin
Jan. 18 (M)	Classes begin
Jan. 25 (M)	Last day for tuition refund
Jan. 29 (F)	12th class day
Feb. 18 (R)	District Conference Day
Feb. 19 (F)	Faculty development
Mar. 15 (M)	Spring break begins
Mar. 19 (F)	Spring holiday for all employees
Mar. 22 (M)	Classes resume
Apr. 9 (F)	Easter holidays begin
Apr. 12 (M)	Classes resume
May 7 (F)	Last day to withdraw "W"
May 14 (F)	Last day of classes
May 15 (S)	Final exams., Sat. classes
May 17-20 (M-R)	Final examinations
May 20 (R)	Graduation
May 20 (R)	Semester closes

SUMMER SESSIONS, 1982

First Session

May 27 (R)	Registration
May 31 (M)	Memorial Day holiday
June 1 (T)	Classes begin
June 2 (W)	Last day for tuition refund
June 4 (F)	4th class day
June 29 (T)	Last day to withdraw "W"
July 5 (M)	Independence Day holiday
July 6 (T)	Final examinations
July 6 (T)	Session closes

Second Session

July 8 (R)	Registration
July 12 (M)	Classes begin
July 13 (T)	Last day for tuition refund
July 15 (R)	4th class day
Aug. 9 (M)	Last day to withdraw "W"
Aug. 13 (F)	Final examinations
Aug. 13 (F)	Session closes

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DALLAS COUNTY COMMUNITY COLLEGE DISTRICT BOARD OF TRUSTEES
Seated from left: Jerry Gilmore, chairman; Pattie T. Powell; Robert H. Power. Standing from left: Bob Beard; Bart Rominger, vice-chairman; J.D. Hall; and Don Buchholz.

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT ADMINISTRATORS

Chancellor	R. Jan LeCroy
Vice Chancellor of Business Affairs	Walter L. Pike
Asso. Vice Chancellor of Business Affairs	Ted Hughes
Vice Chancellor of Educational Affairs	Terry O'Banion
Asso. Vice Chancellor of Educational Affairs	Ruth Shaw
Asst. Chancellor of Planning and Development	Bill Tucker
Special Assistant to the Chancellor	Jan Sanders
Director of Development	Carole Shlipak
Legal Counsel	Robert Young
Director of Computer Services	Jim Hill
Director of Facilities Management	Stan Pritchard
Director of Instructional Television	Rodger A. Pool
Director of Occupational Education	Linda Coffey
Director of Personnel	Quincy Ellis
Director of Planning, Marketing, Research	Colin Shaw
Director of Public Information	Claudia Robinson
Director of Purchasing	Mavis Williams
Director of Relations with Schools and Colleges	Johnyce Alders
Director of Resource Development	Bonny Franke
Director of Technical Services	Paul Dumont

General Information



For the Seven
Member Colleges
of the Dallas County
Community College District

I. GENERAL INFORMATION

HISTORY OF THE DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

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

The growth of the District into an educational system with such impact was not by chance. In May, 1965, voters created the Dallas County Junior College District and approved a $41.5 million bond issue to finance it. The next year the District's first college, El Centro, began operation in downtown Dallas.

Eastfield College and Mountain View College enrolled their first students in 1970, and the plans for a multi-campus district became a reality. Richland College became the District's fourth college in 1972.

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



Dr. R. Jan LeCroy
Chancellor

DISTRICT PHILOSOPHY AND GOALS

Since 1972, the District has been known as the Dallas County Community College District. The name shows that the District has outgrown the term "junior college."

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

The needs, abilities, and goals of each student are considered important. The focus is on creating an educational program for the individual rather than squeezing or stretching the individual to fit an "educational mold."

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

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

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

Additional programs are available for the high school student, dropout, and others with special needs.

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

DISTRICT RESPONSIBILITIES

To carry out the District philosophy, the colleges obviously must offer a range of programs and courses, including guidance services. These programs and courses must help each individual attain a high level of technical competence and a high level of cultural, intellectual, and social development.

In addition, high professional standards for the academic staff must be maintained within a framework prescribed by the Board of Trustees. At the same time, the program and organization of each college must make maximum use of faculty and facilities.

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

Creativity and flexibility are therefore fostered at the District level and on each campus.

LEAGUE FOR INNOVATION

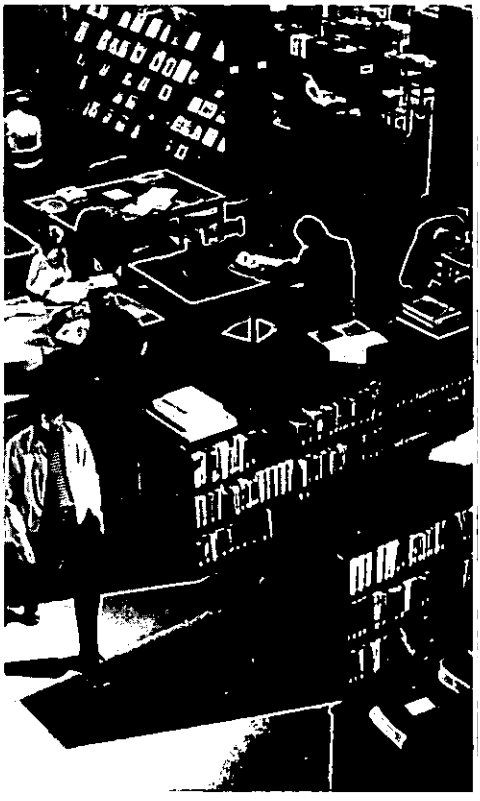
The Dallas County Community College District is a member of the League for Innovation in the Community College. The League is composed of 16 outstanding community college districts throughout the nation. Its purpose is to encourage innovative experimentation and the continuing development of the community college movement in America. Membership commits the District to research, evaluation, and cooperation with other community college districts. The goal is to serve the community with the best educational program and the fullest use of resources.

EQUAL EDUCATIONAL AND EMPLOYMENT OPPORTUNITY POLICY

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

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

In compliance with the Family Educational Rights and Privacy Act of 1974, the College may release information classified as "directory information" to the general public without the written consent of the student. Directory information includes: (1) student name, (2) student address, (3) telephone number, (4) dates of attendance, (5) educational institution most recently attended, and (6) other information, including major field of study and degrees and awards received. A student may request that all or any part of the directory information be withheld from the public by giving written notice to the Registrar's Office during the first twelve class days of a fall or spring semester or the first four class days of a summer session. If no request is filed, information is released upon inquiry.



No telephone inquiries are acknowledged; all requests must be made in person.
No transcript or academic record is released without *written consent* from the student stating the information to be given, except as specified by law.

STUDENT CONSUMER INFORMATION SERVICES

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

STANDARDS OF CONDUCT

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

II. ADMISSIONS AND REGISTRATION

GENERAL ADMISSIONS POLICY

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

ADMISSION REQUIREMENTS

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

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

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

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

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

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

a. complete a personal interview with the international student counselor and receive approval from the College administration,
b. present TOEFL (Test of English as a Foreign Language) test scores of 525 or higher,
c. be proficient in English and provide a letter in their own handwriting indicating educational and vocational plans,
d. show evidence of sufficient financial support for the academic year,
e. complete a health information form,
f. fulfill all admission requirements for international students at least 30 days prior to registration,
g. enroll as a full-time student (minimum of 12 credit hours),
h. supply official transcripts for all previous academic work with a minimum "C" average.

Contact the Admissions Office for info.

APPLICATION AND ADMISSION PROCEDURES

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

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

a. An official application, available from the Admissions Office.
b. An official transcript from the last school (high school or college) attended. Students seeking certificates or associate degrees must submit official transcripts of all previous college work. The College's accrediting agency requires transcripts, and the College uses them in program advisement.
c. Written proof from a medical office of (1) a negative tuberculin skin test or chest X-ray, (2) a polio immunization if the applicant is under 19 years of age, and (3) a diptheria/tetanus injection within the last 10 years. This medical proof is required by state law (Senate Bill 27).

Once the above materials are submitted, the applicant is assigned a place in registration. All applicants may select only those classes available when they register. Students may enroll in certain courses at times other than regular semester registration. See Flexible Entry Courses in this catalog and contact the Registrar's Office for additional information.

TUITION

Tuition is charged on a sliding scale according to the number of credit hours for which a student is enrolled and the student's place of legal residence.



Tuition is subject to change without notice by the Board of Trustees or the Texas Legislature.

ADDITIONAL FEES

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

SPECIAL FEES AND CHARGES

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

Physical Education Activity Fee: $5 a semester.

Bowling Class Fee: Student pays cost of lane rental.

*Private Music Lesson Fee:** $35 for one hour per week (maximum) for one course, $20 for one half hour per week.

Audit Fee: The charge for auditing a course is the same as if the course were taken for credit, except that a student service fee is not charged.

Credit by Examination: Fee of $20 per examination per course.**

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

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT
TUITION AND STUDENT SERVICES FEE
FALL AND SPRING SESSIONS

Semester	Dallas County*			Out-of District**			Out-of State, or Out-of-Country***		
Cr. Hours	Tuition	Fee	Total	Tuition	Fee	Total	Tuition	Fee	Total
1	25	1	26	25	1	26	40	1	41
2	25	2	27	40	2	42	80	2	82
3	25	3	28	60	3	63	120	3	123
4	28	4	32	80	4	84	160	4	164
5	35	5	40	100	5	105	200	5	205
6	42	6	48	120	6	126	240	6	246
7	49	7	56	140	7	147	280	7	287
8	56	8	64	160	8	168	320	8	328
9	63	9	72	180	9	189	360	9	369
10	70	10	80	200	10	210	400	10	410
11	75	10	85	205	10	215	440	10	450
12	80	10	90	210	10	220	480	10	490
13	85	10	95	215	10	225	520	10	530
14	90	10	100	220	10	230	560	10	570
15	95	10	105	225	10	235	600	10	610
16	100	10	110	230	10	240	640	10	650
17	105	10	115	235	10	245	680	10	690
18	110	10	120	240	10	250	720	10	730
19	115	10	125	245	10	255	760	10	770
20	120	10	130	250	10	260	800	10	810

TUITION SCHEDULE FOR SUMMER SESSIONS

Semester Cr. Hours	Dallas County*	Out-of-District**	Out-of-State, or Out-of-Country***
1	25	30	45
2	25	60	90
3	30	90	135
4	40	120	180
5	50	150	225
6	60	180	270
7	64	184	310
8	68	188	350
9	72	192	390

*The Dallas County Community College District Board of Trustees has waived the difference in the rate of tuition for non-resident and resident students for a person or his dependent, who owns property which is subject to ad valorem taxation by the District.

**The DCCCD Board of Trustees defines an Out-of-District student as: (1) a student eighteen (18) years of age or older who resides in a Texas county other than Dallas County; (2) a student who is less than eighteen (18) years of age whose parents do not live in Dallas County.

***A non-resident student is hereby defined to be a student less than eighteen (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 (12) months immediately preceding the date of registration; or a student of eighteen (18) years of age who resides out of the state or who has not been a resident of the state twelve (12) months.

These definitions are intended as a guideline for the student. The student is referred to the Director of Admissions for a more complete definition.

The tuition schedule above is subject to change without notice by action of the District Board of Trustees or the State of Texas.

REFUND POLICY

Student tuition and fees provide only a fraction of the cost of education. When students enroll in a class, they reserve places which cannot be made available to other students unless they officially drop the class during the first week of the semester. Also, the original enrollment of students represents a sizable cost to the District whether or not they continue in the class. Therefore, a refund is made only under the following conditions:

a. No 100% refund is granted unless College error is involved.
b. An 80% refund of tuition and fees may be obtained through the date noted in the college calendar. An 80% refund may be given through the first two class days of a six-week summer session or fast track semester. Refunds for Flexible Entry Courses are considered through completion of the second day of class from the date of enrollment.
c. No refund is given for advanced placement or College Level Examination Program (CLEP) tests.
d. A physician's statement must be submitted along with petitions when medical reasons account for withdrawal. Requests for refunds must be submitted before the end of the semester for which the refund is requested.
e. No refund of less than $4 for tuition and fees is made.

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

RETURNED CHECKS

Checks returned to the Business Office must be paid with cash or a cashier's check within the time limits prescribed by the notification letter. An additional fee is added for returned checks. If a check for tuition payment is returned, the student's enrollment is considered void.

ADVISEMENT PROCEDURES

Individual assessment of skill levels is an important part of student success in college. Therefore, the District has provided an assessment process available through the counseling centers at each of the District colleges. Information gained from assessment is used to advise students in the selection of courses which can provide the best possible opportunity for academic success. All students are required to go through an assessment process and should schedule it prior to initial registration

Developmental studies are available for students who need skill development in reading, writing, or math. Test data, transcripts, previous work, and counseling may be used to determine placement in this program.

COURSE PREREQUISITES

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

CHANGE OF SCHEDULE

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

NON-CREDIT STUDENT (AUDIT)

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

TRANSFER OF CREDITS

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

DROPPING A COURSE OR WITHDRAWING FROM COLLEGE

To drop a class or withdraw from the College, students must obtain a drop or withdrawal form and follow the prescribed procedure.



Should circumstances prevent a student from appearing in person to withdraw from the College, the student may withdraw by mail by writing to the Registrar. No drop or withdrawal requests are accepted by telephone. Students who drop a class or withdraw from the College before the semester deadline receive a "W" (Withdraw) in each class dropped. The deadline for receiving a "W" is indicated on the academic calendar. After that time students receive a performance grade in each course.

ADDRESS CHANGES AND SOCIAL SECURITY NUMBER

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

III. ACADEMIC INFORMATION

DEGREE REQUIREMENTS

The College confers the Associate in Arts and Sciences Degree upon students who have completed all general and specific requirements for graduation. Each degree candidate must earn the last 15 hours as a resident student in the District colleges or accrue 45 hours in residence. The degree is granted by the District college at which the student took the last 15 hours or where the majority of hours were accrued.
Correspondence work must be approved by the Registrar for graduation credit. No more than one-fourth of the work required for any degree or certificate may be taken by correspondence.

ASSOCIATE IN ARTS AND SCIENCES DEGREE

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

- English 101-102 plus an additional 6 hours of English for a total of 12 credit hours in English.
- 8 credit hours in Laboratory Science (Music majors will substitute Music 101-102 for this requirement.)
- 12 credit hours of History 101-102 and Government 201-202. No substitutions are allowed. Only 3 credit hours of history or 3 credit hours of government may be earned through credit by examination. CLEP credit may not be used to meet this requirement.
- 3 credit hours in Humanities, selected from Theater 101, Art 104, Music 104, Humanities 101 or Philosophy 102.
- A maximum of 4 physical education activity hours may be counted as credit toward requirements for graduation. Courses numbered 99 and below cannot be included to meet degree or certificate requirements. Music 199, Art 199, and Theater 199 may not be counted toward the 60 hour minimum. All students planning to transfer to a four-year institution may complete their four semester requirements in physical education during their freshman and sophomore year. Students are urged to consult the catalogs of the institutions to which they may transfer for their special requirements. These catalogs should be used by students and advisors in planning programs.

ASSOCIATE IN APPLIED ARTS AND SCIENCES DEGREE AND CERTIFICATE CAREER PROGRAMS

Students must have a minimum of 60 credit hours and a grade point average of at least "C" (2.0) to receive the Associate in Applied Arts and Sciences Degree. For some programs, more than 60 credit hours are required. All prescribed requirements for the specific Technical/Occupational Program in which the student is enrolled must be completed. These programs may also have other criteria in addition to degree requirements. See the Technical/Occupational Programs section of this catalog for a more detailed explanation.
The requirements for certificates are detailed under specific programs listed in the Technical/Occupational Programs section of this catalog. A "C" (2.0) grade point average is required.
A maximum of 4 physical education activity hours may be counted as credit toward graduation. Courses numbered 99 and below may not be included to meet degree or certificate requirements.
Music 199, Art 199, and Theatre 199 may not be counted toward the 60-hour minimum.

PROCEDURE FOR FILING DEGREE AND CERTIFICATE PLANS AND FOR GRADUATION

Students should request a degree plan from the Registrar's Office at the end of their freshman year.
Official transcripts of all previous college work must be on file at the time of request for degree plans. Students following a one-year certificate program should request an official plan during the first semester of their enrollment. Application for the granting of the degree or certificate should be filed in the Registrar's Office prior to the deadline announced by the Registrar.
An annual graduation ceremony is held at the conclusion of the spring semester. Participation is ceremonial only and confers on a student no rights to a degree. January and August graduates may participate in the next commencement if they desire, but they are not required to do so. The Registrar's Office should be notified if the student wishes to participate. Instructions for graduation are mailed to all candidates thirty days prior to commencement.
Within five years of initial enrollment a student may graduate according to the catalog requirements in effect at the time of first enrollment or any subsequent catalog provided the requisite courses are still being offered.

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

RECOMMENDED ACADEMIC LOAD

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



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

CLASS ATTENDANCE

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

Instructors are responsible for describing attendance policy and procedures to all students enrolled in their classes.

As a general rule, when absences become so excessive as to endanger the student's class standing, the instructor will file a drop notice. The student is notified by a letter from the Registrar's Office sent to the student's address of record. The effective drop date is stated in the letter. A student who desires to remain in class must contact the instructor within the time specified in the instructor's letter. With the instructor's approval, a student may be reinstated. Students dropped for excessive absences prior to the published withdrawal deadline receive a grade of "W". Students who do not attend class during the first twelve days of a long semester or the first four days of a summer session are dropped.

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
P	Progress	Not Computed
F	Failing	0 points
I	Incomplete	Not Computed
W	Withdrawn	Not Computed
CR	Credit	Not Computed

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

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

$35 \div 12 = 2.93$

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

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

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

The "P" grade (Progress) may be awarded when a student has attended class regularly and the instructor has evidence that the student has made significant progress toward meeting course objectives, but the student has not met those objectives at a level appropriate for a performance grade (A-F). "P" grade may be computed as an "F" grade at some receiving colleges and universities. To earn credit for a course in which the student has a "P" grade, the student must re-enroll in that course.

ACCEPTABLE SCHOLASTIC PERFORMANCE

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

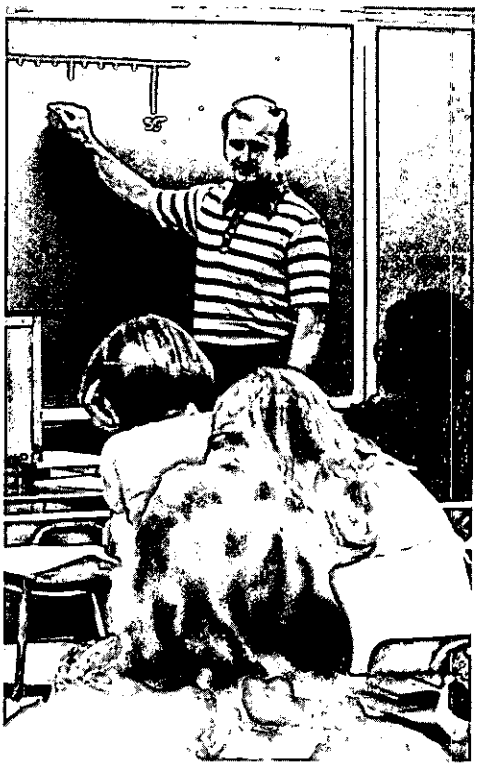
in computing a student's scholastic standing, but they cannot be used to meet graduation requirements.

HONORS

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

SCHOLASTIC PROBATION AND SCHOLASTIC SUSPENSION

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



GRADE REPORTS

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

WAIVING OF SCHOLASTIC DEFICIENCY

Any student in an academic transfer program may transfer to a career program. In such a case, the student may choose to have any grades below "C" disregarded. However, the procedure for disregarding low grades may only be exercised while the student is in a career program. If the student changes to an academic transfer program, the original

conditions of the academic transfer program must be followed, including the calculation of a cumulative grade point average of all college credits earned. The procedure for waiving scholastic deficiency applies both to students of this college and to students transferring from other institutions. The student who wishes to use the procedure for waiving scholastic deficiency 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.

TRANSCRIPTS OF CREDIT

Upon the written request of a student, the Registrar's Office will send an official transcript to the individual student or to any college or agency named. The transcript may be withheld, however, until the student has settled all obligations with the College. The first two requests for a transcript are filled without charge. Later requests are filled for a $1 charge.

CLASSIFICATION OF STUDENTS

Freshman:
A student who has completed fewer than 30 credit hours.
Sophomore:
A student who has completed 30 or more credit hours.
Part-time:
A student carrying fewer than 12 credit hours in a given semester.
Full-time:
A student carrying 12 or more credit hours in a given semester.

INSTRUCTORS

The faculty is comprised of outstanding professional educators who were chosen as a result of their recognized accomplishments as educators, business leaders, government leaders, and community leaders. All share with students the knowledge and practical insight gained from years of experience in successful careers and avocations.



LEARNING RESOURCES CENTER AND LIBRARY OBLIGATIONS

The Learning Resources Center (LRC) supports classroom instruction. It is a place where students can find books and non-print materials to supplement classroom learning or where—if they choose—they can actually take a course. The LRC helps students to learn in their own ways and at their own speeds. It provides books, slides, tapes, and films. The College has a growing collection of books on a wide variety of general information areas to support Academic Transfer Programs and Technical/Occupational Programs. In addition, there are special collections of career materials and pamphlets. The library also subscribes to current popular and technical periodicals as well as to area and national newspapers.
Classroom Resource Services is a part of the LRC and supports the instructional program. It is responsible for all campus audio-visual equipment and non-print materials used in the classroom or by individual students and for the production of instructional materials.
Willful damage to library materials (or property) or actions disturbing users of the library may lead to the loss of library privileges. Damage cases are referred to the appropriate authorities for further action. All books and other library materials must be returned before the end of each semester. No transcript is issued until the student's library record is cleared.

IV. EDUCATIONAL AND SPECIAL OPPORTUNITIES

ACADEMIC TRANSFER STUDIES

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

TECHNICAL/OCCUPATIONAL PROGRAMS

Students who desire to enter a chosen field as a skilled employee after one or two years of college work may enroll in one of the many Technical/Occupational Programs offered by the College. Technical/occupational courses carry college credit leading to a Certificate of Completion or an Associate in Applied Arts and Sciences Degree. These programs are established only after studies verify that employment opportunities will exist at the time the student completes training. 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. They 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 training needs.

CREDIT BY EXAMINATION

Students who believe they already meet the requirements of a course by experience or previous training may request credit by examination. The Counseling Center has a list of courses available through this method.

The examination may be a section of the College Level Examination Program (CLEP), Advanced Placement Exams (CEEB), or a teacher-made test, depending on the course. The student pays an examination fee of $22.00 per course examination. This fee must be paid prior to taking the examination and is not refundable.

The colleges credit by examination program is coordinated with similar programs of four-year institutions. Final acceptance of credit by examination for specific degree purposes is determined by the degree-granting institution. Students planning to use credit by examination to meet degree requirements at other institutions should check the requirements of the *receiving* institution.

Students must be currently enrolled at this college to receive credit by examination. Students may not request credit by examination in courses for which they are currently enrolled. Students may earn as many credits through examination as their ability permits and needs require, but the last 15 credit hours required for graduation in any degree or certificate program must be earned in residency. Credit by examination may be attempted only one time in any given course, and a grade of "C" or better must be earned in order for credit to be recorded. A student may use credit by examination for only three (3) credit hours to apply toward the degree requirements in history and only three (3) credit hours to apply toward the degree requirements in government.

(CLEP exam does not meet this requirement.)

NON-TRADITIONAL LEARNING

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

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

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

FLEXIBLE ENTRY COURSES

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

TELECOURSES

Students may take a variety of college credit courses via television. The schedule of telecourses varies each semester and may include courses in anthropology, astronomy, business, earth science, ecology, biology, English, economics, government, history, humanities, psychology, religion, and sociology. Content and credit for these courses are the same as for similar courses taken on campus. Telecourses include the viewing of television programs on KERA/Channel 13 and on cable, plus reading, study guide and writing assignments. Students come to the campus for an orientation session at the beginning of the semester, for one to four discussion meetings, for three or four tests, and for laboratory sessions in science courses having laboratories. These campus visits are normally scheduled for a time convenient to the students. Field trips are required in some courses. Telecourses may be taken in conjunction with on-campus courses or by persons who are not enrolled in any on-campus courses. Students may register for telecourses by mail or through the regular on-campus registration process.

COOPERATIVE WORK EXPERIENCE EDUCATION

Students may enrich their education in certain career programs by enrolling in Cooperative Work Experience Courses. These courses allow students to combine classroom study with on-the-job experience at training stations approved by the College.
Students must have completed at least two courses in their occupational major to be eligible for Cooperative Work Experience.
A full-time student (carrying 12 credit hours or more) must take two courses which relate to the student's work experience, and a maximum of 4 credit hours may be in Cooperative Work Experience. Part-time students (carrying under 12 credit hours) may take a maximum of 4 credit hours of work experience. They must be concurrently enrolled in a course related to their work experience (or a support course to be applied toward their occupational degree or certificate).
To enroll in a Cooperative Work Experience Course, students must have the approval of their instructor/-coordinator. Course credit is awarded at the rate of 1 credit hour for each 80 hours of approved work experience during the semester. The 80 hours is approximately 5 hours per week during a fall or spring semester.
Additional information regarding Cooperative Work Experience may be secured from the Cooperative Education Office. The Technical/Occupational Programs having work experiences are indicated in the Course Descriptions Section of this catalog.

INTERNATIONAL STUDIES

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

HUMAN DEVELOPMENT

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

EVENING AND WEEKEND COLLEGE

In dynamic, growing communities such as those encompassing this college, people have continuing educational needs, yet many of them have work schedules and personal involvements which make it impossible for them to attend college during normal daytime hours. For this reason, evening and weekend college courses offer the same broad spectrum of programs available for full-time day students. Courses are offered both on campus and at selected community locations. Evening and weekend courses offer high quality instruction, excellent facilities, and a variety of student services, including counseling, health, library, bookstore, food services, financial aid, and recreation. Instructors are selected from the College's own full-time staff, from outstanding Dallas area educators, and from other professional specialists interested in teaching. To enroll in the evening and weekend courses, contact the Director of Admissions. Information may also be obtained by contacting the Extended Day Administration Office.

SERVICEMEN'S OPPORTUNITY COLLEGE

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

COMMUNITY SERVICE PROGRAMS

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

- Continuing education opportunities for individuals who want to broaden their knowledge or learn new skills for different occupational fields.
- Cultural and community enrichment studies for groups and individuals seeking to enhance their quality of life.
- Personal entertainment and recreation for individuals wishing to explore new activities for personal growth and enjoyment.
- Resources for industry, government and professional groups needing to supplement their own training and development programs.

Community Service Programs offer short courses, seminars, workshops, and institutes. The type of course offering is determined by the nature of the material, instructional approach, and needs of the requesting individuals or organizations.
Generally there are no entrance requirements or examinations. Some courses may have age restrictions or may require a certain amount of experience for enrollment. Admission is on a first-come, first-served basis. All one need do to register is fill out the form and pay the fee. Classes and activities are held on campus and in a variety of locations throughout the community. Most classes and activities are conducted on weekday evenings, but many are also held on weekdays and weekends.
Community Service Program instructors are professional men and women from the community who have proven experience in their fields. Their objective is to share their knowledge, insight, and experience, and to insure that students acquire a greater perspective of the subject and have a meaningful experience.
Although most Community Service Courses do not require textbooks, the nature of some special offerings do require the purchase of books or supplies. Students are notified of the need for texts and other materials at the first meeting.
Library privileges are available for Community Service students during the term they are registered. Contact the Community Service Office for further information.

CONTINUING EDUCATION UNITS (CEU'S)

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

V. STUDENT SERVICES

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



STUDENT DEVELOPMENT AND ACTIVITIES

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

GUIDANCE AND COUNSELING SERVICES

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

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

TUTORING SERVICES

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

TESTING AND EVALUATION CENTER

The Testing Center administers various tests. Types of tests include:

1. Psychological tests of personality, vocational interests, and aptitudes.
2. Academic tests for college instructional programs. Many courses are individualized and self-paced, permitting students to be tested at appropriate times.
3. Assessment tests for appropriate class placement. These tests are very strongly recommended to insure student success.
4. Tests for selected national programs.

HEALTH CENTER

Health is the most fundamental human need, and a high standard of physical and mental health is a basic right of every human being. The Health Center helps maintain and promote the health of students, faculty, and staff. Services provided by the Health Center include education and counseling about physical and emotional health, emergency first aid treatment, referral services to community agencies and physicians, free tuberculin skin tests and other screening programs, and programs of interest to students and faculty.

Students are encouraged to make an appointment with the nurse to discuss specific health problems. No information on a student's health is released without written permission from the student, except as required by law.

SERVICES FOR HANDICAPPED STUDENTS

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



STUDENT ORGANIZATIONS

Information about participation in any organization may be obtained through the Student Development Office. The development of student organizations is determined by student interest. Categories of organizations include:

- Co-curricular organizations pertinent to the educational goals and purposes of the College.
- Social organizations to provide an opportunity for friendships and promote a sense of community among students.
- Service organizations to promote student involvement in the community.
- Pre-professional and academic organizations to contribute to the development of students in their career fields.

INTERCOLLEGIATE ATHLETICS

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

INTRAMURAL SPORTS

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

HOUSING

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

CAMPUS SECURITY

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



VI. FINANCIAL AID

Students who need financial aid to attend college can apply for grants, scholarships, loans, or job opportunities. These aid opportunities are provided in the belief that education should not be controlled by the financial resources of students.
Students needing financial assistance are encouraged to complete an application well in advance of registration for the semester they wish to attend. Early application allows the Financial Aid Office to prepare a realistic financial aid package.
Some of the grant, scholarship, loan and job programs available to students are outlined in the following paragraphs. Contact the Financial Aid Office for detailed information about any program.

BEOG GRANT

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

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

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)

The SEOG is a Federal program to help pre-baccalaureate students with eligibility based solely on need. The amount of a SEOG award depends on the individual student's needs, the total number of applicants, and funds available. The SEOG must be matched by other sources of aid, such as BEOG, College Work/Study Program, private scholarships, etc. To be eligible, students must enroll for a least 6 credit hours, make satisfactory progress toward their educational goal and have financial need. Students must apply each year for the SEOG.

TEXAS PUBLIC EDUCATIONAL GRANT (TPEG)

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

TEXAS PUBLIC EDUCATIONAL GRANT STATE STUDENT INCENTIVE GRANT (TPEG-SSIG)

The TPEG-SSIG is a State program. To qualify, students must enroll and remain in 12 credit hours per semester, make satisfactory progress toward their educational goal, be enrolled in an undergraduate course of study (not possess a bachelor's or graduate degree), be a Texas resident, and have financial need. Grants are awarded by eligibility on a first-come, first-served basis. Students must apply each year for the TPEG-SSIG.

HINSON-HAZLEWOOD COLLEGE STUDENT LOAN PROGRAM

The Hinson-Hazlewood College Student Loan Program is a state operated, federally insured student loan program. To qualify, students must enroll on at least a half-time basis (6 credit hours in the fall or spring semester), be a Texas resident, and demonstrate financial need. Students must apply for all other types of aid before applying for this loan, and they must apply each year to renew the loan.

Repayment begins nine to twelve months after the student ceases to be enrolled for at least one-half the normal course load. Repayment may extend up to 10 years, but a minimum payment of $30 a month is required. The interest rate is 7% a year (adjusted).

STUDENT EMPLOYMENT

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

SOCIAL SECURITY ADMINISTRATION

The Social Security Administration offers benefits to students who meet its criteria. The Admissions Office acts as liaison between students and the Social Security Administration. Students need to contact the regional Social Security Administration Office regarding eligibility.



BUREAU OF INDIAN AFFAIRS

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

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

VOCATIONAL REHABILITATION

The Texas Rehabilitation Commission offers assistance for tuition and fees to students who are vocationally handicapped as a result of a physically or mentally disabling condition. For further information, contact Texas Rehabilitation Commission, 13612 Midway, Suite 530, Dallas, Texas 75234.

VETERANS' BENEFITS PROGRAM

The Veterans' Benefits Program is coordinated by the Veterans' Affairs Office of the College. Services of this office include counseling the veteran concerning benefits, Veterans Administration loans, Veterans Administration work study programs, financial problems, career counseling, and other areas related to the veteran's general welfare.

When testing indicates that a veteran should enroll in developmental courses

such as reading, writing, or math, the student may pursue these courses with no charge to his or her benefits. Tutoring services are also available to the veteran who is having learning difficulties in one or more subjects. The veteran student should be aware of some of the Veterans Administration guidelines. Violation of these guidelines causes complications in receiving monthly benefits or loss of those benefits.

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

The above V.A. regulations are subject to change without notice. Students should contact the Veterans' Affairs Office in order to be aware of current regulations and procedures.



HAZLEWOOD ACT

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

ACADEMIC PROGRESS REQUIREMENT

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

The 2.0 Grade Point Average (GPA) Requirement

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

Academic Compliance

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

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

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

SHORT-TERM LOANS

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

JOB PLACEMENT SERVICES

The Placement Office is available to assist any student in job placement, either on or off-campus. Job openings are listed in the Placement Office. The Placement Office also works directly with students and community employers to locate jobs and students qualified to fill them. Career placement assistance is available for students nearing the end of their course of study. In addition to listing full-time career opportunities, the Placement Office also assists students in developing resumes, preparing for interviews, and developing successful job search strategies.

VII. STUDENT CODES AND EXPECTATIONS

1. General Provisions

a. Purpose

(1)A student at a college of the Dallas County Community College District neither loses the rights nor escapes the responsibilities of citizenship. He is expected to obey both the penal and civil statutes of the State of Texas and the Federal Government and the Board of Trustees rules, college regulations and administrative rules. He may be penalized by the college for violating its standards of conduct even though he is also punished by State or Federal authorities for the same act.

(2) This code contains regulations for dealing with alleged student violations of college standards of conduct in a manner consistent with the requirements of procedural due process. It also contains descriptions of the standards of conduct to which students must adhere and the penalties which may be imposed for the violation of those standards.

b. Scope

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

(2) The College has jurisdiction for disciplinary purposes over a person who was a student at the time he allegedly violated a Board policy, college regulation, or administrative rule.

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

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

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

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

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

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

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

(7) All vice presidents, deans, associate deans, assistant deans, directors, and division chairmen of the College for the purposes of this code shall be called "administrators";

(8) "Complaint" is a written summary of the essential facts constituting a violation of a Board policy, College regulation or administrative rule;

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

(10) "Chancellor" means the Chancellor of the Dallas County Community College District;

(11) "Major violation" means one which can result in suspension or expulsion from the College or denial of degree;

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

2. Standards of Conduct

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

(1) Not to violate any municipal, State, or Federal laws, and

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

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

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

(1) Student Identification:

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

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

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

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

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

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

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

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

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

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

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

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

purpose of inciting and influencing others.

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

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

Furthermore, the Vice President of Student Services shall enforce the provisions of the Texas Education Code, Section 4.30.

Education Code Section 4.30 provides:

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

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

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

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

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

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

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

(c) For the purpose of this section, a lawful assembly is disrupted when any person in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to a reasonable fear that force or violence is likely to occur.

(d) A person who violates any provisions of this section is guilty of a misdemeanor and upon conviction is punishable by a fine not to exceed $200 or by confinement in jail for not less than 10 days nor more than 6 months, or both.

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

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

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

(6) Gambling: State law expressly forbids gambling of any kind on State property.

(7) Hazing: Each college of the Dallas County Community College District, as a matter of principle and because it is a violation of State law, is opposed to and will endeavor to prevent hazing activities which involve any of the following factors singly or in conjunction:

(a) Any actions which seriously imperil the physical well-being of any student (all walks and all calisthenics are held to be actions which seriously imperil the physical well-being of students and are, therefore, accordingly specifically prohibited).

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

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

The institutional policy is one discouraging all activities incompatible with the dignity of the college student and exercising disciplinary correction over such of these activities as escape from reasonable control, regulation, and decency. From the institutions's point of view, the responsibility for the control of hazing activities, if engaged in by an organization, rests in the elected and responsible officials of the group, as individuals, and in the group as a whole, since it sets and approves the policy to be followed in these matters. It is accordingly recommended that all groups be informed that both their officers and the group itself will be held singularly and collectively responsible for any actions considered to be unreasonable, immoral, and irresponsible with the policy limits detailed above. Individual activity falling in this category shall be handled on an individual basis and will result in disciplinary action.

(8)Scholastic Dishonesty:

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

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

(c) "Cheating on a test" includes:

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

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

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

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

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

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

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

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

(9) Financial Transactions with the College:

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

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

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

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

(10) Other Offenses:

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

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

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

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

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

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

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

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

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

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

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

3. Disciplinary Proceedings

a. Administrative Disposition

(1) Investigation, Conference and Complaint:

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

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

(ii) Proceed administratively under 3(a) 3(d); or

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

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

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

(2) Summons:

(a) A student may be summoned to appear in connection with an alleged violation by sending him a letter by certified mail, return receipt requested, addressed to the student at his address appearing in the Registrar's Office records. It is the student's responsibility to immediately notify the Registrar's Office of any change of address.

(b) The letter shall direct the student to appear at a specified time and place not less than three class days after the date of the letter. The letter shall also describe briefly the alleged violation and shall state the Vice President of Student Services' intention to handle the allegation as a minor or major violation.

(c) The Vice President of Student Services may place on disciplinary probation a student who fails without good cause to comply with a letter of summons, or the Vice President may proceed against the student under 3(a)(3).

(3) Disposition:

(a) At a conference with a student in connection with an alleged minor or major violation, the Vice President shall advise the student of his rights.

(b) A student may refuse administrative disposition of the alleged violation and, on refusal, is entitled to a hearing under 3(b) of this code. If a student accepts administrative disposition, he shall sign a statement that he understands the nature of the charges, his right to a hearing or to waive the same, the penalty imposed, and his waiver of the right to appeal.

(c) The Vice President of Student Services shall prepare an accurate, written summary of each administrative disposition and forward a copy to the student (and, if the student is a minor, to the parent or guardian of the student), to the Director of Student Development and to the Director of Campus Security.

(d) The Vice President of Student Services may impose disciplinary action as follows:

(i) For minor violations, any action authorized by 4a(1) through (8) of this code.

(ii) For major violations, any action authorized by 4a of this code.

B. Student Discipline Committee

(1) Composition; Organization:

(a) When a student refuses administrative disposition of either a major or a minor violation, he is entitled to a hearing before the Student Discipline Committee. This request must be made in writing on or before the third day following administrative disposition. The Committee shall be composed of any three administrative officers of the College. The Committe shall be appointed by the President for each hearing on a rotating basis or on a basis of availability.

(b) The Student Discipline Committee shall elect a Chairman from the three appointed members. The Chairman of the Committee shall rule on the admissibility of evidence, motions, and objections to procedure, but a majority of the committee members may override the Chairman's ruling. All members of the Committee are eligible to vote in the hearing.

(c) Chairman: The Chairman shall set the date, time, and place for the hearing and may summon witnesses, and require the production of documentary and other evidence.

(d) The Vice President of Student Services shall represent the College before the Student Discipline Committee and present evidence to support any allegations of violations of Board policy, college regulation, or administrative rules. The Vice President of Student Services may be assisted by legal counsel when in the opinion of the Vice President of Student Services the best interests of the student or the College would be served by such assistance.

(2) Notice:

(a) The Committee Chariman shall by letter notify the student concerned of the date, time and place for the hearing. The letter shall specify a hearing date not less than three (3) nor more than ten (10) class days after the date of the letter. If the student is under 18 years of age, a copy of the letter shall be sent to the parents or guardian.

(b) The Chairman may for good cause postpone the hearing so long as all interested parties are notified of the new hearing date, time and place.

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

(d) The notice shall specify whether the charge or charges are considered minor violations or major violations; shall direct the student to appear before the Committee on the date and at the time and place specified, and shall advise the student of the following rights:

(i) To a private hearing;

(ii) To appear alone or with legal counsel (if charges have been evaluated as a major violation or if the College is represented by legal counsel);

(iii) To have his parents or legal guardian present at the hearing;

(iv) To know the identity of each witness who will testify against him;

(v) To cause the Committee to summon witnesses, require the production of documentary and other evidence possessed by the College, and to offer evidence and argue in his own behalf;

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

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

(viii) To appeal to the Faculty-Student Board of Review, subject to the limitations established by 3c(1)(a) of this code.

(e) The Vice President of Student Services may suspend a student who fails without good cause to comply with a letter sent under this section, or, at his discretion, the Vice President of Student Services may proceed with the hearing in the student's absence.

(3) Preliminary Matters:

(a) Charges arising out of a single transaction or occurence, against one or more students, may be heard together or, either at the option of the Committee or the

request by one of the students-in-interest, separate hearings may be held.

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

(i) The name of each witness he wants summoned and a description of all documentary and other evidence possessed by the College which he wants produced;

(ii) An objection that, if sustained by the Chairman of the Student Discipline Committee, would prevent the hearing;

(iii) The name of legal counsel, if any, who appear with him;

(iv) A request for a separate hearing, if any, and the grounds for such a request.

(c) When the hearing is set under waiver of notice or for other good cause determined by the Committee Chairman, the student concerned is entitled to furnish the information described in paragraph (b) hereof at any time before the hearing begins.

(4) Procedure:

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

(i) Representatives of the College Council;

(ii) A staff member of the College newspaper;

(iii) Representatives of the Faculty Association;

(iv) Student's legal counsel; and

(v) Members of the student's immediate family.

(b) The Committee shall proceed generally as follows during the hearing:

(i) The Vice President of Student Services shall read the complaint;

(ii) The Vice President of Student Services shall infrom the student of his rights, as stated in the notice of hearing;

(iii) The Vice President of Student Services shall present the College's case;

(iv) The student may present his defense;

(v) The Vice President of Student Services and the student may present rebuttal evidence and argument;

(vi) The Committee will vote the issue of whether or not there has been a violation of Board policy, college regulation or administrative rule; if the Committee finds the student has violated a Board policy, college regulation or administrative rule, the Committee will determine an appropriate penalty.

(vii) The Committee shall inform the student of the decision and penalty, if any;

(viii) The Committee shall state in writing each finding of a violation of Board policy, college regulation or administrative rule, and the penalty determined. Each committee member concurring in the finding and penalty shall sign the statement. The Committee may include in the statement its reasons for the finding and penalty.

(5) Evidence:

(a) Legal rules of evidence shall not apply to hearings before the Student Discipline Committee, and the Committee may admit and give probative effect to evidence that possesses probative value and is commonly accepted by reasonable men in the conduct of their affairs. The Committee shall exclude irrelevant, immaterial and unduly repetitious evidence. The Committee shall recognize as privileged communications between a student and a member of the professional staff of the Health Center, Counseling and Guidance Center, or the Office of the Vice President of Student Services where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff members and the student to be confidential. Committee members may freely question witnesses.

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

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

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

(6) Record:

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

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

c. Faculty-Student Board of Review

(1) Right to Appeal:

(a) In those cases in which the disciplinary penalty imposed was as prescribed in 4a(6) through (11), the student may appeal the decision of the Student Discipline Committee, or the decision of the President in an interim action under 3a(1)(b) to the Faculty-Student Board of Review. Disciplinary actions taken under 4a(1) through (5) cannot be appealed beyond the Student Discipline Committee. A student appeals by giving written notice to the Vice President of Student Services on or before the third class day after the day the decision or action is announced. This notice may be informal, but shall contain the student's name, the date of the decision or action, the name of his legal counsel, if any, and a simple request for appeal.

(b) Notice of appeal timely given suspends the imposition of penalty until the appeal is finally decided, but interium action may be taken as authorized under 3a(1)(b).

(2) Board Composition:

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

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

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

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

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

(3) Consideration of Appeal:

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

(b) Upon timely appeal, the President shall select a Board of Review as aforesaid and shall notify the student

appellant and the Vice President of Student Services in writing of the time, date, and place of the hearing as determined by the President.

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

(d) Appellate hearings will follow the procedure prescribed in 3b of this code.

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

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

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

(i) In violation of a Federal or State law, Board policy, college regulation, administrative rule, or authorized procedure;

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

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

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

(4) Petition for Administrative Review

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

(b) A petition for review is informal but shall contain, in addition to the information required by 3c(1)(a), notice of appeal, the date of the Board of Review's action on the student's appeal and his reasons for disagreeing with the Board's action. A student shall file his petition with the President on or before the third class day after the day the Board of Review announces its action on the appeal. If the President rejects the petition, and the student appellant wishes to petition the Chancellor, he shall file the petition with the Chancellor on or before the third class day after the President rejects the petition in writing. If the Chancellor rejects the petition, and the student appellant wishes to petition the Board of Trustees, he shall file the petition with the Chairman of said Board on or before the third class day after the day the Chancellor rejects the petition in writing.

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

4. Penalties

a. Authorized Disciplinary Penalties: The Vice President of Student Services, under 3a, or the Student Discipline Committee, under 3b, or the Faculty-Student Board of Review, under 3c, may impose one or more of the following penalties for violation of a Board policy, college regulation, or administrative rule:

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

b. Definitions: The following definitions apply to the penalities provided in 4a:

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

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

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

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

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

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

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

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

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

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

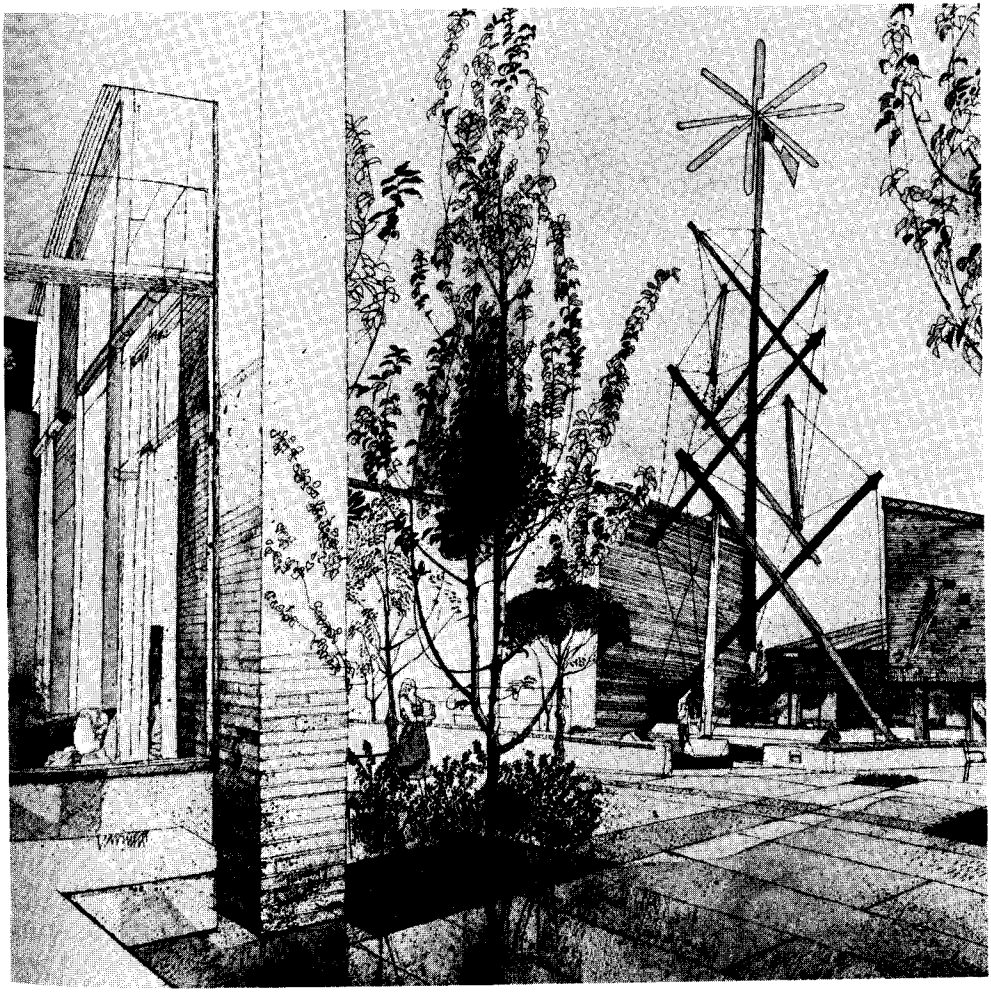
(9) "Suspension from the College" prohibits, during the period of suspension, the student on whom it is imposed from being initiated into an honorary or service organization; from entering the college campus except in response to an official summons; and from registering, either for credit or non-credit,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

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

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

Brookhaven College

Information, Administration, Faculty



BROOKHAVEN COLLEGE

Brookhaven College is the youngest of the seven colleges of the Dallas County Community College District. Opening in 1978, it marked the culmination of a thirteen year college development program begun in 1965.

Brookhaven is located on a 200-acre site at 3939 Valley View Lane in Farmers Branch, just off LBJ Freeway between Marsh Lane and Midway Road. This strategic location in fast-growing North Dallas has already catapulted the school into a position of prominance both as an educational institution and as an art and cultural center.

Brookhaven's "open door" policy gives the community a broad range of opportunities for lifelong learning. The College is dedicated to helping students of all ages and all backgrounds develop academic, social, cultural and work skills which will enable them to achieve their full potential and improve their quality of life. A college of alternatives and flexibility, the instructional emphasis is designed to allow individual learning rates and styles to emerge. Curriculum offerings keep the active community in mind and provide a balance between Academic Transfer Programs, Technical/Occupational Programs and Community Service Courses.

Brookhaven's outstanding faculty, excellent facilities and innovative programs combine to make an impressive educational package to serve a changing and growing community.

The Campus

The 120-foot power-generating windmill located in the center of the campus has become an easily recognizable landmark for Brookhaven. The campus design emphasizes outdoor spaces and activities, including a 1.8 mile path for hiking, biking and jogging which includes an 18-station Parcourse trail. Landscaping utilizes native Texas plants from various parts of the state and a developing arboretum/botanical resource area is planned for the future.

In addition to outstanding classroom and laboratory facilities, the campus also has an excellent 750-seat performance hall, an arena theatre and gymnasium which attract many visitors to the campus for athletic and fine arts events.

Accreditation

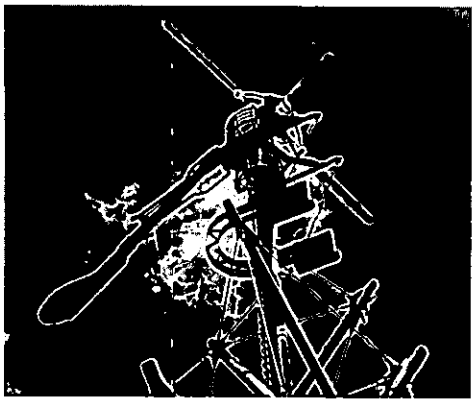
Brookhaven College is a member of

- The Southern Association of Colleges and Schools
- 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

Brookhaven 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.













BROOKHAVEN COLLEGE ADMINISTRATION

President	H. Deon Holt	746-5203
Vice President of Instruction	John E. Pickelman	746-5202
Vice President of Student Services	Joseph R. Sullivan	746-5201
Vice President of Business Services	Brenda L. Floyd	746-5201
Asso. Dean, Technical/Occupational Programs	Charles T. Spruce	746-5202
Asso. Dean, Extended Day/Community Services	Jo-Ann A. Killinger	746-5115
Asst. Dean, Instruction/Extended Day	Paul Forté	746-5202
Asso. Dean, Student Support Services	Gary L. Matney	746-5100
Asso. Dean, Learning Resource Center	Larry M. Wilson	746-5250
Director of Counseling	John D. Williams	746-5230
Director of Health Services	Naomi R. Garrett	746-5107
Director of Coop/Placement	David C. Sartain	746-5220
Director of Public Information	Ann R. Hutton	746-5200
Director of Student Development	Lou A. King	746-5166

DIVISION CHAIRPERSONS

Business and Automotive	Marilyn A. Kolesar	746-5180
Communications	Joy E. Babb	746-5170
Fine Arts and Physical Education	Charles D. McAdams	746-5130
Science and Math	Larry J. Darlage	746-5150
Social Science and Child Development	Eugene H. Gibbons	746-5140

BROOKHAVEN FACULTY AND STAFF

Attner, Raymond E., Jr. ..... Business
California State Univ. at Long Beach, B.S.; Northeast Louisiana Univ., M.B.A.

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Babb, Joy Ellen, ... Chairperson, Communications
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Southern Methodist Univ., B.A.; Univ. of Texas at Dallas, M.S.

Benner, Marcia Rae, ... Mathematics
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Brumbach, Mary A. ..... Art/Humanities
Mary Hardin-Baylor College, B.A.; North Texas State Univ., M.A., Ph.D.

Burton, Sharon LaVerne ..... Office Occupations
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Butler, Rodney H. ..... Music
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Cinclair, Carol L. ..... Reading/Learning Disabilities
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Clements, Kathleen, ... Psychology
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Forte, Paul, Jr. ..... Assistant Dean, Extended Day
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Hamm, Michael. ..... Mathematics
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Hueston, Robert Stewart ..... Physical Education
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McAdams, Charles D. ..... Chairperson, Humanities/Physical Education
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Proctor, Robert D. ..... Business/Automotive
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Quetin, Jane ..... Dance
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Rager, Brenda Marie ..... Music
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Reese, Steve ..... Automotive
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Schuster, Steve, ... Social Science
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Venza, Stephanie ..... Developmental Writing, English
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Williams, Gerald ..... Automotive
East Texas State Univ., B.S.

Williams, John D. ..... Director of Counseling
Louisiana Technical Univ., B.A., M.A.

Wilson, Larry M ..... Associate Dean, Learning Resource Center
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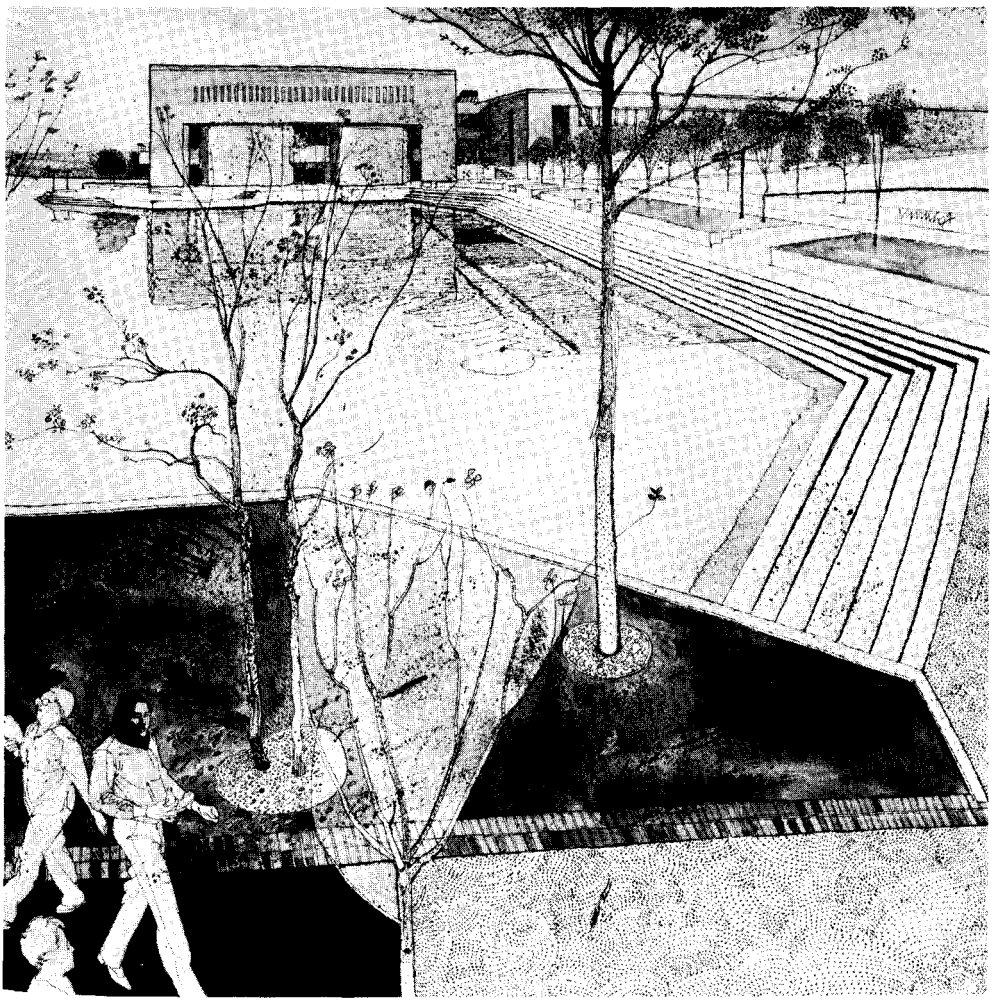
Wood, Jane Roberts ..... English
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Yocum, Barbara ..... Director, Counseling
Illinois State Univ., B.A.; Western Illinois Univ., M.S.

Zwald, Emily ..... Counselor/Instructor Human Development
De Paul Univ., B.A.; Memphis State Univ., M.Ed.

Cedar Valley College

Information, Administration, Faculty



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 south Dallas County, east of Interstate 35 and south of Interstate 20. Continuing residential and industrial expansion in this area has thrust Cedar Valley into an increasingly vital role of service to 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 to these, Cedar Valley's Technical/Occupational Programs provide many options for gaining needed training for area job markets in business, industry and the arts. Community Service courses provide people of all ages with exciting opportunities for personal growth, recreation, and to improve 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. An internal courtyard punctuated with flower beds and shade trees provides a hub of activity between the main buildings. The entire campus stretches along the shore of a twelve-acre man-made lake. Functional building design is blended well with the natural impact of sky and water to give the campus a feeling of openness and light. Students can lounge or study on lakeside terraces and the free use of glass opens classrooms, lounges and eating areas to spacious scenic vistas.

Accreditation

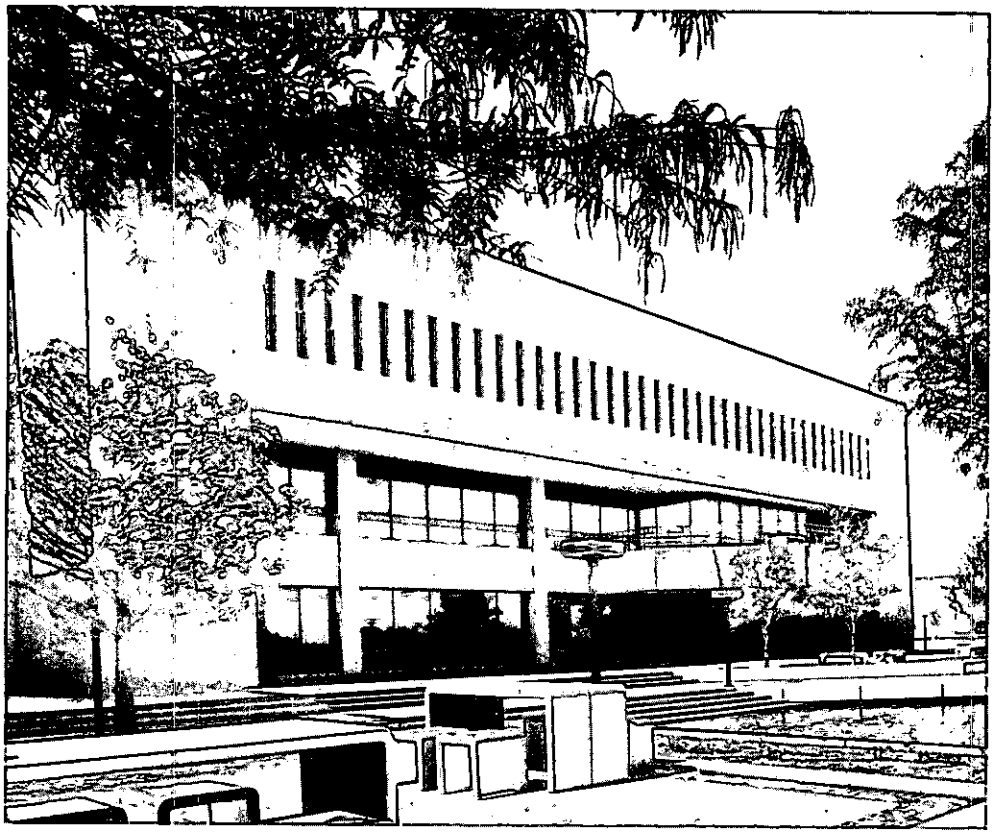
Cedar Valley College is a member of

- The Southern Association of Colleges and Schools
- The American Association of Community and Junior Colleges
- The League for 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 ADMINISTRATION

President	Floyd S. Elkins	746-4843
Vice President of Instruction	Patsy Fulton	746-4842
Vice President of Business Services	Walter N. Beene	746-4828
Associate Dean, Extended Day Programs	Kenneth W. Thomas	746-4830
Associate Dean, Learning Resources Center	Travis Y. Ueoka	746-4772
Associate Dean, Technical/Occupational Programs	Cecil H. Brewer, Jr.	746-4790
Assistant Dean, Community Service Programs		746-4800
Director of Cooperative Work Experience and Job Placement	Donna R. Mainzer-Ingram	746-4780
Director of Counseling/Student Services	Joanne Cox	746-4861
Director of Public Information	Kathleen Krebbs	746-4858
Director of Financial Aids	Frank Ellis	746-4880
Registrar and Director of Admissions	John Williamson	746-4810
DIVISION CHAIRPERSONS		
Business and Social Science	William Jones	746-4710
Communication and Humanities	Mary Davidson	746-4720
Math, Science, Physical Education and Animal Medical Technology	Mike R. Huddleston	746-4760

CEDAR VALLEY FACULTY AND STAFF

Adkins, James A. . . . . Physics & Astronomy
Univ. of Texas at Arlington, B.S., M.A.

Alexander, Luther . . . . . Motorcycle, Outboard Marine Engine, Small Engine Mechanics
North Texas State Univ., B.S.

Almquist, Don . . . . . Director of Student Development
East Texas State Univ., B.S.

Beecham, Ron . . . . . Biology
East Texas State Univ., B.S., M.S.

Beene, Walter N. . . . . Vice President — Business Services
Univ. of Houston, B.S.

Benzamin, Russell E. . . . . Music
Southwest Missouri State Univ., B.S.; North Colorado State Univ., M.A.

Bilbrey, Keith . . . . . Air Conditioning/Refrigeration/Major Appliance Repair
Tarrant County Junior College, A.A.S.

Boardman, Don R. . . . . Automotive Technology

Boswell, Carolyn D. . . . . Associate Registrar/IS User Coordinator
El Centro College, A.A.A.S.

Brewer, Cecil H. . . . . Associate Dean of Technical/Occupational Programs
Univ. of Texas at Arlington, B.A.
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Brown, Jean Billingslea . . . . . English
Rutgers Univ., A.B.; Atlanta Univ., M.A.

Busby, Nora . . . . . Instructional Development Consultant
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Chester, Florence L. . . . . Library Services
North Texas State Univ., B.S.

Christman, Calvin L. . . . . History
Dartmouth College, A.B.; Vanderbilt Univ., M.A., M.A.T.; Ohio State Univ., Ph.D.

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Certified Technician, N.I.A.S.E.

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Hampton, LeRoyal . . . . . Automotive Technology
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Bel-Rea, A.A.S., Animal Technician Registered

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

Sorrells, Gladys ..... Secretarial Skills
El Centro College, A.A.S.

Stewart, M. Kirby, Jr. ..... Music
Texas Christian Univ., B.F.A.

Sullivan, Tim ..... Anthropology/Sociology/Religion
Univ. of Southern California, B.A.; Southern Methodist Univ., M.A.

Thomas, Kenneth W. ..... Associated Dean — Extended Day Programs
Baylor Univ., B.A.; Univ. of Texas at Arlington, M.A.

Thompson, Dixie L. ..... Biology
Eastfield College, A.A.S.; Texas A&M Univ., B.S.; East Texas State Univ., M.S.

Thompson, John Paul ..... Director of Media Services
Southern Methodist Univ., B.F.A., M.Th.

Watkins, Ruth J. ..... Associate Dean — Learning Resources
California State Univ.- Los Angeles, B.A., M.A.

Wheeler, Jo ..... Director of College Store

Wigley, Manual L. ..... Director of Physical Plant

Williamson, John W. ..... Director of Admissions & Registrar
Kilgore Junior College, A.A.; East Texas State Univ., B.S., M.S.

Wilkie, Dave ..... Athletic Director/Physical Education
Ball State Univ., B.S., M.A.

Wright, David L. ..... Animal Medical Technology
Texas A&M Univ., B.S., D.V.M.

Yoder, Debby ..... Physical Education
North Texas State Univ., B.S.; East Texas State Univ., M.S.

Young, Rebecca ..... Fashion Merchandising
Iowa State Univ., B.S.; Texas Woman's Univ., M.S., Ph.D.

Youngblood, Mary Ann ..... English
Univ. of Texas at Arlington, B.A.; North Texas State Univ., M.A.

Eastfield College

Information, Administration, Faculty



EASTFIELD COLLEGE

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

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

The Campus

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

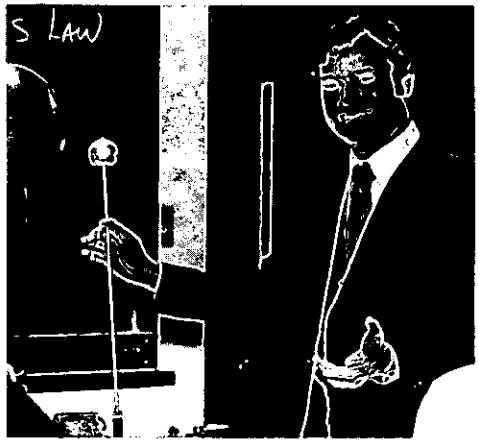
Functional building clusters give students easy access to classrooms and labs and the overall aesthetic effect has earned Eastfield several architectural awards of excellence. The careful landscape planning includes many trees, shrubs and terraced areas as well as a beautiful outdoor swimming pool. In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

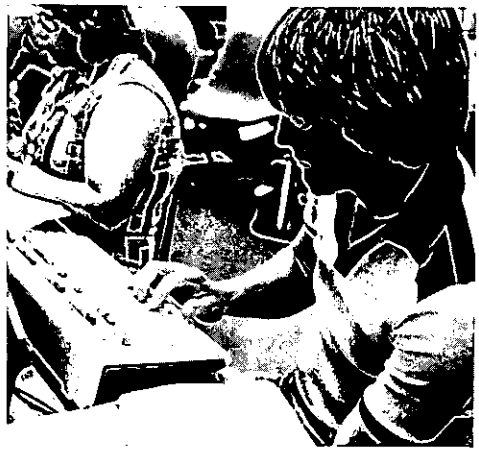
Accreditation

Eastfield College is a member of

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

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







EASTFIELD COLLEGE ADMINISTRATION

President	Eleanor Ott	746-3200
Vice President of Instruction	Jerry Henson	746-3196
Vice President of Student Services	Lee Graupman	746-3210
Vice President of Business Services	Richard A. Solo	746-3203
Asso. Dean, Continuing Education	Callie Foster Struggs	746-3110
Asso. Dean, Technical and Occupational Programs	Lu McClellen	746-3198
Asso. Dean, Instructional Development and Director of Learning Resources	Robert L. Lhota	746-3164
Assistant Dean of Community Services Programs	Carolyn Stock	746-3113
Administrative Assistant	Felix Zamora	746-3163
Director of Public Information	Raymond Campbell, III	746-3229
Director of Student Development	David Amidon	746-3172
Director of Counseling	Larry G. Carter	746-3275
Director of Admissions and Registrar	Bobbie J. Trout	746-3103
Director of Financial Aids and Placement	Furman Milton	746-3188
Director of Health Services	Marveen Kirk	746-3190

DIVISION CHAIRPERSONS

Business	Vic Rizzo	746-3116
Communications, Developmental Studies	Karin Little	746-3124
Humanities	John Stewart	746-3132
Math and Engineering	John Daigh	746-3272
Physical Education and Technology	Wilbur Dennis	746-3140
Science and Technology	Edward Ruggiero	746-3148
Social Science and Human Services	Richard Cinclair	746-3157



EASTFIELD COLLEGE FACULTY AND STAFF

Allison, Joe F. ..... Mathematics
Stephen F. Austin State College, B.S.; Texas A&M Univ., M.Ed., Ph.D.

Amidon, David C., Jr. ..... Director Of Student Development
Univ. of Houston, B.A., M.Ed.; Further study: East Texas State Univ.

Arnold, Jackie ..... Auto Body
Study: East Texas State Univ.; Paris Junior College; General Motors

Attner, Donnelle K. ..... Mid-Management
Univ. of North Carolina at Chapel Hill, B.A.; Univ. of Oklahoma, M.Ed.

Bailey, Kenneth ..... Graphic Arts

Balvin, Kenneth ..... Physical Education
Springfield College, B.S., M.S.; Further study: Ohio State Univ., Azusa Pacific College

Baynham, James D. ..... Mid-Management
Eastfield College, A.A.S.; Abilene Christian Univ., B.B.A.

Bennett, James R. ..... Developmental Mathematics
Univ. of Texas at Austin, B.A.; Univ. of Houston, M.S.; Further study: East Texas State Univ.

Berry, Kathryn ..... Coordinator, Student Development
East Texas State Univ., B.S., M.S.; Further study: Texas Woman's Univ.

Blair, Oscar T. ..... Physical Education
North Texas State Univ., B.S., M.S.; Further study: North Texas State Univ., Texas Woman's Univ., East Texas State Univ.

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., North Texas State Univ., Univ. of Texas at Austin, Syracuse Univ., Univ. of Colorado, Univ. of Hawaii, Stanford Univ.

Bowers, James . . . . . Developmental Reading
Arizona State Univ., B.A., M.A.

Bradshaw, Patti J. . . . . Developmental Studies
North Texas State Univ., B.S., M.Ed.

Brown, Beverlye . . . . . English
Birmingham-Southern College, B.S.; Univ. of Alabama, M.A.; Further study: East Texas State Univ., North Texas State Univ.

Brown, Emmett D. . . . . Counseling
North Texas State Univ., B.A., M.Ed.; Further study: El Centro College, Prairie View A&M, Naval School of Photography

Brumbach, Virginia . . . . . English
Cumberland College, A.A.; Western Kentucky State Univ., B.A.; Baylor Univ., M.A.; North Texas State Univ., Ed.D. Post-doctoral: Texas Tech Univ., North Texas State Univ., Texas Christian Univ.

Budke, Art . . . . . Counselor
Eastern Washington State College, B.A., B.A.Ed.; North Texas State Univ., M.Ed.; Further study: North Texas State Univ., Institute for Study of Man, New Mexico

Burden, Jacqueline . . . . . History
State Univ. of New York College at Buffalo, B.A.; Univ. of Michigan, M.A.; Further study: Univ. of Pittsburgh

Campbell, Ray . . . . . Director of Public Information
Dallas Baptist College, B.A.; Further study: North Texas State Univ.

Carandang, Amado I. . . . . Philosophy
King's College, B.A.; Univ. of Notre Dame, M.A., Ph.D.; Further study: California Institute of Asian Studies, San Francisco; Brock Univ., Ontario

Carpenter, Robert W. . . . . Accounting
North Texas State Univ., B.B.A., M.B.A.; C.P.A., State of Texas; Further study: North Texas State Univ., Western State College of Colorado

Carr, Laura V. . . . . Training Paraprofessionals for the Deaf Program
Illinois State Univ., B.S.; New York Univ., M.A.; Further study: East Texas State Univ.

Carter, James Damon . . . . . Automotive Technology
Southern Methodist Univ., N.I.A.S.E.; Further study: General Motors Training Center

Carter, Larry . . . . . Director of Counseling
Texas Tech Univ., B.B.A.; East Texas State Univ., M.S., Ed.D.

Cate, Franklin M. . . . . History
East Texas State Univ., B.A.; Univ. of Virginia, M.A.; Further study: Univ. of Texas, Vanderbilt Univ.

Childrey, Duffer . . . . . Coordinator, Services for Handicapped Students
Univ. of Tennessee, B.S.; Virginia Commonwealth Univ., M.S.

Choate, Charles T. . . . . Journalism
Southeastern Oklahoma State, B.A.; East Texas State Univ., M.S.; Further study: San Francisco State Univ., East Texas State Univ.

Christian, Allen L. . . . . Mathematics
Arlington State College, B.S.; East Texas State Univ., M.S.; Further study: North Texas State Univ.

Cinclair, Richard . . . . . Division Chairman, Social Science
Northern State Univ., B.S.; Univ. of Wisconsin, M.S., Ball State Univ., Ph.D.

Clarke, Curtis R. . . . . Mid-Management
Southern Methodist Univ., B.B.A., M.B.A.; Further study: Southern Methodist Univ., North Texas State Univ., Univ. of Texas at Arlington

Clayton, Glenn N., Jr. . . . . English
North Texas State Univ., B.A., M.A.; Further study: East Texas State Univ., North Texas State Univ.

Clinton, Doyle L. . . . . Spanish
Univ. of Southern Mississippi, B.A.; Univ. of Alabama, M.A.; Further study: Louisiana State Univ.

Conger, John D. . . . . Child Development
Freed-Hardeman College, A.A.; David Lipscomb College, B.A.; George Peabody College, M.A.

Daigh, John D. . . . . Division Chairman, Mathematics and Engineering
United States Military Academy, B.S.; Univ. of Illinois, M.S., Ph.D.; Professional Engineer Registration

Dale, Charles W. . . . . Electronics
Southeastern State College of Oklahoma, B.S.; Southern Illinois Univ., M.S.; East Texas State Univ., Ed.D.

Dennis, Vivian A. ..... Mathematics
East Texas State Univ., B.A., M.S., D.Ed.; Further study: North Texas State Univ.

Dennis, Wilbur L. ..... Division Chairman, Physical Education
North Texas State Univ., B.S., M.S., M.Ed.; Further study: East Texas State Univ.

DiPietro, Lawrence N. ..... Learning Resource Center
Rutgers Univ., B.A.; Drexel Univ., M.S.L.S.; Further study: North Texas State Univ.

Drake, Helan N. ..... English
Southern Methodist Univ., B.A.; North Texas State Univ., M.A.; Further study: East Texas State Univ.

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

Etheredge, John W. ..... Counseling
Baylor Univ., B.A., M.S.; Further study: Univ. of Houston, Baylor Univ., Texas A&M Univ.

Ewing, George E. ..... Drafting
North Texas State Univ., B.S., M.S.; Univ. of Arkansas, Ed.D.

Felder, Bob ..... Business
Sam Houston State Univ., B.A., M.A.

Fleming, Delryn R. ..... Developmental Writing
Southwestern Univ., B.A.; East Texas State Univ., M.A.; Further study: East Texas State Univ.

Flickner, Robert E. ..... Physical Education
Bethel College, B.S.; Kansas Univ., M.S.

Forrest, Mary L. ..... Speech
North Texas State Univ., B.A.; Southern Methodist Univ., M.F.A.; Further study: North Texas State Univ.

Fountaine, Oliver J. ..... Mathematics
Tillotson College, B.S.; Univ. of Denver, M.A.

Goldman, Allene ..... Child Development
Colorado State Univ., B.S.; Oregon State Univ., M.S.

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

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

Hall, Harvey ..... Air Conditioning and Refrigeration

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

Hegar, E. Alylene ..... Counselor; Psychology
Texas Tech Univ., B.A.; North Texas State Univ., M.Ed.; Further study: North Texas State Univ.

Henry, Robert M. ..... Physical Education
Southern Methodist Univ., B.A.; Univ. of Illinois, M.S.; Further study: Univ. of Texas, North Texas State Univ., East Texas State Univ., Texas Tech Univ., Texas A&M Univ.

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

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

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

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

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

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

Holt, Diane R. . . . . Counselor; Sociology
Univ. of Utah, B.S., M.S.; Union Graduate School, Ph.D.; Further study: Univ. of California at Los Angeles, San Diego State Univ.

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

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

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

Jessen, Joel A. . . . . Counselor; Human Development
Univ. of Iowa, B.A., M.A.

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

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

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

Kirk, Marveen M. . . . . Director of Health Services
Univ. of Texas at Austin, B.S.; Texas Woman's Univ., B.S.N.

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

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

Koeppen, Larry G. . . . . Counselor
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Lagbara, Ga. O. . . . . Speech
North Texas State Univ., B.S., M.S., Ph.D.; Further study: Harvard Univ., Univ. of Houston, Texas Southern Univ.

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

Lengyel, Peter M. . . . . Music
Glassboro State Univ., B.A.; Indiana Univ., M.M.

Lhota, Bob . . . . . LRC
St. Vincent College, B.A., M.A.; Univ. of Pittsburgh, M.L.S.

Ligon, Jim C. . . . . Human Development
Texas Christian Univ., B.A.; Southern Methodist Univ., M.A.; Further study: North Texas State Univ.

Little, Karin Lemme . . . . . Division Chairman, Developmental Studies
Northern Illinois Univ., B.S.; Illinois State Univ., M.S.

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

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

Lynch, Eileen . . . . . Government
North Texas State Univ., B.A., M.A.; Further study: Univ. of Texas at Austin, North Texas State Univ.

Lynch, Maurice . . . . . Director of Physical Plant

MacMicken, John . . . . . Director of Security

Madriguera, Enric F. . . . . Music
Royal Conservatory of Music, Madrid, Spain; Oscar Espla Conservatory of Music, Alicante, Spain; East Carolina Univ.

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

Martinez, Ivan D. . . . . Government
Florida State Univ., B.A., M.S.

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

Mathus, Don L. ..... Physical Education
South Plains College, A.A.; Texas Tech Univ., B.S., M.S.; Further study: North Texas State Univ.

Matzen, Brent E. ..... Art
Southwestern Univ., B.A.; Univ. of Dallas, M.A., M.F.A.

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

McClellen, Lu ..... Associate Dean, Technical/Occupational Education
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McCoy, David L. ..... Assistant Director of Classroom Resources
Southeastern State College of Oklahoma, B.A.; East Texas State Univ., M.S.; Further study: East Texas State Univ.

McMahon, Jerry D. ..... Chemistry
Texas Tech Univ., B.S.; Princeton Univ., M.A.

McNeill, Earldene ..... Child Development
North Texas State Univ., B.S.; Southern Methodist Univ., M.L.A.

Milton, Furman D. ..... Director of Financial Aids 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.

Mouledous, Pierrette M. ..... Piano
Performer's Certificate, Ecole Normale de Musique; Southern Methodist Univ., M.M.

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

Ott, Eleanor ..... President
Rice Univ., B.A.; Southern Methodist Univ., M.A.

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

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

Phillips, Harry ..... Music
State Univ. College at Potsdam, New York, B.S.; Univ. of Michigan, M.M.; Boston Univ., Mus.A.D.

Phillips, Jim G. ..... Counselor, Psychology, Sociology, Child Development
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Pitt, J. Michael ..... Physics
Southern Methodist Univ., B.S.E.E.; Univ. of Texas at Austin, Ph.D.

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

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

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

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

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

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

Reece, J. Rex, Jr. ..... Art
Louisiana State Univ., B.S.; George Peabody College, M.A.

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

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

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

Rizzo, Vic ..... Division Chairman, Business
Southwest Texas State Univ., B.B.A., M.B.A.; North Texas State Univ., Ph.D. Candidate

Robinson, Yvonne ..... Secretarial Science
D.C. Teachers College, B.S.; North Texas State Univ., M.B.E.

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

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

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

Schmitt, Allan B. ..... Electronics
Univ. of Texas at Austin, B.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
North Texas State Univ., B.A.; East Texas State Univ., M.S.; Purdue Univ., M.S.; Further study: East Texas State Univ.

Sharp, Robert G. ..... American History
Whitworth College, B.A.; Purdue Univ., M.A.; Further study: Univ. of Denver, Univ. of New Mexico

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

Shofner, Robert W. ..... English
East Texas State Univ., B.S., M.A.

Simpson, Deborah ..... Child Development
Stephen F. Austin, B.S.; North Texas State Univ., M.Ed.

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

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

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

Solo, Richard A. ..... Vice-President of Business Services
Villanova Univ., B.S.; Certified Public Accountant; Further studies: Univ. of Dallas

Solomon, Brad ..... Assistant Director, Learning Resources Center
Univ. of Florida, B.A., M.Ed.; Indiana Univ., Ed.S.

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

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

Stewart, Ronda A. ..... Physical Education
Texas Western College, B.A.; East Texas State Univ., M.Ed.; Further study: East Texas State Univ.

Stewart, W. Gene ..... Mid-Management
Univ. of Arkansas, B.S.E.; Southern Methodist Univ., M.Ed.; Further study: North Texas State Univ., Univ. of Texas at Dallas

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

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

Streng, 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 Mainz, Iowa State Univ., Univ. of Colorado

Struggs, Callie ..... Associate Dean, Extended Day Program; Co-op Director
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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: East Texas State Univ., Univ. of Oklahoma

Thornton, Carolyn ..... Counseling
Univ. of Cincinnatti, B.A.; East Texas State Univ., M.S.

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

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

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

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

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

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

Wilson, Mary C. ..... English
East Texas State Univ., B.A., M.A.; Further study: Texas Christian Univ., Southern Methodist Univ., East Texas State Univ.

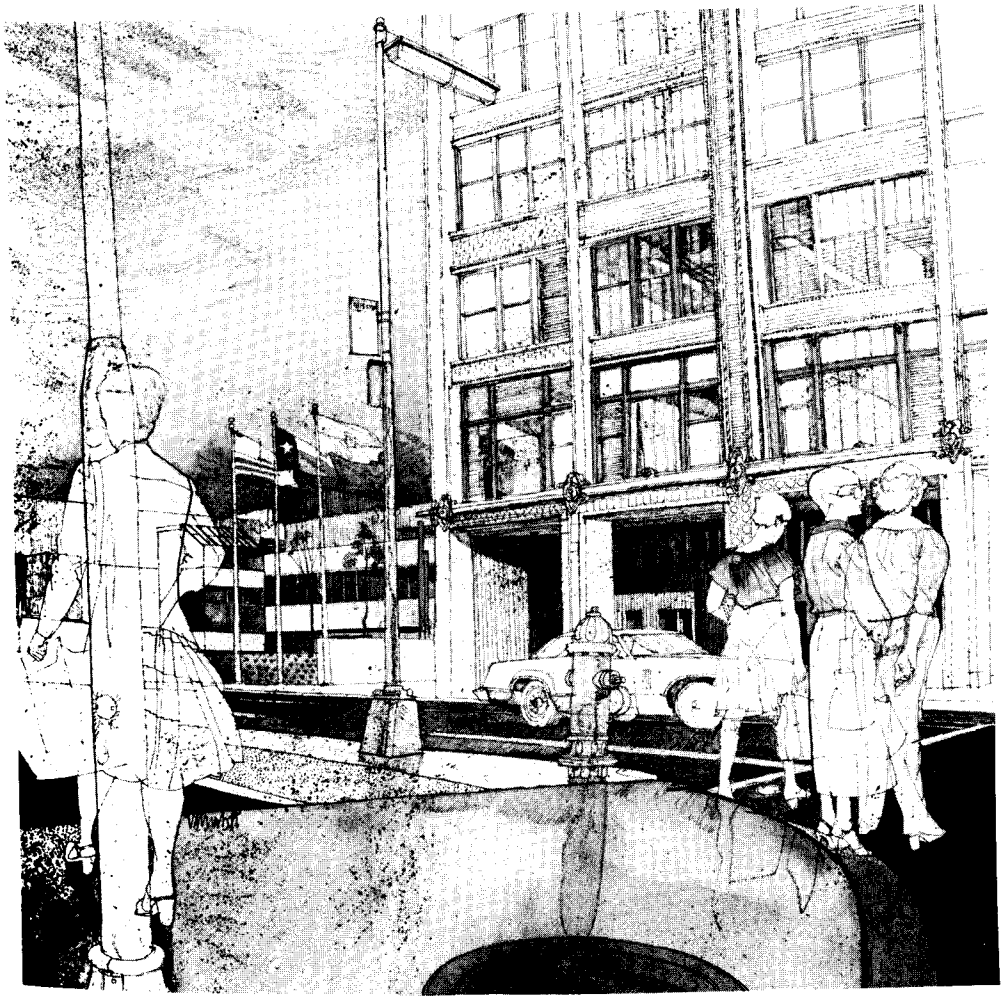
Winn, Jerry M. ..... Developmental Mathematics
Oklahoma Univ., B.S.E.E.; Southern Methodist Univ., M.S.

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

Zamora, Felix ..... Administrative Assistant to the President
School for International Training, B.S.; Southern Methodist Univ., M.P.A.

El Centro College

Information, Administration, Faculty



EL CENTRO COLLEGE

El Centro College, opened in 1966, was the first college in the Dallas County Community College District to begin operation. Located at the "hub" of the District in the heart of a revitalized downtown Dallas, El Centro plays a vital role in both the educational and cultural environment of the city.

El Centro students find downtown Dallas to be a veritable laboratory in which to test their classroom experience. In the halls of government, the corporate office suites, the retail shops, and the communications and banking centers, students can observe the working world of this growing and prosperous city. Many downtown workers take advantage of El Centro's convenient location to brush up on their job skills, work toward a career change, or enjoy one of the College's many non-credit recreational courses, like stained-glass making or conditioning exercise.

El Centro places a great deal of value on offering people opportunities to meet a wide range of goals. There is no typical El Centro student. They are of all ages and come from all walks of life. Their common goal is to use the rich educational resources of El Centro to fulfill individual needs for growth.

But beyond that, El Centro is a fun place to be — a place of music, art, theatre and dance. A place where college and community work hand in hand to make good things happen.

The Campus

El Centro College covers a two square block site in the West End Historic District of downtown Dallas. It is bounded by Main, Lamar, Elm and Market Streets. The campus combines the best of traditional and modern architecture. A turn-of-the-century building renovated to accommodate classrooms is joined to a new wing of modern facilities. Outstanding features include two modern theatres, a ballet studio, Health Occupations labs and the Food Service Program kitchens. A landscaped green space with a terraced outdoor amphitheatre completes the campus and adds beauty to the surrounding downtown environment.

Accreditation

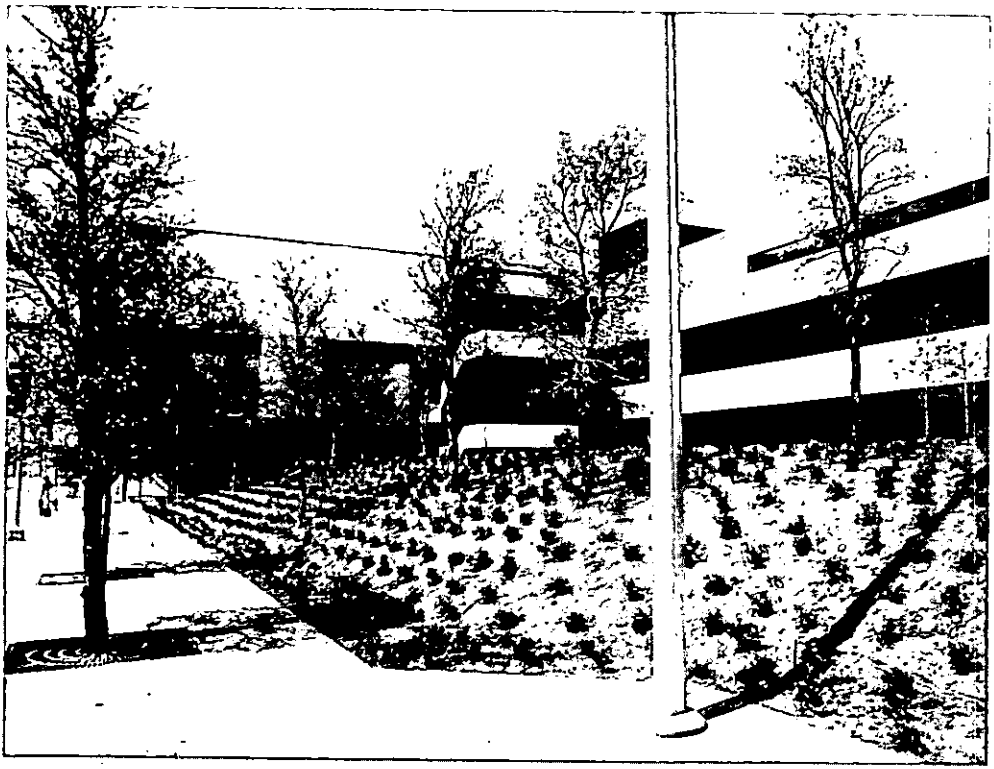
El Centro College is a member of

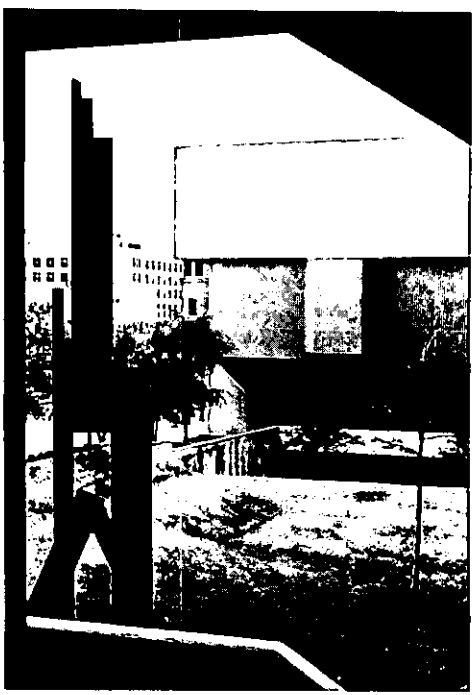
- The Southern Association of Colleges and Schools
- The American Association of Community and Junior Colleges
- The Association of Texas Colleges and Universities
- The League for Innovation in the Community College.

El Centro 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.













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Associate Dean, Technical/Occupational	Michael Ross	746-2252
Associate Dean, Health Occupations	Kay Kiefer	746-2392
Associate Dean, Extended Day Programs	Betty Wehrle	746-2184
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Director of Public Information	Peggy Davis	746-2152
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Director of Security	George Doughty	746-2233
Director of Student Development	Howard Finney	746-2230
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Young, Lee . . . . . Interior Design
Univ. of Oklahoma, B.A., M.B.A.

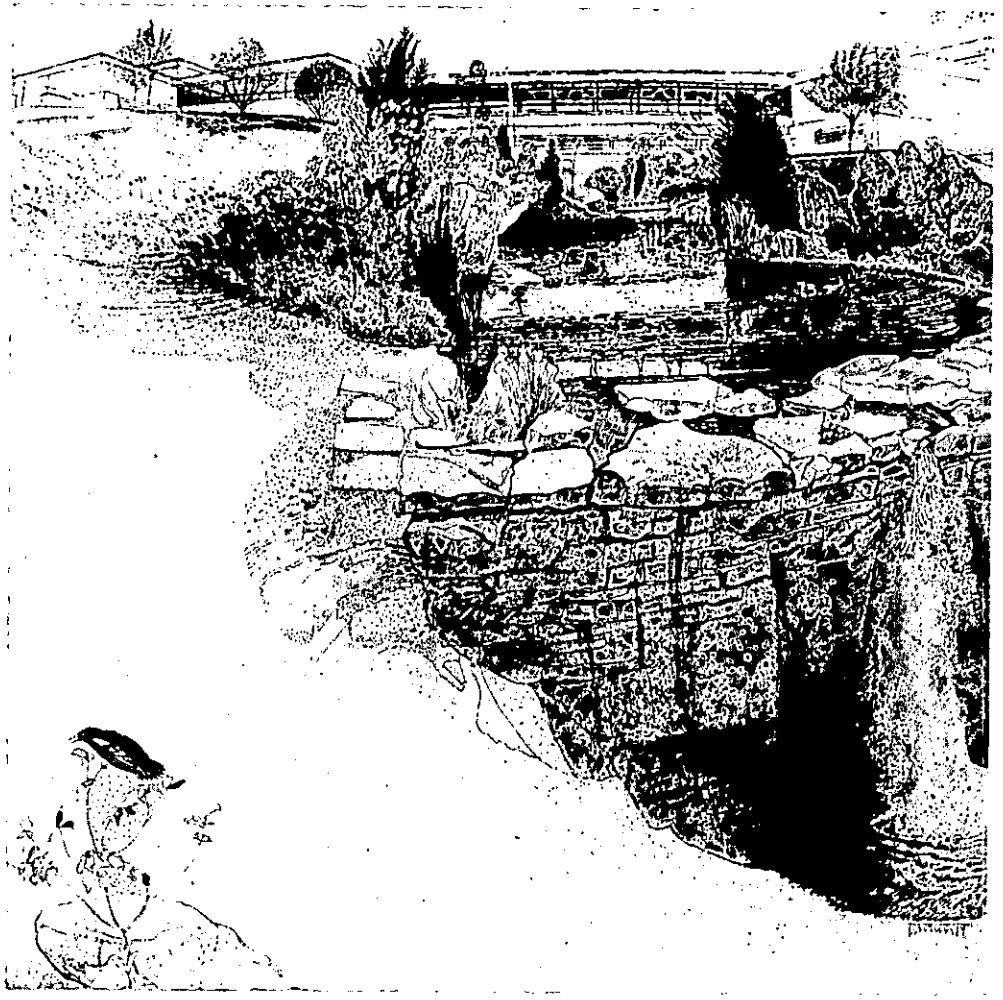
Young, Lois J. . . . . Vocational Nursing
Baptist Hospital School, R.N.

Zerwekh, JoAnn . . . . . A.D. Nursing
Univ. of Arizona, B.S.N.; Univ. of Texas at Arlington, M.S.N.

Zimmermann, George A. . . . . Data Processing
Fordham Univ., B.S.; Univ. of Texas at Dallas, M.A.S.

Mountain View College

Information, Administration, Faculty



MOUNTAIN VIEW COLLEGE

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

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

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

The Campus

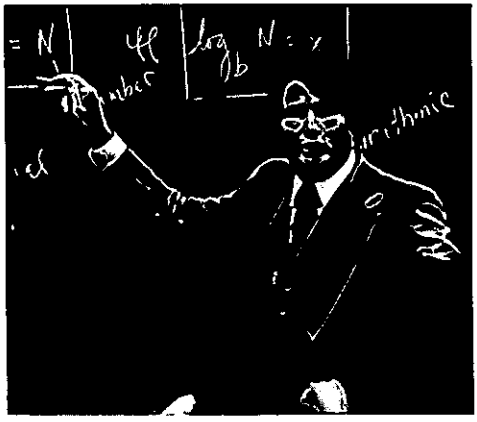
The campus sits on the crest of a ridge that gives students an outstanding view of the downtown Dallas skyline to the north. Care has been taken to preserve the natural beauty of the 200 acre site. The long, flat roofed buildings stretch out gracefully along both sides of a rocky ravine and natural creek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

Accreditation

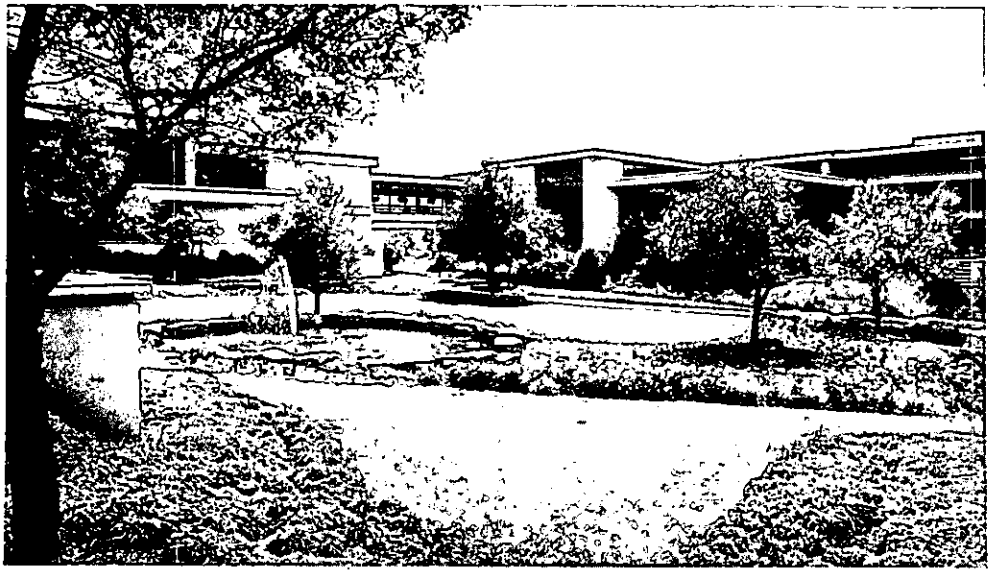
Mountain View College is a member of

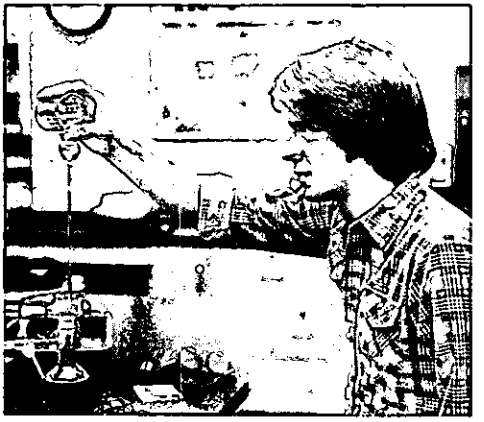
- The Southern Association of Colleges and Schools
- The American Association of Community and Junior Colleges
- The League for Innovation in the Community College.

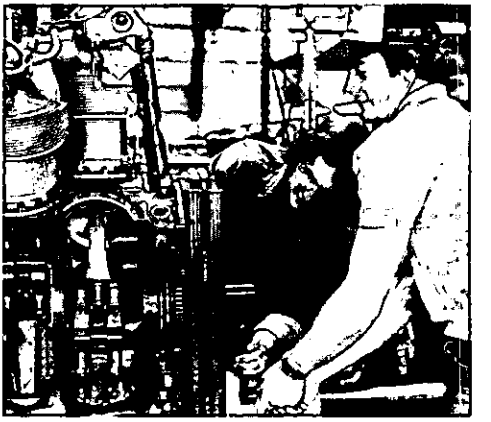
Mountain View College is recognized and sanctioned by the Coordinating Board of the Texas College and University System and the Texas Education Agency and is an Affirmative Action Equal Opportunity Institution.



















MOUNTAIN VIEW ADMINISTRATIVE STAFF

President	W. H. Jordan	746-4200
Vice President of Business Services	Ralph G. Hall	746-4205
Vice President of Instruction	Corinthian Fields	746-4210
Vice President of Student Services	Jim Horton	746-4196
Dean of Instructional Services	Richard E. Smith	746-4271
Associate Dean, Extended Day Programs	John Nelson	746-4110
Associate Dean, Learning Resources	Jim Corvey	746-4164
Associate Dean, Technical/Occupational Programs	Tom Goza	746-4255
Administrative Assistant to President	Sharron Colburn	746-4178
Director of Admissions/Registrar	Don Gentsch	746-4100
Director of Co-operative Education	William F. Fowler	746-4273
Director of Counseling Services	Bill Wilson	746-4209
Director of Financial Aid	Wilma Robinson	746-4188
Director of Health/Handicapped Services	Donna Richards	746-4199
Director of Public Information	Kathleen Cook	746-4180
Director of Veteran Affairs	Beth Merren	746-4267
Project Manager	Carol Flannery	746-4115
Assistant Director, Community Service	Maggie Whitt	746-4275
Assistant Director, Student Development and Programs	Guy Gooding	746-4185

DIVISION CHAIRPERSONS

Business	Bill R. Sorrells	746-4116
Communications and Technology	Ron Hert	746-4124
Aviation/Fine Arts/Physical Education	Ann Cuningham	746-4132
Science and Mathematics Technology	Clifford Miller	746-4149
Social Science and Technology	Bill Mugleston	746-4156

MOUNTAIN VIEW FACULTY AND STAFF

Alfers, Kenneth G. ..... History
Creighton Univ., B.A., M.A.; George Washington Univ., M.Ph., Ph.D.

Allen, Gemmy ..... Mid-Management
U.T. Arlington, B.B.A.; North Texas State Univ., M.B.A.

Armand, Pilar ..... Spanish
Univ. of Havana, Cuba, B.A.; Texas Woman's Univ., M.A.

Battles, Fred ..... Physical Education
Kilgore Jr. College, A.A.; Baylor Univ., B.S., M.S.; North Texas State Univ., Ed.D.

Bean, Al ..... Government
Baylor Univ., B.A.; Southern Methodist Univ., M.Ed.; North Texas State Univ., Ed.D.

Benson, Paul F. ..... English
Pacific Lutheran Univ., B.A.; Colorado State Univ., M.A.; North Texas State Univ., Ph.D.

Brame, Ric ..... Dance
Studies: Columbia Univ. of Fine Arts Institute; New York Fine Arts Institute

Brown, David L. ..... Drafting
East Texas State Univ., B.S., M.Ed.

Brown, Jean W. ..... Music
Texas Woman's Univ., B.S., M.A.

Callaway, Curtis ..... Pilot Technology
F.A.A. Aeronautical Training Center, Certificate; Air Traffic Control Specialist, Certificate; F.A.A. Certified Advanced Ground Instructor; F.A.A. Certified Instrument Ground Instructor; Synthetic Flight Trainer Instruction; Airplane Flight Instructor; Instrument Flight Instructor

Caldwell, Leleonia E. ..... Reading
Bishop College, B.S.; Southeastern State College, M.Ed.

Coad, Bruce ..... English
Wittenburg Univ., B.A.; Univ. of North Carolina, M.A.; Duke Univ., Ph.D.

Cook, Kathleen ..... Director, Public Information
Univ. of Texas at Austin, B.J.

Cook E. Wayne ..... English
Hardin-Simmons Univ., B.A.; Texas Tech Univ., M.A., Ph.D.

Cortez, Lionel M., Jr. ..... Counselor
Univ. of Texas at Austin, B.A.; Our Lady of the Lake College, M.Ed.; Nova Univ., Ed.D.

Corvey, Sanford James ..... Assoc. Dean, Learning Resources
Florida Atlantic Univ., B.A., M.Ed.; State Univ., of New York, Geneseo, M.L.S.

Cowan, John Arthur ..... Art
Kansas State Univ., B.S., M.A.

Criswell, Allatia ..... Speech
North Texas State Univ., B.A., M.A.

Cunningham, Ann R. ..... Chairman, Aviation/Fine Arts/Physical Education
Baylor Univ., B.S., M.S.

DeLong, J. Richard ..... Developmental Mathematics
Southern Methodist Univ., B.A.; North Texas State Univ., M.Ed.

Dexter, Rawlins P. ..... English
Colorado State Univ., B.A., M.A.

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

Duvall, Johnny W. ..... Mathematics
East Texas Univ., B.S.; Univ. of Illinois, M.A.

Edwards, Annie ..... Counselor
Prairie View A&M College, B.S., M.Ed.; Nova Univ., Ed.D.

Ehrhardt, Harryette B. ..... Resource Consultant
Southern Methodist Univ., B.S., M.A.; Univ. of Houston, D.Ed.

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

Faulkner, Ann ..... Learning Skills
Univ. of Texas, Austin, B.A., M.A.

Felty, Larry ..... Art
East Texas State Univ., B.S., M.S.

Ferguson, Susan French ..... English
Univ. of Dallas, B.S.; North Texas State Univ., M.A., Ph.D.

Fields, Corinthian ..... Vice President of Instruction
Univ. of Massachusetts, B.S., Ed.D.; Western New England College, M.B.A.

Flannery, Carol A. ..... Project Manager
Univ. of Texas, Arlington, B.S.

Fletcher, Ann ..... Educational Paraprofessional
DePauw Univ., B.A.; Univ. of Houston, M.Ed.

Forrest, Patricia ..... Art
North Texas State Univ., B.F.A., M.F.A.

Fowler, Wiliam F. ..... Director, Co-Operative Education
Baylor Univ., B.A., M.A.; East Texas State Univ., M.S.

Fulton, Stan ..... Electronics
Univ. of Arkansas, B.S.E., M.Ed.; East Texas State Univ., Ed.D.

Gentsch, Don ..... Registrar and Director of Admissions
East Texas State Univ., B.S., M.S.; Nova Univ., Ed.D.

Gooding, Guy ..... Assistant Director, Student Development and Programs
Texas Tech Univ., B.A.; North Texas State Univ., M.Ed.

Goss, Raye ..... Financial Aid Counselor
Prairie View A&M College, B.S.; East Texas State Univ., M.S.

Goza, Tom ..... Associate Dean, Technical/Occupational Programs
Austin College, A.B.; East Texas State Univ., M.S., Ph.D.

Gregory, David A. ..... Physical Education
Temple Junior College, A.A.; Southwest Texas State Univ., B.S.; North Texas State Univ., M.Ed.

Grimes, Geoffrey Allan ..... English
Austin College, B.A.; Texas Tech Univ., M.A., Ph.D.

Grissom, Anne ..... Speech
Baylor Univ., B.A., M.A.

Hall, Ralph G. ..... Vice President of Business Services
Southeastern State Univ., B.S.

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

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

Hert, Ron ..... Chairman, Communications
Univ. of Nebraska, B.A.; Illinois State Univ., M.A.

Hettle, Mark ..... Music
North Texas State Univ., B.M., M.Ed.

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

Horton, Jim ..... Vice President of Student Services
Univ. of Illinois, B.S., M.Ed.

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

Kavalier, Jim ..... Counselor
Univ. of Oregon, B.S., M.S.

Korman, Frank ..... Supervisor, Media Services
Texas Christian Univ., B.B.A.; Univ. of Texas, Austin, M.A.; Ph.D.

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

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

Lovelace, Curtis ..... Electronics
Mountain View College, Assoc. Applied Science

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

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

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

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

Merren, Beth ..... Director, Veteran Affairs
Southern Methodist Univ., B.A.

Miller, Clifford D. ..... Chairman, Science and Technology
Wayne State Univ., B.S.; Washington Univ., M.A.; Univ. of Kentucky, Ph.D.; Studies: Max Planck Institut

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

Mugleston, Bill ..... Chairman, Social Science and Technology
Johns Hopkins Univ., B.A.; Univ. of Virginia, M.A.; Univ. of Georgia, Ph.D.

Nelson, John ..... Associate Dean, Extended Day Programs
Huston-Tillotson College, B.A.; Univ. of Denver, M.A.

O'Connor, Linda ..... Biology
Univ. of Texas at Austin, B.A.; Southern Methodist Univ., M.A.

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

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

Oliver, Gwendolyn L. ..... Supervisor, Library Services
Texas Woman's Univ., B.A.; North Texas State Univ., M.L.S.

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

Payne, John ..... Aviation
Univ. of Texas, Arlington, B.B.A.; East Texas State Univ., M.B.A.; F.A.A. Airline Transport Pilot; Single and Multi-Engine, Basic, Advanced and Instrument Ground Instructor

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

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

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

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

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

Richards, Donna ..... Director, Health Center
Texas Woman's Univ., B.S., M.S.

Roberts, Mary ..... Business
Louisiana State Univ., B.S.; Southern Methodist Univ., M.B.A.

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

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

Roy, Dwayne ..... Welding
Studies: Oscar Rose Junior College; Eastfield College

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

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

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

Schimmel, David ..... Music
Oklahoma Univ., B.S.; Florida State Univ., M.S.; North Texas State Univ., M.M.

Schlehr, George ..... Horology
Oswego State Teachers College, B.S.; American Watchmakers Institute, C.M.W.

Sherman, Bill ..... Counselor
East Texas State Univ., B.S., M.Ed.

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

Sink, Donald Michael ..... English
Ball State Univ., B.S., M.A.; Auburn Univ., Ed. D.

Skinner, Ted R. ..... Librarian
East Texas State Univ., B.S., M.S. in L.S.

Smith, Richard E. ..... Dean of Instructional Services
Harding, B.A.; Univ. of Texas at Austin, M.A.

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

Sorrells, Bill R. ..... Chairman, Business Division
East Texas State Univ., B.S., M.Ed.

Strain, Jimmie F. ..... Government, History
Univ. of Texas at Austin, B.S.; East Texas State Univ., M.A.; Southern Methodist Univ., M.L.A.

Stupp, Mary ..... Philosophy
El Centro College, A.A.; North Texas State Univ., B.A.; Southern Methodist Univ., M.L.A.

Terry, Joanne ..... Coordinator, Testing Center
Texas Lutheran College, B.S.; Texas Tech Univ., M.A.

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

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

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

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

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

Whitefield, Geneva ..... Mid-Management
Univ. of Arkansas, B.S.B.A.; East Texas State Univ., M.B.A.

Whitt, Maggie ..... Asst. Director of Community Service
DePauw Univ., B.A.

Wickersham, Charles H. ..... Developmental Mathematics
North Texas State Univ., B.B.A.; East Texas State Univ., M.S.

Williams, Mollie Ann ..... Counselor
Prairie View A&M College, B.S.; East Texas State Univ., M.S.; Nova Univ., Ed.D.

Willis, John A. ..... Mid-Management
Univ. of Arkansas, B.S.; North Texas State Univ., M.B.A.

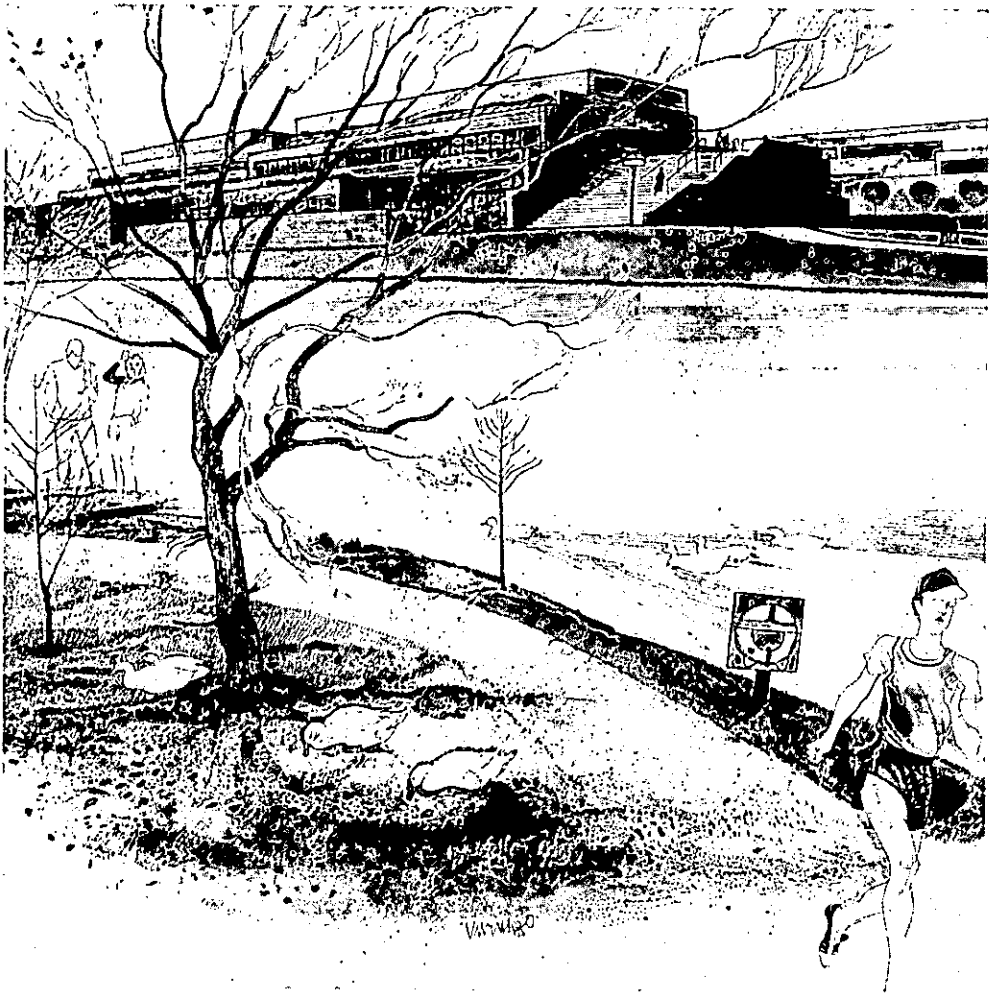
Wilson, Bill ..... Director, Counseling
The City College of the City Univ. of New York, B.A.; Teachers College, Columbia Univ., M.A., Ed.D

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

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

North Lake College

Information, Administration, Faculty



NORTH LAKE COLLEGE

North Lake College is a center for learning that makes educational and cultural opportunities accessible to all area citizens. This commitment to serve the community has resulted in a fine balance of academic transfer programs, technical/occupational programs and community service offerings. Outstanding facilities provide a stimulating and pleasant environment for students, within which faculty and staff work hard to implement the best known concepts in teaching and learning. This combination makes North Lake an exciting center for personal growth for each of its 8,500 plus students.

The college is proud of its $21 million campus, but recognizes that learning can also take place outside of the traditional classroom. For that reason, North Lake has extended many of its course offerings into businesses, community and public centers, and a variety of other places where learning is important. North Lake also provides the auxiliary benefits of a complete counseling center, job placement service, flexible entry registration, self-paced study and other services which help students learn more efficiently.

The Campus

Opened in the fall of 1977, North Lake occupies 276 wooded acres in the Las Colinas area of Irving, at 5001 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 550-seat performance hall, a 2,000 seat gymnasium and an arena theatre, complemented by exceptionally well equipped laboratories, studios and learning centers.

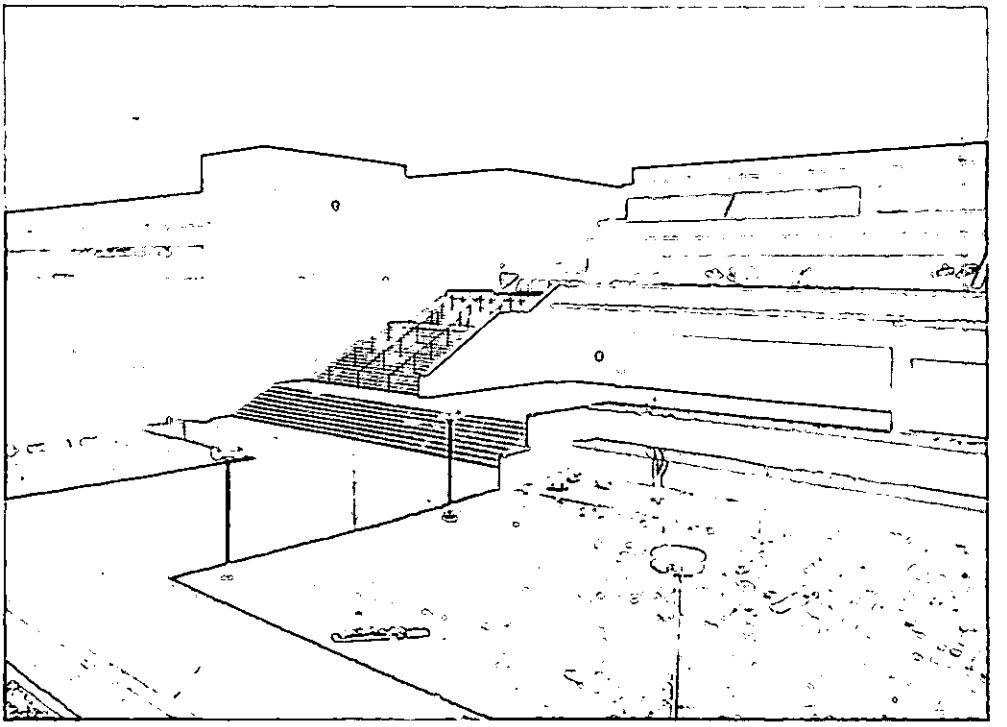
Accreditation

North Lake College is a fully recognized member of:

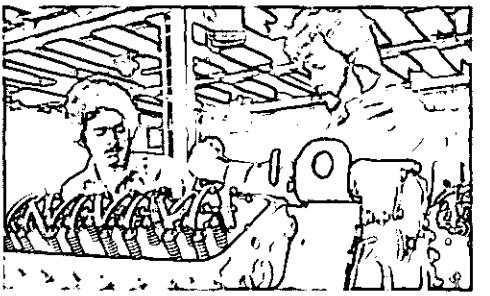
- The Southern Association of Colleges and Schools
- The American Association of Community and Junior Colleges
- The Texas Public Community/Junior College Association
- The Association of Texas Colleges and Universities
- The League for Innovation in the Community College

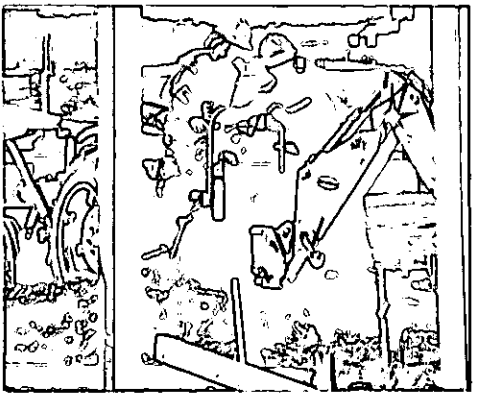
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NORTH LAKE COLLEGE ADMINISTRATION

President	Donald L. Newport	659-5229
Vice President of Instruction	Glen I. Bounds	659-5240
Vice President of Student Services	Walter H. Bowie	659-5242
Vice President of Business Services	Mike Howard	659-5235
Asso. Dean, Technical/Occupational Programs	Clifton Weaver	659-5237
Asso. Dean of Continuing Education	Robert Bolin	659-5204
Asso. Dean, Learning Resource Center	Jim Picquet	659-5340
Asst. Dean, Evening Programs	Joel Vela	659-5206
Director of Admissions and Registration	Stephen Twenge	659-5220
Director of Financial Aid	Paul Chapman	659-5226
Director of Public Information	Susan Aycock	659-5230
Director of Student Development	Sharon Beauchamp	659-5307
Coordinator, Data Processing	Gail Young	659-5232

DIVISION CHAIRPERSONS

Business and Management	Gary Bacon	659-5290
Communications and Humanities	Gary Swaim	659-5270
Mathematics and Technology	Grady Grizzle	659-5320
Science and Technology	B. T. Anderson	659-5250
Social Science and Physical Education	Martha Hughes	659-5350

OTHER TELEPHONE NUMBERS

Admissions and Registration	659-5220
Business Office	659-5244
Community Service Programs	659-5200
Evening Administration	659-5205
Grand Prairie Center	641-2467
Library	659-5347
Placement and Cooperative Education	659-5370
Security and Safety	659-5300
Public Information	659-5230

NORTH LAKE FACULTY AND ADMINISTRATION

Anderson, B.T. ..... Chairperson, Science/Technology
Southwest Texas State Univ., B.S., M.S.; Univ. of Texas at Austin, CSU Study

Anderson, Dianne ..... Vocational Nursing
Baylor Univ., B.S.N.

Ates, Clarence "Chip" ..... Counselor
Oakwood College, B.S.; Oklahoma State Univ., M.S.

Aycock, Susan ..... Director, Public Information
Univ. of Missouri, B.J.; Univ. of Strasbourg, France, Study

Bacon, Gary ..... Chairperson, Business/Management
U.S. Military Academy, B.S.; Southern Methodist Univ., M.B.A.; Univ. of Arizona Naval War College, Study

Baen, John ..... Business/Management
Texas A&M Univ., B.S., M.S., Study

Baty, Ida ..... Counselor
Stephen F. Austin State Univ., B.S., M.S.; Univ. of Northern Colorado, Ed.D.

Beauchamp, Sharon . . . . . Director, Student Development
Brigham Young Univ., B.A.; North Texas State Univ., Study

Bishop, Joe R. . . . . Electricity
North Texas State Univ., B.A.; East Texas State Univ., Study

Blankenship, Patsy . . . . . Business/Management
North Texas State Univ., B.B.A., M.B.E.

Blevins, Larry G. . . . . Electricity
Cooke County College, A.A.; Wayland Baptist College, B.S.O.E.

Bolin, Bill . . . . . Solar Energy/Technology
East Texas State Univ., B.S., Voc. Ed

Bolin, Robert R. . . . . Associate Dean, Continuing Education
Univ. of Wisconsin-Madison, B.B.A., M.S.

Bounds, Glen I. . . . . Vice President, Instruction
Northwestern State Univ. of Louisiana, B.S.; East Texas State Univ., M.S., Study

Bowie, Walter H. . . . . Vice President, Student Services
Central State Univ., Ohio, B.S.; Marshall Univ. of West Virginia, M.S.; Ohio State Univ., Study

Briggs, Cathy . . . . . French
Oklahoma State Univ., B.S.; Univ. of Oklahoma, M.A., Ph.D.

Briggs, Olin . . . . . Journalism
Presbyterian College, B.A.; Univ. of South Carolina, M.A.; Univ. of Alabama, Ph.D.; Post doctoral study: Univ. of Michigan, Texas Christian Univ., Univ. of Dallas, Southwestern Univ.

Brink, Lynn . . . . . Government
Southwestern Univ., B.A.; North Texas State Univ., M.A.

Butler, Alice . . . . . Theatre
North Texas State Univ., B.S.; Stephen F. Austin State Univ., M.A.

Chamberlain, Enrique A. . . . . Head Librarian
North Texas State Univ., B.A.; East Texas State Univ., M.L.S.

Chapman, Paul . . . . . Director, Financial Aid
Trinity Univ., B.A.; Southern Methodist Univ., M.Th.

Cherry, Grady . . . . . English
Stephen F. Austin State Univ., B.A., M.A.; Texas A&M Univ., Ph.D.

Conklin, Lillian M. . . . . English
Univ. of Texas at El Paso, B.A.; North Texas State Univ., M.A.; Texas Christian Univ., Study

Crowley, Lee B. . . . . Instructional Development Consultant
Lamar Univ., B.S.; Texas A&M Univ., M.Ed., Ph.D.

Davis, Annetta N. . . . . Business/Management
Southern Methodist Univ., B.B.A., M.B.A.

Davis, Jeanne . . . . . Psychology
Univ. of Texas at Austin, B.A., M.A.

Evans, Nancy . . . . . Director, Student Development
East Texas State Univ., B.S., M.S.

Faulkner, Bob . . . . . Diesel Mechanics
Eastfield College, East Texas State Univ., Prairie View A&M, Diesel Technology

Farrow, Shirley . . . . . Director Cooperative Education
North Texas State Univ., B.A.; Stephen F. Austin Univ., M.Ed.

Fleming, Richard . . . . . Business/Management
Memphis State Univ., B.S.; Univ. of Dallas, M.S., M.B.A.

Gerbetz, Elizabeth . . . . . Librarian
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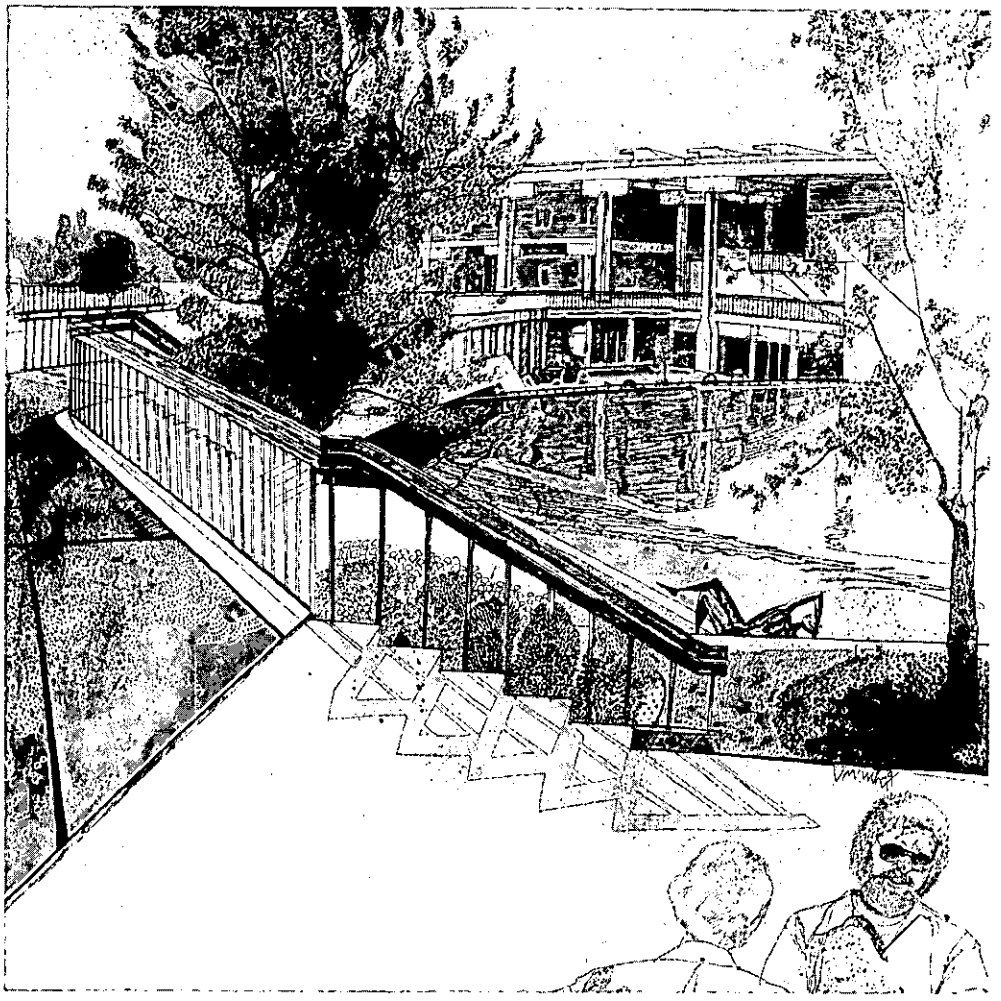
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Richland College

Information, Administration, Faculty



RICHLAND COLLEGE

Richland was the fourth of the seven colleges of the Dallas County Community College District. It enrolled its first students in 1972 and subsequently grew to become the college with the largest enrollment in the District.

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 offers a comprehensive curriculum including academic transfer programs, technical/occupational programs, and non-credit community service courses. In addition, the college offers:

- Center for Choice, helping students make career decisions.
- Assessment Center, providing testing services.
- Center for Independent Study, offering help in developing reading, writing, and study skills.
- Human Resources Development Center, offering various types of training, counseling, and courses.
- Continuing Education Center, offering a variety of services and non-credit courses.
- Cultural Enrichment Center, sponsoring cultural events and activities.
- Everywoman Center, focusing on the needs of women.
- Center for Older Texans
- Center for Children and Youth.
- Staff Development Resource Center, providing training opportunities for business and industry.

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. A spring fed creek forms two picturesque man-made lakes. Campus facilities extend along both sides of the lakes, linked by pedestrian bridges. Richland has a performance hall, a greenhouse, an athletic complex, including an outdoor swimming pool and a Cosmic Theatre and Planetarium featuring programs for the community.

Accreditation

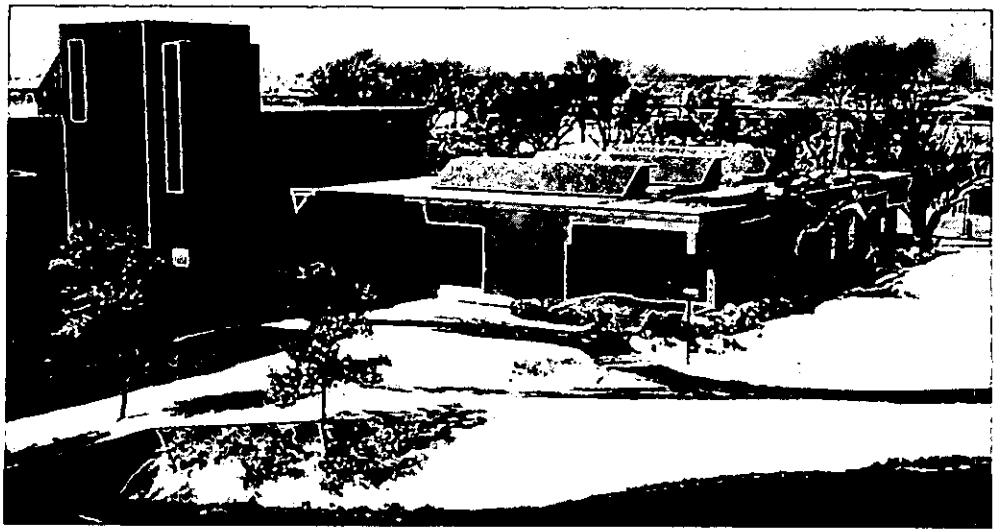
Richland College is a member of:

- The Southern Association of Colleges and Schools
- The American Association of Junior Colleges
- The League for Innovation in the Community College

Richland 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.







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Univ. of Texas, Austin, B.A.; North Texas State Univ., M.Ed.

Sheffield, Charles ..... Theatre Design
Univ. of Texas, Austin, B.F.A., M.F.A.

Shorow, David ..... Economics/Computer Science
Casper College, A.B.S.; Texas Christian Univ., B.B.A., M.B.A.

Sims, Georgia ..... Chairperson, Div. of Math/Science
Texas Christian Univ., B.A., M.S.; Florida State Univ., Ph.D.

Sims, Lyndarae D. ..... Spanish
Florida State Univ., B.A., M.A.; Univ. of Texas, Austin, Ph.D.

Spence, Patricia R. ..... English/Speech/Film
Queens College, C.U.N.Y., B.A.; Univ. of Wisconsin, M.A.

Stacy, Marilyn ..... Counselor
Richland Colege, A.A.; North Texas State Univ., B.S.; Texas Woman's Univ., M.A.

Stanson, John D. ..... Physical Education
State Univ. of New York, Buffalo, B.S.; Texas Tech Univ., M.S.

Stone, Jack E. ..... Vice President of Instruction
North Texas State Univ., B.M., M.Ed., Ph.D.

Stone, Louis R. . . . . Physical Education
Abilene Christian Univ., B.S.E., M.E.

Stout, Dean . . . . . Real Estate/Accounting
Southwestern State Univ., B.S.; Oklahoma State Univ., M.S.

Stover, James W. . . . . Fine Arts
Baylor Univ., B.F.A.; Columbia Univ., M.A.

Stupp, William E. . . . . English
Pennsylvania State Univ., B.A., M.A.

Swedlund, Trudi J. . . . . English
Univ. of Houston, B.A.; Southern Methodist Univ., M.A.; North Texas State Univ., M.Ed.

Taulbee, Thomas L. . . . . Psychology/Sociology
Illinois State Univ., B.S.; East Texas State Univ., M.S.; Ed.D.

Taylor, Lesa . . . . . Director of Human Resource Development
Univ. of Texas, Arlington, M.A.

Taylor, Keith A. . . . . Counselor
East Texas State Univ., B.S., M.S.

Teagardin, Steffani S. . . . . Physical Education
Richland College, A.A.; North Texas State Univ., B.S.; East Texas Univ., M.S.

Thompson, Donald E. . . . . Counselor
State Univ. of New York, Buffalo, B.A.; North Texas State Univ., M.Ed., Ph.D.

Tinnin, Joe . . . . . Psychology
Southern Methodist Univ., B.A.; Texas Christian Univ., M.A.

Towles, Lorraine . . . . . Automated Systems Librarian
Brigham Young Univ., B.A., M.L.S.

Trickel, John A. . . . . American History
Univ. of Tulsa, B.A., M.A.; North Texas State Univ., Ed.D.

Turney, Sandra P. . . . . Theatre
Univ. of Texas, Arlington, B.A.; North Texas State Univ., M.A.

Verett, Gary D. . . . . History/Psychology
Abilene Christian College, B.S., M.Ed.; North Texas State Univ., Ph.D.

Walker, Glen D. . . . . Engineering Technology
Univ. of Oklahoma, B.S., Univ. of Texas at Dallas, M.A.T.

Wallace, Jerry D. . . . . Music
Texas Christian Univ., B.M., M.M.

Ward, Marilyn . . . . . History
Univ. of Texas, Austin, B.A.; Southern Methodist Univ., M.A.

Warwick, Noreen M. . . . . Political Science
El Centro College, A.A.; Southern Methodist Univ., B.A., M.A.

Watson, Billy W. . . . . Speech
Jones Univ., B.A., M.A.

White, Bill A. . . . . Physical Education
Texas Wesleyan College, B.S.; North Texas State Univ., M.Ed.

Whitfield, Ray . . . . . Engineering Technology
Texas A&M Univ., B.S.

Wilkinson, Tom . . . . . Circulation Services Librarian
Southern Methodist Univ., B.A., M.L.A.; Univ. of Texas, Austin, M.A., M.L.S.

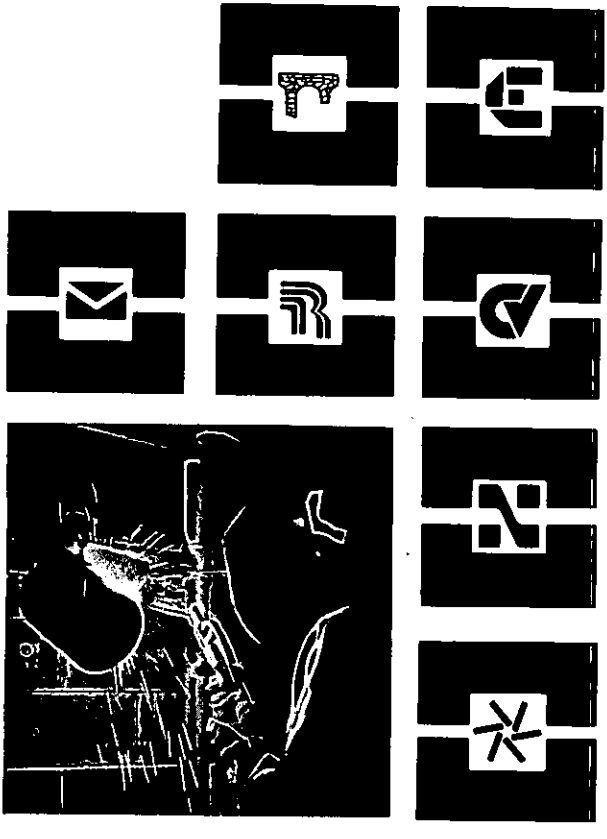
Williams, John O. . . . . Astronomy
Centenary College, B.A.; Univ. of Texas, Austin, M.A.

Wood, Hugh G. . . . . Western Civics/U.S. History
Western State College, B.A.; Univ. of Colorado, M.A., Ph.D.

Zamorano, E. Hector . . . . . Counselor
Texas Christian Univ., B.A., M.A.

Technical/Occupational Programs

For the Seven
Member Colleges
of the Dallas County
Community College District



DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

Occupational Education Programs 80-81	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Accounting Associate & Technician	x	x	x	x	x	x	x
Advertising Art	x						
Air Conditioning & Refrigeration		x	x			x	
Commercial & Residential		x				x	
Animal Medical Technology		x					
Apparel Design				x			
Architectural Technology				x			
Architectural Drafting				x			
Auto Body Technology	x		x				
Automotive Apprenticeship		x					
Automotive Machinist	x						
Automotive Parts	x						
Automotive Technology	x	x	x				
Aviation Maintenance Technology					x		
Airframe and Powerplant					x		
Aviation Technology					x		
Air Cargo Transport					x		
Air Traffic Control					x		
Aircraft Dispatcher					x		
Airline Marketing					x		
Career Pilot					x		
Fixed Base Operations/Airport Mgmt.					x		
Avionics Technology					x		
Banking & Finance							x
Banking Option							x
Credit and Financial Management							x
Credit Union Option							x
Savings and Loan Option							x
Building Trades						x	
Carpentry and Electricity						x	
Child Development Administrative	x						
Child Development Assistant & Associate	x		x				
Child Development Infant-Toddler	x						
Commercial Music		x					
Arranger/Composer/Copyist		x					
Music Retailing		x					
Performing Musician		x					
Recording Technology		x					
Construction Management and Technology							x
Data Processing				x			
Data Processing Operator				x			
Data Processing Programmer				x	x		x
Information Systems				x			
Key Entry Data Control				x			
Small Computer Systems Information Specialist				x			
Diesel Mechanics						x	
Distribution Technology						x	
Drafting and Design Technology			x	x	x		
Electronic Design Option			x				
Educational Paraprofessional				x	x		x
Electrical Apprenticeship						x	
Electronics Technology					x		
Digital Electronics Technology			x				
Engineering Technology							x
Electrical Power, Fluid Power,							x
Electrical Mechanical, and Quality Control							x
Manufacturing Engineering Technology							x
Fire Protection				x			
Food Service				x			
Dietetic Assistant and Technician				x			
Food Service Operations				x			
School Food Service				x			

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

	BHC	CVC	EFC	ECC	MVC	NLC	RLC
Graphic Arts			x				
Graphic Communications			x				
Horology					x		
Hotel/Motel Operations				x			
Interior Design				x			
Legal Assistant				x			
Machine Parts Inspection					x		
Machine Shop					x		
Major Appliance Repair		x					
Medical							
Allied Health Technology				x			
Histotechnology				x			
Nuclear Medicine				x			
Radiation Therapy				x			
Associate Degree Nursing				x			
Dental Assistant Technology				x			
Medical Assistant Technology				x			
Medical Lab Technician				x			
Medical Transcriptionist				x			
Radiography Technology				x			
Respiratory Therapy Technician				x			
Respiratory Therapy Technology				x			
Surgical Technology				x			
Vocational Nursing				x			
Management Careers	x	x	x	x	x	x	x
Administrative Management Option	x	x	x	x	x	x	x
Mid-Management Option	x	x	x	x	x	x	x
Purchasing Management			x			x	
Sales, Marketing and Retail Management Option	x	x					
Small Business Management Option		x		x	x	x	x
Motorcycle Mechanics		x					
Office Careers	x	x	x	x	x	x	x
Insurance Office Careers							x
Office Skills and Systems			x		x		x
Optical Technology						x	
Ornamental Horticulture Technology							x
Florist and Greenhouse Florist							x
Landscape Nursery and Gardener							x
Outboard Marine Engine Mechanics		x					
Pattern Design				x			
Precision Optics Technology						x	
Police Science Technology				x			
Postal Service Administration					x		
Real Estate						x	x
Retail Distribution and Marketing	x	x					
Commercial Design and Advertising		x					
Fashion Merchandising	x	x					
Secretarial Careers	x	x	x	x	x	x	x
Administrative Secretary			x				
Educational Secretary							x
General Secretary	x	x	x	x	x	x	x
Legal Secretary		x				x	
Professional Secretary	x	x	x	x	x	x	x
Small Engine Mechanics		x					
Social Work Associate			x				
Solar Energy Technology						x	
Training Paraprofessionals for Deaf			x				
Transportation Technology			x				
Welding Technology			x		x		

HOME/HOST COURSES: A limited number of courses pertaining to a program which is available at one college (home) might be offered at another college (host). This arrangement would involve only the introductory courses in a program and would necessitate completion of the program at the "Home" college.

RECIPROCAL TUITION AGREEMENT

DCCCD PROGRAMS

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

Program	Campus
Advertising Art	BHC
Air Traffic Control	MVC
Allied Health Technology	ECC
Histotechnology	ECC
Nuclear Medicine	ECC
Radiation Therapy	ECC
Animal Medical Technology	CVC
Apparel Design	ECC
Audio-Video Technician	MVC
Aviation Technology	MVC
Air Cargo	MVC
Aircraft Dispatcher	MVC
Airline Marketing	MVC
Career Pilot	MVC
Fixed Base Operations	MVC
Avionics	MVC
Automotive Parts	BHC
Automotive Machinist	BHC
Building Trades	
Carpentry	NLC
Electrical	NLC
Chemical Quality Control	
Paint and Coatings Control Technician	MVC
Water Quality Control Tech.	MVC
Commercial Music	CVC
Construction Management	RLC
Diesel Mechanics	NLC
Distribution Technology	NLC
Engineering Technology	RLC
Electro Mechanical	RLC
Fluid Power	RLC
Quality Control	RLC
Food Service Operations	ECC
Graphic Communications	EFC
Horology	MVC
Hotel/Motel Operations	ECC
Human Services	EFC
Interior Design	ECC
Legal Assistant	ECC
Motorcycle Mechanics	ECC
Optical Technology	NLC
Outboard Marine Engine Mechanics	CVC
Pattern Design	ECC
Purchasing Management	EFC, NLC
Retail Distribution Mktg.	
Commercial Design and Advertising	CVC
Retail Management	BHC,CVC
Solar Energy Technology	NLC
Vocational Nursing	ECC

TCJC PROGRAMS

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

Program	Campus*
Agribusiness	NW
Civil/Construction Technology	NE
Dental Hygiene	NE
Emergency Medical Technology	NE
Food Store Marketing	NE
Industrial Supervision	S
Labor Studies	NE
Long Term Health Care Administration	NE
Mechanical Technology	S
Cast Metals Technology	S
Nondestructive Evaluation	S
Power Transmission	S
Media Technology	NE
Medical Records Technology	NE
Physical Therapist Assistant	NE
Property Tax Appraisal	NE

*NE—Northeast Campus, NW—Northwest Campus, S—South Campus

STUDENTS CONSIDERING TRANSFER TO A FOUR-YEAR INSTITUTION

The following programs have been designated to provide marketable skills in varied occupations. All courses in these technical/occupational programs are credit courses leading to an associate degree. Some courses are transferable to four-year institutions. Students who plan to transfer are advised to consult with a counselor to develop a technical/occupational course plan which best meets the degree requirements of the chosen four-year college or university.

Brookhaven College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING ASSOCIATE

This two-year program is designed for persons interested in pursuing careers as junior accountants in business, industry, and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles as they relate to external reporting with electives in cost accounting and tax accounting. Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 62 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 62 hours mininmum. The 62 hours must include courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Business			
ACC 201	Principles of Accounting I	48	3
ACC 202	Principles of Accounting II	48	3
ACC 203	Intermediate Accounting	48	3
ACC 204	Managerial Accounting	48	3
ACC 238	Cost Accounting	48	3
or			
ACC 239	Income Tax Accounting		
ACC803 or 804	Cooperative Work Experience	256 or 336	3 or 4
or			
Elective†		48	3
ACC 813 or 814	Cooperative Work Experience	256 or 336	3 or 4
or			
Elective†			
BUS 105	Introduction to Business	48	3
OFC 231	Business Communications	48	3
BUS 234	Business Law	48	3
BUS 237	Organizational Behavior	48	3
MGT 136	Principles of Management	48	3
OFC 160	Office Machines	48	3
OFC 172	Beginning Typing	80	3
or			
OFC 174	Intermediate Typing		
			41-44
Computer Science			
175	Introduction to Computer Science	48	3
Communications			
131	Applied Composition and Speech	48	3
132	Applied Composition and Speech	48	3
Economics			
201	Principles of Economics I	48	3
202	Principles of Economics II	48	3

Government			
201	American Government	48	3
Math			
130	Business Mathematics	48	3
or			
111	Mathematics		
			21

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

† Suggested Electives: HUM 101 Intro to Humanities, MGT 206 Prin. of Marketing, ACC 205 Business Finance, BUS 143 Personal Finance, PSY 105 Intro to Psychology, PSY 131 Human Relations.

ACCOUNTING TECHNICIAN
(Certificate)

The objective of this program is to provide the student with a working knowledge of bookkeeping procedures currently in use in business; to introduce the student to accounting principles supporting bookkeeping procedures; and to give the student practical bookkeeping experience by the use of problem solving. A certificate is awarded upon completion.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 29 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 29 hours minimum. The 29 hours must include courses outlined below.

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Business			
BUS 105	Introduction to Business	48	3
ACC 131	Bookkeeping I	48	3
ACC 132	Bookkeeping II	48	3
OFC 160	Office Machines	48	3
OFC 172	Beginning Typing	80	3
or			
OFC 174	Intermediate Typing		
			14-15
Computer Science			
175	Introduction to Computer Science	48	3
Communications			
131	Applied Composition and Speech	48	3
132	Applied Composition and Speech	48	3
Math			
130	Business Mathematics	48	3
Elective*		48	3
			15

* Suggested Electives: OFC 162 Office Procedures, OFC 231 Bus. Communications, BUS 234 Bus. Law, PSY 131 Human Relations.

ADVERTISING ART ASSOCIATE

This program will provide entry level skills for careers in graphic design and illustration. Courses in the program provide for the development of adequate technical, interpersonal, business and communication skills to function effectively as a free-lance illustrator or designer or as a staff person within an advertising agency or department.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 63 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 63 hours minimum. The 63 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Art			
110	Design I	96	3
111	Design II	96	3
114	Drawing I	96	3
Advertising Art			
110	Introduction to Advertising Art	48	3
111	History & Psychology of Visual Communications	48	3
120	Lettering & Layout	120	4
121	Beginning Illustration	120	4
201	Illustration for Reproduction	120	4
202	Advanced Illustration	120	4
203	Advanced Graphics Design	120	4
204	Advanced Presentations	120	4
205	Professional Practices	48	3
703 or 704	Cooperative Work Experience	256 or 336	3 or 4
713 or 714 or Elective†	Cooperative Work Experience	256 or 336	3 or 4
			48-50

Continued

Communications			
131	Applied Composition and Speech	48	3
132	Applied Composition and Speech	48	3
Humanities			
101	Introduction to Humanities	48	3
Psychology			
131	Human Relations	48	3
Math			
130	Business Mathematics	48	3
			15

†Suggested Electives: ACC 131 Bookkeeping I, MGT 136 Principles of Management, MGT 206 Principles of Marketing, MGT 153 Small Business Management, DES 135 Textiles, RDM 292 Fashion Design, GA 134 Basic Camera Operations, GA 136 Copy Preparation, DFT 183 Basic Drafting, PHO 110 Introduction to Photography and Photo-Journalism.

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTO BODY REPAIR AND PAINTING ASSOCIATE

This program has been developed to prepare the student for entry level employment within the automotive industry emphasizing auto body repair and painting industry. The student will develop skills and acquire knowledge via practical applications in the Auto Body laboratory and through work experience at participating businesses.

All the automotive courses will be presented in an individualized self-paced format. Students will be able to personalize course completion rates to fit their particular backgrounds, interests, and abilities.

Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 61 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 61 hours minimum. The 61 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Body			
160	Basic Hand Tools & Power Equipment	60	2
161	Safety in Auto Industry	30	1
162	Selection & Application of Materials	90	3
163	Principles & Techniques of Paint	120	4
164	Paint Mix & Spray Gun Operations	90	3
165	Principles & Techniques of Welding	60	2
166	Auto Metal Correction & Repair	210	7
200	Body Fillers & Sanding Techniques	90	3
201	Polishing, Detailing and Minor Surface Repair	60	2
202	Automotive Glass & Trim	60	2
203	Special Effects	30	1
204	Paint Problems	60	2
205	Frame Repair	60	2
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
803 or 804	Cooperative Work Experience	256 or 336	3 or 4
			40-42

Continued

Math			
130	Business Mathematics	48	3
Business			
ACC 131	Bookkeeping I	48	3
or			
ACC 201	Principles of Accounting I		
MGT 153	Small Business Management	48	3
BUS 237	Organizational Behavior	48	3
or			
PSY 131	Human Relations		
Communications			
131	Applied Composition & Speech	48	3
Humanities			
101	Introduction to Humanities	48	3
Elective			3
			21

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTO BODY REPAIR
(Certificate)

This one-year program has been developed to prepare the student for entry level employment within the automotive industry as an auto body repair apprentice. Students will develop skills through actual experience in the automotive body repair laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Students may elect to earn a certificate after completing the technical courses or they may wish to apply the certificate courses towards the Associate Arts and Sciences Degree. Credit can be earned for on the job experience.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 33 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 33 hours minimum. The 33 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Body			
160	Basic Hand Tools & Power Equipment	60	2
161	Safety in the Auto Industry	30	1
162	Selection & Application of Materials	90	3
163	Principles & Techniques of Painting	120	4
165	Principles & Techniques of Welding	60	2
166	Auto Metal Correction & Repair	210	7
200	Body Fillers, Filing, and Sanding Techniques	90	3
201	Polishing, Detailing & Surface Repairs	60	2
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
			27-28
Math			
130	Business Mathematics	48	3
Management			
153	Small Business Management	48	3
			6

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTOMOTIVE PAINTING
(Certificate)

This one-year program has been developed to prepare the student for entry level employment within the automotive industry as a painting apprentice. Students will develop skills through actual experience in auto painting laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Students may elect to earn a certificate after completing the technical courses or they may wish to apply the certificate courses towards the Associate Arts and Sciences Degree. Credit can be earned for on-the-job experience.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 30 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 30 hours minimum. The 30 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Body			
160	Basic Hand Tools & Power Equipment	60	2
161	Safety in the Auto Industry	30	1
162	Selection and Application of Materials	90	3
163	Principles & Techniques of Painting	120	4
200	Body Fillers, Filing, and Sanding Techniques	90	3
201	Polishing, Detailing and Minor Surface Repairs	60	2
203	Special Effects	30	1
204	Paint Problems	60	2
703 or 704	Cooperative Work Experience	256 or 336	3 or 4
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
			24-26
Management			
MGT 153	Small Business Management	48	3
Math			
130	Business Mathematics	48	3
			6

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTOMOTIVE MACHINIST ASSOCIATE

This program has been developed to provide students with the basic skills needed for entry level employment as a machinist in the automotive industry. Students will develop skills through actual experience in the automotive machinist laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Credit can be earned for on-the-job experience. Successful completion leads to the Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 62 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 62 hours minimum. The 62 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Technology			
121	Fundamentals of the Internal Combustion Engine	90	3
122	Major Engine Services	120	4
125	Electrical Systems	90	3
126	Brake Systems	120	4
215	Front-End Alignment	150	5
			19
Automotive Parts			
100	Orientation to the Auto Parts Industry	60	2
130	Automotive Equipment, Tools & Access.	60	2
170	Automotive Vehicle Components	90	3
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
803 or 804	Cooperative Work Experience	256 or 336	3 or 4
			13-15

Continued

Communications			
131	Applied Composition & Speech	48	3
Math			
195	Technical Mathematics	48	3
Business			
ACC 131	Bookkeeping I	48	3
ACC 201	Principles of Accounting I	48	3
MGT 136	Principles of Management	48	3
MGT 153	Small Business Management	48	3
BUS 237	Organizational Behavior		
PSY 131	Human Relations	48	3
Government			
201	American Government	48	3
Humanities			
101	Introduction to Humanities	48	3
Elective†		3	3
			30

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

†Suggested Electives: MGT 230-Salesmanship, MGT 206-Principles of Marketing, MGT 136-Principles of Management, ACC 131-Bookkeeping I, ACC 201-Principles of Accounting, BUS 237-Organizational Behavior, CS 175-Introductions to Computer Science.

AUTOMOTIVE MACHINIST ASSISTANT
(Certificate)

This one-year program has been developed to provide students with the basic skills needed for entry level employment in the auto parts field as a machinist assistant. Students will develop skills through actual experiences in the automotive laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Students may elect to earn a certificate after completing the technical courses or they may apply the certificate courses toward the Associate Arts and Sciences degree. Credit can be earned for on-the-job experience.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 33 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 33 hours minimum. The 33 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Technology			
121	Fundamentals of the Internal Combustion Engine	90	3
122	Major Engine Services	120	4
125	Electrical Systems	90	3
126	Brake Systems	120	4
215	Front-End Alignment	150	5
			19
Automotive Parts			
100	Orientation to the Auto Parts Industry	60	2
130	Automotive Equipment, Tools & Access.	60	2
170	Automotive Vehicle Components	90	3
			7
Mathematics			
195	Technical Mathematics	48	3
Physics			
131	Applied Physics	96	4
			7

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTOMOTIVE TECHNICIAN ASSISTANT
(Certificate)

This program prepares the student for entry level employment in the automotive industry as an auto mechanics assistant. Students will develop skills through actual experience in the automotive mechanics laboratories and through cooperative on-the-job training. All courses will be presented in an individualized self-paced format. Students may elect to earn a certificate after completing the technical courses or they may wish to apply the certificate courses towards the Associate Arts and Sciences Degree. Credit can be earned for on-the-job experience.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 33 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 33 hours minimum. The 33 hours must include the courses outlined below.

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Technology			
120	Automotive Systems-Minor Services	90	3
121	Fundamentals of the Internal Combustion Engine	90	3
123	Engine Analysis and Tune-Up	150	5
124	Fuel Induction Systems	90	3
125	Electrical Systems	90	3
214	Heating & Air Conditioning Systems	90	3
215	Front-End Alignment	150	5
220	Customer Service	30	1
			26
Mathematics			
195	Technical Mathematics	48	3
Physics			
131	Applied Physics	96	4
			7

AUTOMOTIVE TECHNICIAN ASSOCIATE

This program prepares the student for entry level employment in the automotive industry as an auto mechanic. The program emphasizes both the theory and applied practical skills of mechanics. Students may receive credit for prior training or experience.

All the automotive courses will be presented in an individualized self-paced format. Students will be able to personalize course completion rates to fit their particular backgrounds, interests, and abilities. Credit can be earned for on-the-job experience. Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 65 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 65 hours minimum. The 65 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Auto Technology			
120	Automotive Systems-Minor Services	90	3
121	Fundamentals of the Internal Combustion Engine	90	3
122	Major Engine Services	120	4
123	Engine Analysis and Tune-Up	150	5
124	Fuel Induction Systems	90	3
125	Electrical Systems	90	3
126	Brake Systems	120	4
214	Heating & Air Conditioning Systems	90	3
215	Front-End Alignment	150	5
216	Standard Transmissions and Drive Trains	90	3
217	Automatic Transmissions-Minor Services	60	2
218	Automatic Transmissions-Major Services	120	4
220	Customer Services	30	1
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
813 or 814	Cooperative Work Experience	256 or 336	3 or 4
			49 or 51
Humanities			
101	Introduction to Humanities	48	3
Mathematics			
195	Technical Mathematics	48	3
Government			
201	American Government	48	3
Physics			
131	Applied Physics	96	4
Communications			
131	Applied Composition and Speech	48	3
			16

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTOMOTIVE PARTS SALES AND SERVICE ASSOCIATE

This program has been developed to provide students with the basic skills needed for entry level employment in the automotive parts sales and service industry. Students will develop skills through actual experience in the automotive parts laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences. Credit can be earned for on-the-job experience.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 64 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 64 hours minimum. The 64 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Automotive Parts			
100	Orientation to the Auto Parts Industry	60	2
110	Auto Parts Safety	30	1
130	Automotive Equipment, Tools and Accessories	60	2
150	Auto Parts Sales Techniques	60	2
160	Auto Parts Inventory Operations	90	3
170	Auto Vehicle Components	90	3
180	Order Processing and Analysis	60	2
190	Role of the Counterperson	30	1
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
803 or 804	Cooperative Work Experience	256 or 336	3 or 4
813 or 814	Cooperative Work Experience	256 or 336	3 or 4
Auto Technology			
121	Fundamentals of the Internal Combustion Engine	90	3
125	Electrical Systems	90	3
Elective			3
			34-37
Business			
ACC 131 or ACC 201	Bookkeeping I Principles of Accounting I	48	3
MGT 136	Principles of Management	48	3
MGT 153	Small Business Management	48	3
MGT 206	Principles of Marketing	48	3
MGT 230	Salesmanship	48	3

Government			
201	American Government	48	3
Computer Science			
175	Introduction to Computer Science	48	3
Humanities			
101	Introduction to Humanities	48	3
Communications			
131	Applied Composition & Speech	48	3
Math			
130	Business Mathematics	48	3
			30

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

AUTOMOTIVE PARTS COUNTER ASSISTANT
(Certificate)

This one-year program has been developed to provide students with the basic skills needed for entry level employment in the automotive parts industry. Students will develop skills through actual experiences in the automotives parts laboratories and through cooperative on-the-job training. All the courses will be presented in an individualized self-paced format. Students may elect to earn a certificate after completing the technical courses or they may wish to apply the certificate courses toward the Associate Arts and Sciences degree. Credit can be earned for on-the-job experience.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 34 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 34 hours minimum. The 34 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Automotive Parts			
100	Orientation to the Auto Parts Industry	60	2
110	Auto Parts Safety	30	1
130	Automotive Equipment, Tools and Accessories	60	2
150	Auto Parts Sales Techniques	60	2
160	Auto Parts Inventory Operations	90	3
170	Auto Vehicle Components	90	3
180	Order Processing & Analysis	60	2
190	The Role of the Counterperson	30	1
713 or 714	Cooperative Work Experience	256 or 336	3 or 4
			19-20
Automotive Technology			
121	Fundamentals of the Internal Combustion Engine	90	3
Math			
130	Business Mathematics	48	3
Management			
MGT 153	Small Business Management	48	3
Communications			
131	Applied Composition & Speech	48	3
Elective†			3
			15

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

† Suggested Electives: MGT 230 Salesmanship, MGT 206 Principles of Marketing, MGT 136 Principles of Management, ACC 131 Bookkeeping I, ACC 201 Principles of Accounting I, BUS 237 Organizational Behavior, CS 175 Introduction to Computer Science.

CHILD DEVELOPMENT ASSOCIATE

The Brookhaven Child Development program offers students an in-depth study of young children from birth to eight years of age in conjunction with The Brookhaven Parent-Child Study Center that provides students day-to-day involvement with young children. Successful completion of the Child Development program gives the student an Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 62 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 62 hours minimum. The 62 hours must include the courses outlined below.

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Child Development			
121	Intro to Early Chilhood Development	120	4
122	Early Childhood Learning Environments	120	4
123	Basic First Aid, Nutrition and Health Care	90	3
142	Early Childhood Development 0-3 yrs.	90	3
143	Early Childhood Development 3-5 yrs.	90	3
144	Early Childhood Development 5-8 yrs.	90	3
222	Intro to Administration of Centers	90	3
223	Guiding Young Children	90	3
241	Parents & Child Care-Giver	90	3
Human Development			
106	Personal & Social Growth	48	3
Sociology			
101	Introduction to Sociology	48	3
203	Marriage & Family	48	3
			38
Humanities			
101	Introduction to Humanities	48	3
Communications			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Govennment			
GVT 201	American Government	48	3
GVT 202	American Government	48	3
Electives*		90	3
		90	3
		90	3
			24

Continued

*Electives to be selected from the following:		TOTAL CONTACT HOURS	CREDIT HOURS
CD 139	Environmental Settings for Infant & Toddler Care	120	4
CD 242	Advanced Administration Practices for Child Care Facilities	90	3
CD 243	Early Childhood Development Special Projects	90	3
CD 253	Abuse Within the Family	64	3
CD 812	Cooperative Work Experience	176	2
CD 813	Cooperative Work Experience	256	3

CHILD DEVELOPMENT ADMINISTRATIVE
(Certificate)

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

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 31 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 31 hours minimum. The 31 hours must include the courses outlined below.

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Child Development			
121	Intro to Early Childhood Development	120	4
123	Basic First Aid, Nutrition and Health Care	90	3
223	Guiding Young Children		
142	Early Childhood Development 0-3 yrs.	90	3
143 or 144	Early Childhood Development 3-5 yrs. Early Childhood Development 5-8 yrs.	90	3
222	Intro to Administration of Centers	90	3
242	Advanced Administrative Practices for Child Care	90	3
			19
Human Development			
106	Personal & Social Growth	48	3
Communications			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Humanities			
101	Introduction to Humanities	48	3
			12

CHILD DEVELOPMENT INFANT-TODDLER
(Certificate)

This one-year program includes an introduction to the various areas of child care work including the history and philosphy of child service programs with emphasis on the needs of infants and toddlers.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 32 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 32 hours minimum. The 32 hours must include the courses outlined below.

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Child Development			
121	Intro to Early Childhood Development	120	4
123	Basic First Aid, Nutrition and Health Care	90	3
139	Environmental Settings for Infants	120	4
142	Early Childhood Development 3 yrs.	90	3
223	Guiding Young Children	90	3
241	Parents & Child Care-Giver	90	3
			20
Communication			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Humanities			
101	Introduction to Humanities	48	3
Human Development			
106	Personal & Social Growth	48	3
			12

CHILD DEVELOPMENT ASSISTANT
(Certificate)

This one-year program includes an introduction to the various areas of child care work, including the history, philosphy and practices of specialized care, with emphasis on the educational, recreational and health needs of the child.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 32 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 32 hours minimum. The 32 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Child Development			
121	Intro to Early Childhood Development	120	4
122	Early Childhood Learning Environment	120	4
123	Basic First Aid, Nutrition and Health Care	90	3
142	Early Childhood Development 0-3 yrs.	90	3
143	Early Childhood Development 3-4 yrs	90	3
			17
Government			
201	American Government	48	3
202	American Government	48	3
Communications			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Human Development or Psychology			
HD 106 or PSY 105	Personal & Social Growth Introduction to Psychology	48	3
			15

MANAGEMENT CAREERS

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences. Credit can be earned for on-the-job experience in the Mid-Management and Sales, Marketing, and Retail Management options.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 60 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 60 hours minimum. The 60 hours must include the courses outlined below.

CORE COURSES (Required for all options)		TOTAL CONTACT HOURS	CREDIT HOURS
BUS 105	Introduction to Business	48	3
ACC 201	Principles of Accounting I or	48	3
ACC 131	Bookkeeping I and		(3)
ACC 132	Bookkeeping II		(3)
ECO 201	Principles of Economics I	48	3
ECO 202	Principles of Economics II	48	3
CS 175	Introduction to Computer Science	48	3
MGT 136	Principles of Management	48	3
PSY 131	Human Relations	48	3
HUM 101	Introduction to the Humanities	48	3
			24-27
SUPPORT COURSES (Required for all options)			
COM 131	Applied Composition and Speech*	48	3
COM 132	Applied Composition and Speech*	48	3
	Social Science elective or		
	Humanities elective	48	3
MTH 111	Math. for Business & Economics I or	48	3
MTH 112	Math. for Business & Economics II or		
MTH 130	Business Math		
			12

ADMINISTRATIVE MANAGEMENT OPTION		TOTAL CONTACT HOURS	CREDIT HOURS
ACC 202	Principles of Accounting II	48	3
MGT 206	Principles of Marketing	48	3
BUS 234	Business Law	48	3
MGT 242	Personnel Administration	48	3
BUS 237	Organizational Behavior	48	3
OFC 231	Business Communications	48	3
Electives†			9
			27

MID-MANAGEMENT OPTION		TOTAL CONTACT HOURS	CREDIT HOURS
MGT 150	Management Training	320	4
MGT 154	Management Seminar: Role of Supervision	32	2
MGT 151	Management Training	320	4
MGT 155	Management Seminar: Personnel Management	32	2
MGT 250	Management Training	320	4
MGT 254	Management Seminar: Organizational Development	32	2
MGT 251	Management Training	320	4
MGT 255	Management Seminar: Business Strategy, the Decision Process & Problem Solving	32	2
Elective†			3
			27

SALES, MARKETING, AND RETAIL MANAGEMENT OPTION		TOTAL CONTACT HOURS	CREDIT HOURS
MGT 137	Principles of Retailing	48	3
MGT 206	Principles of Marketing	48	3
MGT 230	Salesmanship	48	3
MGT 233	Advertising & Sales Promotion	48	3
RDM 245	Sales Management	48	3
RDM 246	Management & Marketing Cases	48	3
RDM 703	Cooperative Work Experience	256	3
RDM 803	Cooperative Work Experience	256	3
Elective†			3
			27

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

† Suggested Electives: MGT 212 Special Problems in Business, OFC 160 Office Machines, OFC 172 Beginning Typing.

RETAIL DISTRIBUTION AND MARKETING
FASHION MERCHANDISING ASSOCIATE

This Retail Distribution and Marketing option is a two-year program designed to prepare students for career opportunities in fashion merchandising. Upon completion of the program, the student will receive an Associate Degree in Applied Arts and Sciences. Credit can be earned for on-the-job experience.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 60 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 60 hours minimum. The 60 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Business			
BUS 105	Introduction to Business	48	3
MGT 206	Principles of Marketing	48	3
MGT 230	Salesmanship	48	3
MGT 137	Retailing Principles	48	3
MGT 233	Advertising & Sales Promotion	48	3
RDM 290	Fashion Buying	48	3
RDM 291	Fashion Merchandising	48	3
RDM 292	Fashion Design	48	3
RDM 803	Cooperative Work Experience	256	3
or			
RDM 247	Simulated Business Training I	48	3
RDM 813	Cooperative Work Experience	256	3
or			
RDM 248	Simulated Business Training II		
Design			
135	Textiles	48	3
			33

Computer Science			
175	Introduction to Computer Science	48	3
Speech			
105	Fundamentals of Public Speaking	48	3
Communications			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Math			
130	Business Mathematics	48	3
Psychology			
131	Human Relations	48	3
Electives†		48	3
		48	3
		48	3
			27

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

† Suggested Electives: MGT 136 Principles of Management, MGT 153 Small Business Management, MGT 242 Personnel Administration, RDM 245 Sales Management, RDM 246 Marketing and Management Cases.

SECRETARIAL CAREERS
(Certificate)

The purpose of this program is to prepare students with the basic skills necessary to enter the secretarial field. A certificate is issued upon completion of the program.

Certificate Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 36 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 36 hours minimum. The 36 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Business			
ACC 131	Bookkeeping I	48	3
or			
ACC 201	Principles of Accounting I		
BUS 105	Introduction to Business	48	3
OFC 159	Beginning Shorthand†	80	4
or Elective			
OFC 160	Office Machines	48	3
OFC 162	Office Procedures	48	3
OFC 165	Introduction to Word Processing	48	3
OFC 166	Intermediate Shorthand‡	80	4
or			
OFC 266	Advanced Shorthand		
OFC 172	Beginning Typing	80	3
or Elective			
OFC 174	Intermediate Typing	48	2
OFC 273	Advanced Typing	48	2
			30
Communications			
131	Applied Composition & Speech	48	3
Math			
130	Business Mathematics	48	3
			6

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

Students will be placed in typewriting and shorthand courses at a proficiency level determined by previous training, experience, and/or placement tests. Students who are initially placed in OFC 273 or OFC 266 may choose an elective in lieu of a second typing or shorthand course.

†OFC 103-Speedwriting Theory may be substituted for OFC 159.

‡OFC 104-Speedwriting Dictation may be substituted for OFC 166.

SECRETARIAL CAREERS ASSOCIATE

The primary objective of the Secretarial Careers program is to prepare students to become competent secretaries capable of performing office and clerical tasks and duties within public and private firms and agencies. Intensive training is provided in basic secretarial skills such as shorthand, typewriting, and office machines. Emphasis is also placed on English, math, and human relation skills. Successful completion of the two-year curriculum leads to the Associate Degree in Applied Arts and Sciences.

Requirements:

Courses may be taken in any sequence after consultation with the instructor or counselor. A total of 66 credit hours must be completed. Courses numbered 99 and below may not be counted toward the 66 hours minimum. The 66 hours must include the courses outlined below.*

COURSE		TOTAL CONTACT HOURS	CREDIT HOURS
Business			
ACC 131	Bookkeeping I	48	3
or			
ACC 201	Principles of Accounting I		
ACC 132	Bookkeeping II	48	3
or			
ACC 202	Principles of Accounting II		
BUS 105	Introduction to Business	48	3
OFC 159	Beginning Shorthand	80	4
or Elective			
OFC 160	Office Machines	48	3
OFC 162	Office Procedures	48	3
OFC 165	Introduction to Word Processing	48	3
OFC 166	Intermediate Shorthand	80	4
or			
OFC 266	Advanced Shorthand		
OFC 172	Beginning Typing	80	3
or Elective			
OFC 174	Intermediate Typing	48	2
OFC 231	Business Communications	48	3
OFC 265	Word Processing Procedures	48	3
OFC 273	Advanced Typing	48	2
OFC 275	Secretarial Procedures	48	3
OFC 803 or 804	Cooperative Work Experience	256 or 336	3 or 4
or Elective			
OFC 813 or 814	Cooperative Work Experience	256 or 336	3 or 4
			48-50

Continued

Computer Science			
175	Introduction to Computer Science	48	3
Communications			
131	Applied Composition & Speech	48	3
132	Applied Composition & Speech	48	3
Math			
130	Business Mathematics		
Psychology			
131	Human Relations	48	3
Humanities			
101	Introduction to Humanities	48	3
			18

* Students should refer to course descriptions on all support courses and electives to insure they have the appropriate prerequisites.

† Suggested Electives: MGT 136 Principles of Management, BUS 143 Personal Finance, BUS 234 Business Law, BUS 237 Organizational Behavior, PSY 105 Introduction to Psychology, SPE 105 Fundamentals of Public Speaking, OFC 256 Office Management, OFC 143 Contemporary Topics in Office Careers.

Students will be placed in typewriting and shorthand courses at a proficiency level determined by previous training, experience, and/or placement tests. Students who are initially placed in OFC 273 or OFC 266 may choose an elective in lieu of a second typing or shorthand course.

Cedar Valley College

Curriculum Patterns
For Technical/Occupational Programs



CEDAR VALLEY COLLEGE CAREER PROGRAMS

An important function of Cedar Valley College is the offering of technical/ occupational career programs.

The purpose of these programs is to meet the needs of students who desire to enter immediately into technical/ occupational employment areas. All career programs offered at Cedar Valley College are designed to meet job level skills as determined by consultation with occupational advisory committees. Members of these committees are leaders in business and industry in the metroplex area. The career programs reflect the needs of business and industry in the Dallas area for trained personnel and the desire of students in the area for specific career programs.

Several options are available to students. They may take those courses that lead to a Certificate of Completion or to an Associate of Applied Arts and Sciences Degree. Another option may be to take one course or a sequence of courses within a career program that would result in job upgrading, skill improvement, or simply personal satisfaction. Students should consult with a faculty advisor for more specific information about particular career programs.

The career programs available at Cedar Valley College and the certificate and/or degree requirements for each program follow.

CAREER PROGRAMS
AT CEDAR VALLEY COLLEGE

- Accounting Associate
- Accounting Technician
- Air Conditioning, Residential
- Animal Medical Technology
- Automotive Technology
- Autmotive Technology Apprenticeship
- Commercial Music
  - Arranger/Composer/Copyist
  - Music Retailing
  - Performing Musician
  - Recording Technican
- Major Appliance Repair
- Management Careers
  - Administrative Management
  - Mid-Management
  - Sales, Marketing and Retail Management
  - Small Business Management
- Motorcycle Mechanics
- Office Careers
- Outboard Marine Engine Mechanics
- Retail Distribution and Marketing
  - Commercial Design and Advertising
  - Fashion Merchandising
- Secretarial Careers
  - Secretary
  - Legal Secretary
- Small Engine Mechanics

ACCOUNTING ASSOCIATE

(Associate Degree Program)

This two-year program is designed to prepare the students 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.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
OFC 160	Office Machines	3
ACC 201	Principles of Accounting I	3
MTH 130 or	Business Mathematics	3
MTH 111	Mathematics for Business & Economics I	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		15
SECOND SEMESTER		
MGT 136	Principles of Management	3
ACC 202	Principles of Accounting II	3
CS 175	Introduction to Computer Sciences	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
OFC 172 or	Beginning Typewriting	3
ACC 703 or	Work Experience	3
ACC 704	Work Experience	4
		15-16
THIRD SEMESTER		
ACC 203	Intermediate Accounting	3
ACC 238 or	Cost Accounting	3
ACC 239	Income Tax Accounting	3
GVT 201	American Government	3
ECO 201	Principles of Economics I	3
	*Elective	3-4
		15-16
FOURTH SEMESTER		
ACC 204	Managerial Accounting	3
OFC 231	Business Communications	3
BUS 234	Business Law	3
BUS 237	Organizational Behavior	3
ECO 202	Principles of Economics II	3
	*Elective	3-4
		18-19

Continued

*SUGGESTED ELECTIVES

BUS 143	Personal Finance	3
ACC 205	Business Finance	3
MGT 206	Principles of Marketing	3
PSY 105	Introduction to Psychology	3
PSY 131	Human Relations	3
ACC 803	Cooperative Work Experience	3
ACC 804	Cooperative Work Experience	4
ACC 813	Cooperative Work Experience	3
ACC 814	Cooperative Work Experience	4

ACCOUNTING TECHNICIAN

(Certificate Program)

This program will provide students with a knowledge of bookkeeping procedures which are currently used in business. Students will also be introduced to accounting principles which support bookkeeping procedures, and acquire practical bookkeeping experience through problem solving.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131	Bookkeeping I	3
OFC 172 or	Beginning Typewriting	3
OFC 174	Intermediate Typewriting	2
COM 131	Applied Composition and Speech	3
MTH 130	Business Mathematics	3
		14-15
SECOND SEMESTER		
ACC 132	Bookkeeping II	3
OFC 160	Office Machines	3
COM 132	Applied Composition and Speech	3
CS 175	Introduction to Computer Sciences	3
*Elective		3
		15

*SUGGESTED ELECTIVES (Three Hours Required)

OFC 162	Office Procedures	3
OFC 231	Business Communications	3
BUS 234	Business Law	3
PSY 131	Human Relations	3

AIR CONDITIONING — RESIDENTIAL

(Certificate Program)

This program is designed to train students to meet entry level 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, gas and electric furnaces, humidifiers, and the design of residential systems. Throughout the entire program an emphasis is placed on current techniques as used by residential air conditioning technicians.

		CR. HRS.
FIRST SEMESTER		
AC 150	Basic Principles of Electricity	3
AC 160	Basic Principles of Refrigeration	3
MTH 195	Technical Mathematics	3
PHY 131	Applied Physics	4
		13
SECOND SEMESTER		
AC 155	Advanced Electrical Circuits	3
AC 165	Vapor Compression Systems	3
AC 170	Pipefitting Procedures	3
AC 175	Residential Load Calculations	3
		12
THIRD SEMESTER		
AC 180	Residential Cooling Systems	3
AC 185	Residential Heating Systems	3
AC 240	Air Distribution Systems	3
AC 245	Residential Systems Service	3
ACR 703 or	Cooperative Work Experience	3
ACR 704 or	Cooperative Work Experience	4
*Elective		3-4
		15-16

(Associate Degree Program)		CR. HRS.
FIRST SEMESTER		
AC 150	Basic Principles of Electricity	3
AC 160	Basic Principles of Refrigeration	3
MTH 195	Technical Mathematics	3
PHY 131	Applied Physics	4
		13
SECOND SEMESTER		
AC 155	Advanced Electrical Circuits	3
AC 165	Vapor Compression Systems	3
AC 170	Pipefitting Procedures	3
AC 175	Residential Load Calculations	3
SS 131	American Civilization	3
		15

Continued

THIRD SEMESTER

AC 180	Residential Cooling Systems	3
AC 185	Residential Heating Systems	3
AC 240	Air Distribution Systems	3
BPR 177	Blueprint Reading	2
COM 131	Applied Composition & Speech	3
MAR 240	Professional Service Skills, or	
PSY 131	Human Relations	3
		17

FOURTH SEMESTER

AC 245	Residential Systems Service	3
AC 250	Air-Conditioning Equipment Selection	3
AC 255	Air Distribution Systems Design	3
AC 703	Cooperative Work Experience	3
AC 704	Cooperative Work Experience	4
*Elective		3-4
		15-17

*ELECTIVES

Three hours of electives are required for the Residential AC Certificate, or the Residential AC Associate Degree. Following is a list of recommended electives.

AC 280	Industrial Air-Conditioning Systems	3
ACR 803	Cooperative Work Experience	3
ACR 804	Cooperative Work Experience	4
BUS 105	Introduction to Business	3
ACC 131	Bookkeeping	3
MGT 136	Principles of Management	3
COM 132	Applied Composition & Speech	3
MAR 240	Professional Service Skills	3
PSY 131	Human Relations	3

MAR 240 or PSY 131 required in the Associate Degree Program.

ANIMAL MEDICAL TECHNOLOGY

(Associate Degree Program)

This program is designed to help meet the need for graduate animal technicians as indicated by the Texas Veterinary Medical Association. The American Veterinary Medical Association (AVMA) describes an "Animal Technician" as "a person knowledgeable in the care and handling of animals, in basic principles of normal and abnormal life processes, and in routine laboratory and clinical procedures." He is primarily an assistant to veterinarians, biological research workers and other scientists. The AMT curriculum is designed to provide the graduate with information, experience and skills needed to perform all technical duties in a practice excluding diagnosis, prescription and surgery and whose performance of such duties is not in conflict with the state practice act.

Admission in the AMT program is limited and applicants will be screened for approval. Students are encouraged to develop a strong academic background in the sciences, including mathematics, biology and chemistry.

		CR. HRS.
FIRST SEMESTER — FALL		
AMT 101	Medical Terminology for Animal Technicians	1
AMT 110	Animal Care and Sanitation	2
AMT 130	Introduction to AMT	4
AMT 137	Anatomy and Physiology I	4
AMT 138	Biochemistry	5
MTH 139	Applied Mathematics	3
		19
SECOND SEMESTER — SPRING		
AMT 111	Animal Care and Sanitation	2
AMT 231	Anatomy and Physiology II	4
AMT 241	Clinical Pathology I	5
AMT 139	Pharmacology	3
COM 131	Applied Composition and Speech	3
		17
SUMMER SESSION		
AMT 112	Animal Care and Sanitation	2
AMT 230	Anesthetic and Surgical Assisting Techniques	4
AMT 243	Clinical Pathology II	5
AMT 244	Large Animal Assisting Techniques	3
PSY 131	Human Relations	3
		17

Continued

THIRD SEMESTER — FALL

AMT 703	Cooperative Work Experience	3
*Elective		2-4
		5-7

FOURTH SEMESTER — SPRING

AMT 210	Animal Care and Sanitation	2
AMT 237	Radiography	3
AMT 242	Exotic and Laboratory Animal Medicine	3
AMT 249	Animal Hospital Nursing	4
MGT 153	Small Business Management	3
		15

*SUGGESTED ELECTIVES

AMT 245	Senior Clinical Seminar	2
AMT 250	Special Projects in AMT	2
OFC 172	Beginning Typing	3
ACC 131	Bookkeeping I	3
HUM 101	Introduction to Humanities	3
SS 131	American Civilization	3
SS 132	American Civilization	3
Physical Education		
AMT 702	Cooperative Work Experience	2
AMT 703	Cooperative Work Experience	3

AUTOMOTIVE TECHNOLOGY

(Associate Degree Program)

This program is designed to train students to meet entry level requirements in the field of Automotive Technology. This will include theory, diagnosis, repair, overhaul, and maintenance of automobiles. Included in this program is the study of automotive engines, front suspension, steering, brakes, power trains, standard and automatic transmissions, electrical and ignition systems, and tune-up procedures. Throughout the entire program an emphasis is placed on accepted shop techniques used throughout the automotive service industry.

		CR. HRS.
FIRST SEMESTER		
AT 140	Automotive Services	6
MTH 195	Technical Mathematics	3
*Elective		3
		12
SECOND SEMESTER		
AT 150	Front Suspension, Steering & Brakes	6
AT 160	Automotive Engines	6
COM 131	Applied Composition & Speech	3
		15
SUMMER SESSION		
PSY 131	Applied Physics	4
THIRD SEMESTER		
AT 170	Automotive Systems	6
AT 260	Power Trains	6
*Elective		3
		15
FOURTH SEMESTER		
AT 270	Automatic Transmissions	6
AT 280	Automotive Tune-up	6
SS 131	American Civilization	3
		15

(Certificate Program)		CR. HRS.
FIRST SEMESTER		
AT 140	Automotive Services	6
MTH 195	Technical Mathematics	3
		9
SECOND SEMESTER		
AT 150	Front Suspension, Steering & Brakes	6
AT 160	Automotive Engines	6
		12
THIRD SEMESTER		
AT 170	Automotive Systems	6
AT 260	Power Trains	6
		12
FOURTH SEMESTER		
AT 270	Automatic Transmissions	6
AT 280	Automotive Tune-up	6
		12
*ELECTIVES (Six hours required, selected from the following.)		
COM 132	Applied Composition & Speech	3
PSY 131	Human Relations	3
BPR 177	Blueprint Reading	2
BUS 105	Introduction to Business	3
ACC 131	Bookkeeping I	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
AT 713	Work Experience	3
AT 714	Work Experience	4
AT 813	Work Experience	3
AT 814	Work Experience	4

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP

(Associate Degree Program)

The Automotive Technology Apprenticeship program is offered in cooperation with the National Automobile Dealer Association, and the Bureau of Apprenticeship Training, U.S. Department of Labor. This is a three year program that provides full time "on-the-job" apprenticeship training along with college credit courses. Upon successful completion of the program, the apprentice will receive an Associate of Applied Arts and Science degree.

ADMISSION TO THE PROGRAM

1. Admission is by individual application.
2. Personal interview with Automotive Technology Apprenticeship instructor.
3. Personal interview and acceptance as an apprentice by automotive dealership.
4. Applicants must demonstrate a sincere desire to become a professional automotive service technician.
5. Fulfill all requirements for admission to the college.

For further information, contact: Division of Industrial Technology

		CR. HRS.
FIRST SEMESTER		
ATA 100	Automotive Fundamentals	3
MTH 195	Technical Mathematics	3
ATA 191	Internship I	3
		9
SECOND SEMESTER		
ATA 101	Basic Electrical Systems	3
ATA 102	Suspension, Steering, & Brake Systems	3
ATA 192	Internship II	3
		9
FIRST SUMMER SESSION		
PHY 131	Applied Physics	4
COM 131	Applied Composition & Speech	3
		7

Continued

THIRD SEMESTER		
ATA 103	Advanced Electrical Systems	3
ATA 104	Engine Tune-up Procedures	3
ATA 193	Internship III	3
		9
FOURTH SEMESTER		
ATA 105	Basic Engine Repair	3
ATA 200	Engine Overhaul Procedures	3
ATA 294	Internship IV	3
		9
SECOND SUMMER SESSION		
ATA 201	Automotive Air Conditioning & Heating System	3
SS 131	American Civilization	3
		6
FIFTH SEMESTER		
ATA 202	Clutches, Differentials, & Drive Shafts	3
ATA 203	Transmissions	3
ATA 295	Internship V	3
		9
SIXTH SEMESTER		
ATA 204	Automotive Service Department Management	3
ATA 205	Automotive Parts Department Management	3
ATA 296	Internship VI	3
		9

COMMERCIAL MUSIC - ARRANGER/COMPOSER/COPYIST

(Associate Degree Program)

This program is designed to prepare the student majoring in Arranging/Composing/Copying to demonstrate writing skills required for arranging and composition for small and large instrumental and vocal groups in all areas of commercial music; i.e., jazz, rock, "pop", country/western etc. Knowledge of standard engraving techniques will make possible professional copying of the student's work and of other arrangers and composers. Experience is stressed through actual writing for campus organizations and composing of jingles and background music for all campus productions.

		CR. HRS.
FIRST SEMESTER		
MUS 101	Freshman Theory	4
MUS 117	Piano Class I	1
MUS 121-243	Applied Music	1-2
	†Ensemble	1
MUS 192	Music in America	3
MUS 193	Improvisation	3
MUS 199	Recital	1
		14-16
SECOND SEMESTER		
MUS 102	Freshman Theory	4
MUS 118	Piano Class II	1
MUS 121-243	Applied Music	1-2
	†Ensemble	1
MUS 194	Jazz Workshop	3
MUS 196	Business of Music	3
MUS 199	Recital	1
BUS 105	Introduction to Business	3
		17-18
SUMMER SESSIONS		
COM 131 or	Applied Composition & Speech	3
ENG 101	Composition & Expository Reading	3
COM 132 or	Applied Composition & Speech	3
ENG 102	Composition & Literature	3
		6
THIRD SEMESTER		
MUS 221-243	Applied Music	1-2
	†Ensemble	1
MUS 195	Introduction to Synthesizer	2
MUS 199	Recital	1
MUS 190	Survey of Recording	2
MUS 292	Arranging/Orchestration	3
MUS 293 or	Independent Study	3-4
MUS 803 or	Work Experience	3-4
MUS 804	Work Experience	2-4
*Elective		2-4
		15-19

Continued

FOURTH SEMESTER

MUS 221-243	Applied Music	1-2
	†Ensemble	1
MUS 199	Recital	1
MUS 203	Composition	3
MUS 293	Independent Study, or	3-4
MUS 813	Work Experience, or	3-4
MUS 814	Work Experience	3-4
*Elective		2-4
		11-15

*ELECTIVES

Following is a list of suggested electives.

MUS 197	Studio Technology	2
MUS 295	Advanced Synthesizer Techniques	2
BUS 234	Business Law	3
ECO 105	Introduction to Business	3
ECO 201	Principles of Economics I	3
MUS 110	Music Literature	3
MUS 111	Music Literature	3

†ENSEMBLES

Select from the following list of Ensemble courses.

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

COMMERCIAL MUSIC — MUSIC RETAILING

(Certificate Program)

This program is designed to prepare the music major in retailing for the music industry job market. To include music skills necessary as well as knowledge of the business world, i.e., business law, salesmanship, small business management, culminating in work experience coordinated through local merchants who have expressed interest in this area.

		CR. HRS.
FIRST SEMESTER		
MUS 101	Freshman Theory	4
MUS 117	Piano Class I	1
MUS 121-143	Applied Music	1
	†Ensemble	1
MUS 192	Music in America	3
MUS 199	Recital	1
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
BUS 105	Introduction to Business	3
		17
SECOND SEMESTER		
MUS 102	Freshman Theory	4
MUS 118	Piano Class II	1
MUS 121-143	Applied Music	1
	†Ensemble	1
MUS 199	Recital	1
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
MGT 137	Principles of Retailing	3
MGT 153	Small Business Management	3
MGT 230	Salesmanship	3
		20

(Associate Degree Program)		CR. HRS.
FIRST SEMESTER		
MUS 101	Freshman Theory	4
MUS 117	Piano Class I	1
MUS 121-143	Applied Music	1
	†Ensemble	1
MUS 192	Music in America	3
MUS 199	Recital	1
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
BUS 105	Introduction to Business	3
		17
SECOND SEMESTER		
MUS 102	Freshman Theory	4
MUS 118	Piano Class II	1
MUS 121-143	Applied Music	1
	†Ensemble	1
MUS 199	Recital	1
BUS 137	Principles of Retailing	3
BUS 230	Salesmanship	3
MGT 153	Small Business Management	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
		20-21
THIRD SEMESTER		
MUS 121-143	Applied Music	1
MUS 199	Recital	1
MUS 803 or	Work Experience	3-4
MUS 804	Work Experience	3-4
PSY 131	Human Relations	3
BUS 234	Business Law	3
*Elective		3
		14
FOURTH SEMESTER		
MUS 121-243	Applied Music	1-2
MUS 199	Recital	1
MUS 813 or	Work Experience	3-4
MUS 814	Work Experience	3-4
ACC 201	Principles of Accounting	3
*Elective		3
		12-13

*ELECTIVES

Six hours of electives are required for this program. Following is a list of suggested electives.

ECO 201	Principles of Economics	3
SOC 204	American Minorities	3
SPE 105	Fundamentals of Public Speaking	3
	Foreign Language	7

†ENSEMBLES

Select from the following list of Ensemble courses.

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



COMMERCIAL MUSIC — PERFORMING MUSICIAN

(Associate Degree Program)

This program is designed to prepare the instrumental and vocal student for performance in commercial music, to include jazz, rock, "pop", country/western, etc. This will cover performance practices, styles, solo and ensemble work, repertoire for small and large groups, culminating in actual performance situations in cooperation with local performing groups.

		CR. HRS.
FIRST SEMESTER		
MUS 101	Freshman Theory	4
MUS 117	Piano Class I	1
MUS 121-243	Applied Music	1-2
	†Ensemble	1
MUS 192	Music in America	3
MUS 193	Improvisation	3
MUS 199	Recital	1
		14-15
SECOND SEMESTER		
MUS 102	Freshman Theory	4
MUS 118	Piano Class II	1
MUS 121-243	Applied Music	1-3
	†Ensemble	1
MUS 194	Jazz Workshop	3
MUS 196	Business of Music	3
MUS 199	Recital	1
BUS 105	Introduction to Business	3
		17-19
SUMMER SESSIONS		
COM 131 or	Applied Composition & Speech	3
ENG 101	Composition & Expository Reading	3
COM 132 or	Applied Composition & Speech	3
ENG 102	Composition & Literature	3
		6
THIRD SEMESTER		
MUS 121-243	Applied Music	1-2
	†Ensemble	1
MUS 199	Recital	1
MUS 190	Survey of Recording	2
MUS 292	Arranging/Orchestration	3
MUS 293 or	Independent Study	3
MUS 803 or	Work Experience	3-4
MUS 804	Work Experience	3-4
*Elective		2-4
		13-17

FOURTH SEMESTER

MUS 121-243	Applied Music	1-2
	†Ensemble	1
MUS 199	Recital	1
MUS 197	Studio Technology	2
MUS 813 or	Work Experience	3-4
MUS 814	Work Experience	3-4
*Elective		2-4
		10-14

*ELECTIVES

Following is a list of suggested electives.

MUS 110	Music Literature	3
MUS 111	Music Literature	3
MUS 201	Sophomore Theory	4
MUS 202	Sophomore Theory	4
MUS 203	Composition	3
MUS 295	Advanced Synthesizer Techniques	2
	Social Science and/or Foreign Language	6

†ENSEMBLES

Select from the following list of Ensemble courses.

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

COMMERCIAL MUSIC — RECORDING TECHNOLOGY

(Certificate 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; mixdown 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.

		CR. HRS.
FIRST SEMESTER		
MUS 113	Fundamentals of Music	3
MUS 192	Music in America	3
MUS 199	Recital	1
MUS 190	Survey of Recording	2
MUS 191	Survey of Recording Laboratory	1
COM 131	Applied Composition and Speech	3
		13
SECOND SEMESTER		
MUS 114	Fundamentals of Music	3
MUS 151	Voice Class I	1
MUS 196	Business of Music	3
MUS 199	Recital	1
MUS 197	Studio Technology	2
MUS 198	Studio Technology Laboratory	1
	*Electives	3
		14
SUMMER SESSIONS		
MUS 296	Recording Studio Practices	3
MUS 297	Studio Production	3
		6

*ELECTIVES

Three hours of electives are required and shall be selected from music courses.

(Associate Degree Program)		CR. HRS.
FIRST SEMESTER		
MUS 101	Freshman Theory	4
MUS 117	Piano Class I	1
MUS 121-143;		
MUS 221-243	Applied Music	1-2
MUS 192	Music in America	3
MUS 199	Recital	1
	†Ensemble	1
MUS 190	Survey of Recording	2
MUS 191	Survey of Recording Lab	1
		14-15
		(14 required)
SECOND SEMESTER		
MUS 102	Freshman Theory	4
MUS 118	Piano Class II	1
MUS 121-143;		
MUS 221-243	Applied Music	1-2
MUS 151	Voice Class I	1
MUS 199	Recital	1
	†Ensemble	1
MUS 197	Studio Technology	2
MUS 198	Studio Technology Lab	1
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		15-16
		(15 required)
THIRD SEMESTER		
MUS 121-143;		
MUS 221-243	Applied Music	1-2
MUS 195	Introduction to Synthesizer	2
MUS 199	Recital	1
MUS 293 or	Independent Study	3
MUS 703	Work Experience	3
	†Ensemble	1
MUS 296	Recording Studio Practices	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
*Electives		2
		16-17
		(16 required)

Continued

*FOURTH SEMESTER

MUS 121-143;		
MUS 221-243	Applied Music	1-2
MUS 196	Business of Music	3
MUS 199	Recital	1
MUS 293 or	Independent Study	3
MUS 713	Work Experience	3
	†Ensemble	1
MUS 297	Studio Production	3
BUS 105	Introduction to Business	3
		15-16
		(15 required)

†ENSEMBLE

Four hours of Ensemble are required and shall be selected from the following list of courses.

MUS 103	Guitar Ensemble	1
MUS 150	Chorus	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

*ELECTIVES

Two hours of electives are required for this program. Following is a list of suggested electives.

MUS 201	Sophomore Theory	4
MUS 202	Sophomore Theory	4
MUS 203	Composition	3
MUS 292	Arranging/Orchestration	3
PHY 131	Applied Physics	4
SP 105	Fundamentals of Public Speaking	3

MAJOR APPLIANCE REPAIR

(Certificate Program)

This program is designed to train students to meet entry level requirements in the field of Major Appliance Repair. This will include the installation, repair, and maintenance of the major appliances found in most homes. Included in this program is the study of domestic refrigerators and freezers, clothes washers and dryers, dishwashers, trash compactors, disposers, and gas and electric ranges. Throughout the entire program an emphasis is placed on current techniques as used by major appliance repair technicians.

		CR. HRS.
FIRST SEMESTER		
AC 150	Basic Principles of Electricity	6
MTH 195	Technical Mathematics	3
		9
SECOND SEMESTER		
AC 160	Basic Principles of Refrigeration	3
THIRD SEMESTER		
MAR 200	Domestic Refrigerators & Freezers	6
MAR 210	Domestic Dishwashers, Disposers, & Trash Compactors	6
		12
FOURTH SEMESTER		
MAR 220	Domestic Laundry Equipment	6
MAR 230	Domestic Cooking Equipment	6
MAR 240	Professional Service Skills	3
		15

(Associate Degree Program)		CR. HRS.
FIRST SEMESTER		
AC 150	Basic Electricity	6
MTH 195	Technical Mathematics	3
SS 131	American Civilization	3
		12
SECOND SEMESTER		
AC 160	Basic Refrigeration	10
COM 131	Applied Composition & Speech	3
		13
SUMMER SESSION		
PHY 131	Applied Physics	4
*Elective		3
		7
THIRD SEMESTER		
MAR 200	Domestic Refrigerators & Freezers	6
MAR 210	Domestic Dishwashers, Disposers & Trash Compactors	6
	*Elective	3
		15
FOURTH SEMESTER		
MAR 220	Domestic Laundry Equipment	6
MAR 230	Domestic Cooking Equipment	6
MAR 240	Professional Service Skills	3
		15

*ELECTIVES (Six hours required from the following.)

COM 132	Applied Composition & Speech	3
PSY 131	Human Relations	3
BUS 105	Introduction to Business	3
ACC 131	Bookkeeping I	3
MGT 136	Principles of Management	3
MGT 153	Small Business Management	3
BPR 177	Blueprint Reading	2
AC 713	Work Experience	3
AC 714	Work Experience	4
AC 813	Work Experience	3
AC 814	Work Experience	4

MANAGEMENT CAREERS

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Successful completion of the program leads to the Associate Degree in Applied Arts and Sciences.

CORE COURSES (Required for all options)		CR. HRS.
BUS 105	Introduction to Business	3
ACC 201 or	Principles of Accounting I	3
ACC 131 and	Bookkeeping I	(3)
ACC 132	Bookkeeping II	(3)
ECO 201	Principles of Economics I	3
ECO 202	Principles of Economics II	3
CS 175	Introduction to Computer Science	3
MGT 136	Principles of Management	3
PSY 131	Human Relations	3
HUM 101	Introduction to the Humanities	3
		27

SUPPORT COURSES (Required for all options)		
COM 131	Applied Composition and Speech†	3
COM 132 or	Applied Composition and Speech†	3
	Social Science elective or Humanities elective	
MTH 111 or	Math. for Business & Economics I	3
MTH 112 or	Math. for Business & Economics II	
MTH 130	Business Math	
		12

ADMINISTRATIVE MANAGEMENT OPTION

The Administrative Management option offers a continuation of the traditional management and business studies begun in the required core courses.

		CR. HRS.
ACC 202	Principles of Accounting II	3
MGT 206	Principles of Marketing	3
BUS 234	Business Law	3
MGT 242	Personnel Administration	3
BUS 237	Organizational Behavior	3
OFC 231	Business Communications	3
Electives		9
		27

MID-MANAGEMENT OPTION

The Mid-Management option is a cooperative plan with members of the business community to prepare students for career opportunities in management. During the option, students will take courses in business and related areas, while working in a paid or part-time position in a sponsoring organization.

Admission to this Option

1. Admission is by individual application only.
2. Personal interview with any Mid-Management instructor.
3. Applicants should demonstrate a sincere desire for a management career in business.
4. Fulfill all requirements for admission to the college.

		CR. HRS.
MGT 150	Management Training	4
MGT 154	Management Seminar: Role of Supervision	2
MGT 151	Management Training	4
MGT 155	Management Seminar: Personnel Management	2
MGT 250	Management Training	4
MGT 254	Management Seminar: Organizational Development	2
MGT 251	Management Training	4
MGT 255	Management Seminar: Business Strategy, the Decision Process & Problem Solving	2
Elective*		3
		27

SALES, MARKETING, AND RETAIL MANAGEMENT OPTION

The Sales, Marketing, and Retail Management option is designed to prepare students for career opportunities in retail management, sales, or marketing. During the first year, students take the management core courses. During the second year, students will specialize in courses in retail management, sales, and marketing. Students also will have the opportunity to work in sales, marketing, or retail areas through a sponsoring business firm.

		CR. HRS.
MGT 137	Principles of Retailing	3
MGT 206	Principles of Marketing	3
MGT 230	Salesmanship	3
MGT 233	Advertising & Sales Promotion	3
RDM 245	Sales Management	3
RDM 246	Management & Marketing Cases	3
RDM 703	Cooperative Work Experience	3
RDM 803	Cooperative Work Experience	3
Elective*		3
		27

SMALL BUSINESS MANAGEMENT OPTION

The Small Business Management option is a cooperative plan with members of the business community to prepare students for career opportunities in management. During the option, students will take courses in business and related areas, while working in a paid or part-time position in a sponsoring organization. In this particular option an emphasis will be placed on the operation of small business.

Admission to the Option

1. Admission is by individual application only.
2. Personal interview with any Management instructor.
3. Applicants should demonstrate a sincere desire for a management career in business.
4. Fulfill all requirements for admission to the College.

		CR. HRS.
MGT 206	Principles of Marketing	3
MGT 153	Small Business Management	3
MGT 157	Small Business Bookkeeping & Accounting Practices	3
MGT 210	Small Business Capitalization, Acquisition & Finance	3
MGT 211	Small Business Operations	3
BUS 234	Business Law	3
Electives*		9
		27

† Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an electilve when substituting ENG 101 and 102.

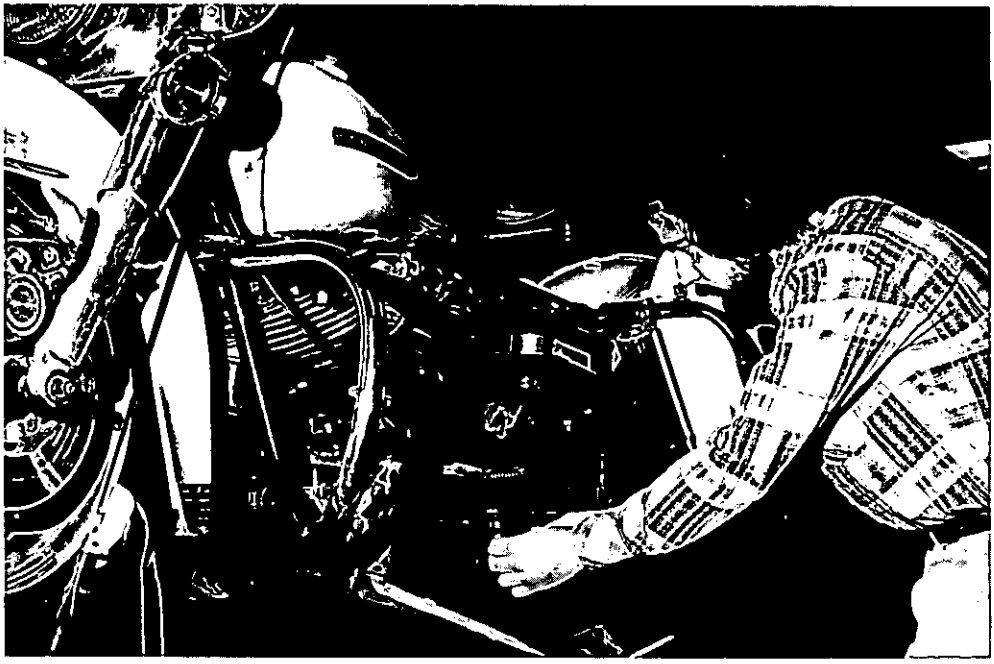
* Recommended electives: OFC 160, OFC 172, MGT 212.

MOTORCYCLE MECHANICS

(Certificate Program)

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.

		CR. HRS.
FIRST SEMESTER		
MM 104	Motorcycle Service Principals	3
MM 105	Motorcycle Tune-Up	3
MM 106	Motorcycle Two Stroke Engine/Transmission	3
		9
SECOND SEMESTER		
MM 107	Motorcycle Four Storke/Transmission	3
MM 108	Motorcycle Electrical Systems	3
MM 109	Motorcycle Chassis and Drive Systems	3
		9
SUMMER SESSION		
MM 703 or	Cooperative Work Experience	3
MM 704	Cooperative Work Experience	4
		3-4



OFFICE CAREERS

(Certificate Program)

The purpose of this program is to provide students with the basic skills necessary to enter the general office field in a minimum amount of time. Intensive training in the basic office skills is provided — including office machines, typewriting, records management, and other related business subjects.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131 or	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
OFC 160	Office Machines	3
OFC 172	Beginning Typing	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		15
SECOND SEMESTER		
OFC 162	Office Procedures	3
OFC 165	Introduction to Word Processing	3
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
MTH 130	Business Math	3
		17

(Associate Degree Program)

This two-year program is designed to train students for positions in the general office field such as clerk-typist, file clerk, receptionist, and word processing operator. There is a general orientation to the business world plus intensive training in typewriting, office machines, bookkeeping, and word processing. Management principles and human relations skills are also stressed.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131 or	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
OFC 160	Office Machines	3
OFC 172	Beginning Typing	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		15
SECOND SEMESTER		
OFC 162	Office Procedures	3
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
HUM 101	Introduction to Humanities	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
MTH 130	Business Math	3
		17

Continued

THIRD SEMESTER

ACC 132 or	Bookkeeping II	3
ACC 202	Principles of Accounting II	3
OFC 165	Introduction to Word Processing	3
BUS 234	Business Law	3
OFC 273	Advanced Typing	2
PSY 131	Human Relations	3
		17

FOURTH SEMESTER

BUS 237	Organizational Behavior	3
OFC 256	Office Management	3
OFC 265	Word Processing Practices & Procedures	3
OFC 275	Secretarial Procedures	3
	*Elective	3
		15

*SUGGESTED ELECTIVES (Three hours required.)

MGT 136	Principles of Management	3
OFC 803 or	Cooperative Work Experience	3
OFC 813	Cooperative Work Experience	3
CS 175	Introduction to Computer Science	3
ECO 201	Principles of Economics I	3
PSY 105	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3
OFC 143	Contemporary Topics in Office Careers	1

OUTBOARD MARINE ENGINE MECHANICS

(Certificate Program)

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.

		CR. HRS.
FIRST SEMESTER		
OE 114	Outboard Engine Service Principals	3
OE 115	Outboard Engine Tune-Up	3
OE 116	Outboard Engine Powerhead Overhaul	3
		9
SECOND SEMESTER		
OE 117	Outboard Engine Lower Unit Overhaul	3
OE 118	Outboard Engine Electrical Systems	3
OE 723 or	Cooperative Work Experience	3
OE 724	Cooperative Work Experience	4
		9-10

RETAIL DISTRIBUTION AND MARKETING — COMMERCIAL DESIGN AND ADVERTISING

(Associate Degree Program)

This two-year program is designed to prepare students for employment as a graphic artist in the fields of advertising, display, illustration, publications, packaging design, and software production. During the first year of the program students will take basic courses in drawing and design, plus courses in business, communications, economics, and psychology. In the second year, students will be studying courses in commercial art in addition to business courses and also have the option of working in the commerical art area through a sponsoring business firm.

		CR. HRS.
FIRST SEMESTER		
ART 110	Design I	3
ART 114	Drawing I	3
MTH 130 or	Business Math	3
ACC 201 or	Accounting I	3
ACC 131	Bookkeeping I	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
PSY 131	Human Relations	3
		15
SECOND SEMESTER		
ART 111	Design II	3
ART 115	Drawing II	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
CS 175	Introduction to Computer Sciences	3
ECO 201	Principles of Economics I	3
		15
THIRD SEMESTER		
ART 122	Advertising Design	3
ART 210	Commercial Art I	3
MGT 206	Principles of Marketing	3
RDM 703 or	Work Experience	3
RDM 247	Simulated Business Training I	3
SPE 105	Fundamentals of Public Speaking	3
		15
FOURTH SEMESTER		
ART 211	Commercial Art II	3
ART 213	Commercial Design Group	3
MGT 230	Salesmanship	3
MGT 233	Advertising and Sales Promotion	3
RDM 713 or	Work Experience	3
RDM 248	Simulated Business Training II	3
*Elective		3
		18

*ELECTIVES

Following is a list of recommended electives:

MGT 136	Principles of Management	3
MGT 137	Principles of Retailing	3
RDM 246	Marketing and Management Cases	3

RETAIL DISTRIBUTION AND MARKETING
FASHION MERCHANDISING

(Associate Degree Program)

This two-year program is designed to prepare students for career opportunities in the field of fashion merchandising. During the first year of the program, students will take basic courses in business, communications, economics, and psychology. During the second year, students will be studying specialized courses in fashion buying, merchandising, and design and also have the option of working in the fashion merchandising area through a sponsoring business firm.

		CR. HRS.
FIRST SEMESTER		
MGT 137	Principles of Retailing	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
MTH 130 or	Business Math	3
ACC 201 or	Accounting	3
ACC 131	Bookkeeping I	3
PSY 131	Human Relations	3
*Elective		3
		15
SECOND SEMESTER		
MGT 230	Salesmanship	3
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
CS 175	Introduction to Computer Sciences	3
ECO 201	Principles of Economics I	3
*Elective		3
		15
THIRD SEMESTER		
RDM 206	Principles of Marketing	3
RDM 290	Fashion Buying	3
RDM 291	Fashion Merchandising	3
RDM 703 or	Work Experience	3
RDM 247	Simulated Business Training I	3
*Elective		3
		15
FOURTH SEMESTER		
MGT 233	Advertising and Sales Promotion	3
RDM 292	Fashion Design	3
DES 135	Textiles	3
RDM 713 or	Work Experience	3
RDM 248	Simulated Business Training II	3
SPE 105	Fundamentals of Public Speaking	3
*Elective		3
		18

*SUGGESTED ELECTIVES (Twelve hours required.)

MGT 136	Principles of Management	3
MGT 242	Personnel Administration	3
RDM 245	Sales Management	3
RDM 246	Marketing and Management Cases	3

SECRETARIAL CAREERS

(Certificate Program)

The purpose of this program is to provide students with basic skills necessary to enter the secretarial field in a minimum amount of time. Intensive training is provided in the basic secretarial skills such as shorthand, typewriting, and office machines. Emphasis is also placed on English and math skills.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131 or	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
OFC 159 or	Beginning Shorthand	4
OFC 103	Speedwriting Theory	4
OFC 172	Beginning Typing	3
MTH 130	Business Mathematics	3
		16
SECOND SEMESTER		
OFC 162	Office Procedures	3
OFC 165	Introduction to Word Processing	3
OFC 166 or	Intermediate Shorthand	4
OFC 104	Speedwriting Dictation	3
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
		14-15
SUMMER SESSION		
OFC 160	Office Machines	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		6

SECRETARIAL CAREERS

(Associate Degree Program)

The purpose of this program is to prepare students to become alert and responsive secretaries capable of performing the tasks required of them in the modern business office. Extensive training is provided in the basic secretarial skills such as shorthand, typewriting, office machines, and word processing. Emphasis is also placed on English, math, and human relations skills. Decision making skills are stressed during the advanced courses.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131 or	Bookkeeping I	3
ACC 201	Principles of Accounting I	3
OFC 159	Beginning Shorthand	4
OFC 172	Beginning Typing	3
MTH 130	Business Mathematics	3
		16
SECOND SEMESTER		
OFC 162	Office Procedures	3
OFC 166	Intermediate Shorthand	4
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
HUM 101	Introduction to Humanities	3
		15
SUMMER SESSION		
OFC 160	Office Machines	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		6
THIRD SEMESTER		
OFC 165	Introduction to Word Processing	3
OFC 266	Advanced Shorthand	4
OFC 273	Advanced Typing	2
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
*Elective		3-4
		15-16
FOURTH SEMESTER		
OFC 265	Word Processing Practices & Procedures	3
OFC 275	Secretarial Procedures	3
PSY 131	Human Relations	3
CS 175	Introduction to Computer Sciences	3
*Elective		3-4
		15-16

*SUGGESTED ELECTIVES (A minimum of six hours of electives are required.)

MGT 136	Principles of Management	3
BUS 143	Personal Finance	3
OFC 143	Contemporary Topics in Office Careers	1
BUS 234	Business Law	3
BUS 237	Organizational Behavior	3
OFC 256	Office Management	3
PSY 105	Introduction to Psychology	3
SPE 105	Fundamentals of Public Speaking	3
OFC 803	Cooperative Work Experience	3
OFC 804	Cooperative Work Experience	4
OFC 813	Cooperative Work Experience	3
OFC 814	Cooperative Work Experience	4



LEGAL SECRETARY

(Associate Degree Program)

The Legal Secretary Program is designed to prepare the student for a legal secretarial career. Intensive training is provided in secretarial skills such as typewriting, shorthand, word processing, and office machines. Emphasis is also placed on English, math, and human relations skills. In addition, students receive specialized training in legal secretarial procedures and legal terminology and transcription. Upon satisfactory completion of the program, students will receive an Associate in Applied Arts and Sciences Degree.

		CR. HRS.
FIRST SEMESTER		
BUS 105	Introduction to Business	3
ACC 131 or	Bookkeeping I	3
ACC 201	Principles of Accounting I	4
OFC 159	Beginning Shorthand	3
OFC 172	Beginning Typing	3
MTH 130	Business Mathematics	16
SECOND SEMESTER		
OFC 162	Office Procedures	3
OFC 166	Intermediate Shorthand	4
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
HUM 101	Introduction to Humanities	3
		15
SUMMER SESSION		
OFC 160	Office Machines	3
COM 131 or	Applied Composition and Speech	3
ENG 101	Composition and Expository Reading	3
		6
THIRD SEMESTER		
OFC 165	Introduction to Word Processing	3
OFC 167	Legal Terminology and Transcription	3
OFC 273	Advanced Typing	2
COM 132 or	Applied Composition and Speech	3
ENG 102	Composition and Literature	3
OFC 266	Advanced Shorthand	4
		15
FOURTH SEMESTER		
OFC 265	Word Processing Practices & Procedures	3
OFC 275	Secretarial Procedures	3
OFC 274	Legal Secretarial Procedures	3
PSY 131	Human Relations	3
CS 175	Introduction to Computer Science	3
		15

CPS CREDIT

Credit toward the Associate in Applied Arts and Sciences Degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

ACC131	Bookkeeping I	3
OFC 159	Beginning Shorthand	4
OFC 162	Office Procedures	3
OFC 166	Intermediate Shorthand	4
OFC 172	Beginning Typing	3
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
BUS 234	Business Law	3
OFC 275	Secretarial Procedures	3
PSY 131	Human Relations	3
		31

In order to receive credit, the applicant must:

1. Request direct notification be given to the Registrar of the College by the Institute for Certifying Secretaries that the applicant has passed all sections of the exam within the last 10 years;
2. Earned 12 hours credit for courses at Cedar Valley before the advanced standing credit is posted on the applicant's record.

SMALL ENGINE MECHANICS

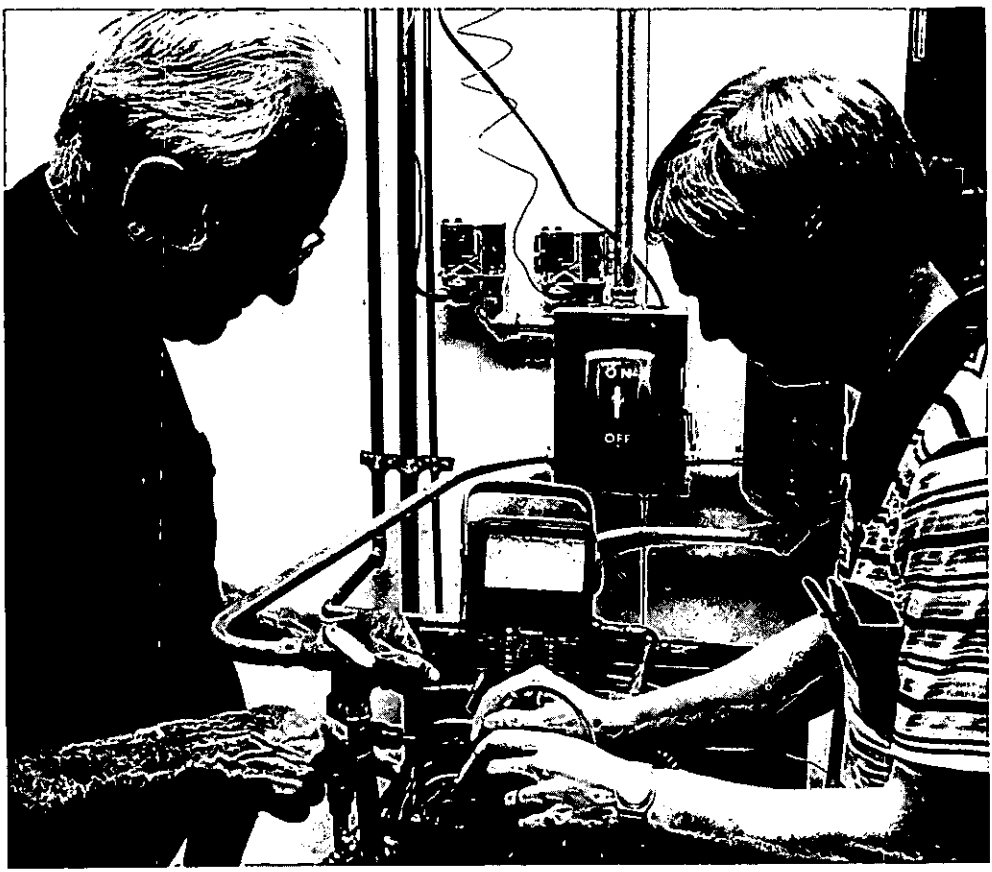
(Certificate Program)

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.

		CR. HRS.
FIRST SEMESTER		
SE 124	Small Engine Service Principles	3
SE 125	Small Engine Tune-Up	6
SE 126	Small Engine Two-Stroke Overhaul	3
		9
SECOND SEMESTER		
SE 127	Small Engine Four Stroke Overhaul	3
SE 128	Small Engine Electrical Systems	3
SE 733 or	Cooperative Work Experience	3
SE 734	Cooperative Work Experience	4
		9-10

Eastfield College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING ASSISTANT

(Certificate Program)

The objective of the program is to provide the student with a working knowledge of accounting procedures currently in use in business; to introduce the student to accounting principles supporting bookkeeping procedures; and to give the student practical accounting experience by the use of problem solving.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BUS 105 — Introduction to Business	3	0	3
ACC 201 — Principles of Accounting I	3	0	3
COM 131 — Applied Composition and Speech	3	0	3
MTH 130 — Business Mathematics	3	0	3
*Elective			2-3
			14-15
SPRING SEMESTER			
ACC 202 — Principles of Accounting II	3	0	3
OFC 160 — Office Machines	3	0	3
CS 175 — Introduction to Computer Sciences	3	0	3
COM 132 — Applied Composition and Speech	3	0	3
*Elective	3	0	3
			15

* Suggested Electives: OFC 162, OFC 172, OFC 174, OFC 231, BUS 234, ACC 702, ACC 713, PSY 105, PSY 131.

ACCOUNTING ASSOCIATE

This two-year program is designed for persons interested in pursuing careers as junior accountants in business, industry and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles as they relate to external reporting with selected electives in cost accounting and tax accounting. Successful completion of the program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ACC 201 — Principles of Accounting I	3	0	3
BUS 105 — Introduction to Business	3	0	3
OFC 160 — Office Machines	3	0	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 130 — Business Mathematics or MTH 111 — Mathematics for Business and Economics I	3	0	3
	15	15	15
SPRING SEMESTER I			
ACC 202 — Principles of Accounting II	3	0	3
MGT 136 — Principles of Management	3	0	3
CS 175 — Introduction to Computer Sciences	3	0	3
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
†OFC 172 — Beginning Typing or ACC 713 — Work Experience	2	3	3
	14	3	15
FALL SEMESTER II			
ACC 203 — Intermediate Accounting	3	0	3
ACC 238 — Cost Accounting or ACC 239 — Income Tax Accounting	3	0	3
GVT 201 — American Government	3	0	3
ECO 201 — Principles of Economics I	3	0	3
*Elective or ACC 803 — Work Experience	3	0	3
	15	0	15
SPRING SEMESTER II			
ACC 204 — Managerial Accounting	3	0	3
BUS 234 — Business law	3	0	3
OFC 231 — Business Communications	3	0	3
ECO 202 — Principles of Economics II	3	0	3
*Elective or ACC 813 — Work Experience	3	0	3
	15	0	15

*Suggested Electives: BUS 143, ACC 205, MGT 206, ACC 238, ACC 239, PSY 105, PSY 131

†Must have typing skills of 30 words per minute to be waived.

AIR CONDITIONING AND REFRIGERATION

(Certificate Program)

This program will qualify the student to install, repair, and maintain equipment in the fields of domestic refrigeration, commercial refrigeration, and air conditioning, cooling or heating systems.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
ACR 111 — Principles of Refrigeration	2	2	3
ACR 113 — Fundamentals of Electricity	2	3	3
ACR 115 — Unit Air Conditioning Systems	2	3	3
ACR 117 — Domestic Refrigeration	2	2	3
MTH 195 — Technical Mathematics	3	0	3
	11	10	15
SPRING SEMESTER			
ACR 112 — Properties of Air	2	2	3
ACR 114 — Heat Load Analysis	2	2	3
ACR 116 — Summer Air Conditioning Systems	2	3	3
ACR 118 — Winter Air Conditioning Systems	2	3	3
	8	10	12
FALL SEMESTER			
ACR 221 — Refrigeration Loads	2	2	3
ACR 223 — Medium Temperature Refrigeration Systems	2	3	3
ACR 227 — Low Temperature Refrigeration Systems	2	2	3
ACR 229 — Refrigeration Equipment Selection	2	2	3
ACR 803 — Cooperative Work Experience	1	15	3
	9	25	15

AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

(2-Year Program)

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. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ACR 111 — Principles of Refrigeration	2	2	3
ACR 113 — Fundamentals of Electricity	2	3	3
ACR 115 — Unit Air Conditioning Systems	2	3	3
ACR 117 — Domestic Refrigeration	2	2	3
COM 131 — Applied Composition and Speech or			
ENG 101 — Composition and Expository Reading	3	0	3
DFT 182 — Technician Drafting	1	3	2
	12	13	17
SPRING SEMESTER I			
ACR 112 — Properties of Air	2	2	3
ACR 114 — Heat Load Analysis	2	2	3
ACR 116 — Summer Air Conditioning Systems	2	3	3
ACR 118 — Winter Air Conditioning Systems	2	3	3
MTH 195 — Technical Mathematics	3	0	3
HST 101 — History of the United States or			
PSY 131 — Human Relations	3	0	3
	14	10	18
FALL SEMESTER II			
ACR 221 — Refrigeration Loads	2	2	3
ACR 223 — Medium Temperature Refrigeration Systems	2	3	3
ACR 227 — Low Temperature Refrigeration Systems	2	3	3
ACR 229 — Refrigeration Equipment Selection	2	2	3
COM 132 — Applied Composition and Speech or			
ENG 102 — Composition and Literature	3	0	3
ACC 131 — Bookkeeping I	3	0	3
	14	10	18
SPRING SEMESTER II			
ACR 202 — Advanced Systems	2	3	3
ACR 224 — System Testing and Balancing	2	2	3
ACR 228 — Air Conditioning System Equipment Selection	2	3	3
ACR 230 — Energy Conservation	2	2	3
ACR 803 — Cooperative Work Experience	1	15	3
	9	25	15

AUTO BODY TECHNOLOGY

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.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
AB 101 — Basic Metal Principles	2	4	3
AB 102 — Basic Paint Principles	2	4	3
AB 103 — Practical Application of Basic Metal and Paint Principles	2	5	4
WE 101 — Basic Welding and Cutting Practices	1	5	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
	10	18	16
SPRING SEMESTER I			
AB 104 — Minor Metal Repair	2	4	3
AB 105 — Minor Paint Repair	2	4	3
AB 106 — Practical Application of Minor Metal and Paint Repair	2	5	4
MTH 195 — Technical Mathematics	3	0	3
PSY 131 — Human Relations	3	0	3
	12	13	16
FALL SEMESTER II			
AB 241 — Major Paint Repair	2	4	3
AB 242 — Major Panel Replacement	2	4	3
AB 243 — Advanced Application of Auto Body Repair Methods	2	5	4
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
PHY 131 — Applied Physics	3	3	4
	12	16	17
SPRING SEMESTER II			
AB 244 — Major Collision and Frame Repair	2	4	3
AB 235 — Estimating	3	0	3
AB 139 — Automobile Service Business Operations	3	0	3
AB 813 — Cooperative Work Experience or *Approved Elective			3
			12

*Suggested electives: MTH 115, ACC 131, ACC 132, GVT 201, HST 102, ENG 102, SPE 105.

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.

AUTO BODY TECHNOLOGY

(Certificate Program)

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

	LEC. HRS.	LAB. HRS.	CR. HRS.
AB 101 — Basic Metal Principles	2	4	3
AB 102 — Basic Paint Principles	2	4	3
AB 103 — Practical Application of Basic Metal and Paint Principles	2	5	4
AB 104 — Minor Metal Repair	2	4	3
AB 105 — Minor Paint Repair	2	4	3
AB 106 — Practical Application of Minor Metal and Paint Repair	2	5	4
AB 241 — Major Paint Repair	2	4	3
AB 242 — Major Panel Replacement	2	4	3
AB 243 — Advanced Application of Auto Body Repair Methods	2	5	4
AB 244 — Major Collision & Frame Repair	3	0	3
AB 235 — Estimating	3	0	3
WE 101 — Basic Welding and Cutting	1	5	3
AB 813 — Cooperative Work Experience or *approved elective			3
			42

* Suggested electives: MTH 115, ACC 131, ACC 132, GVT 201, GVT 202, HST 103, ENG 102, SPE 105.

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.

AUTOMOTIVE TECHNOLOGY

This curriculum prepares the student for employment in the automotive industry as an automotive technician. The program of study emphasizes both the theory and practical skills of mechanics. The Associate in Applied Arts and Sciences Degree is awarded upon successful completion of the program.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
AT 101 — Auto Shop Practice	2	4	3
AT 102 — Engine and Ignition System Operation	2	4	3
AT 103 — Fuel and Emission Control Systems	2	5	4
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
WE 101 — Basic Welding and Cutting Practices	1	5	3
			16
SPRING SEMESTER I			
AT 104 — Auto Electrical Systems	2	4	3
AT 105 — Auto Engines I	2	4	3
AT 106 — Auto Engines II	2	5	4
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
MTH 195 — Technical Mathematics	3	0	3
			16
FALL SEMESTER II			
AT 290 — Auto Power Train	2	4	3
AT 291 — Automatic Transmissions I	2	4	3
AT 292 — Automatic Transmissions II	2	5	4
PHY 131 — Applied Physics	3	3	4
*Approved Elective			3
			17
SPRING SEMESTER II			
AT 293 — Auto Suspension	2	4	3
AT 294 — Auto Brakes	2	5	4
AT 295 — Auto Air Conditioning	2	4	3
AT 813 — Cooperative Work Experience or *Approved Elective			3
			13

* Suggested electives: Psy 131, MTH 115, ACC 131, ACC 132, GVT 201, GVT 202, HST 102, ENG 102, SPE 105, AT 803, EGR 186, ET 190, AB 139.

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.

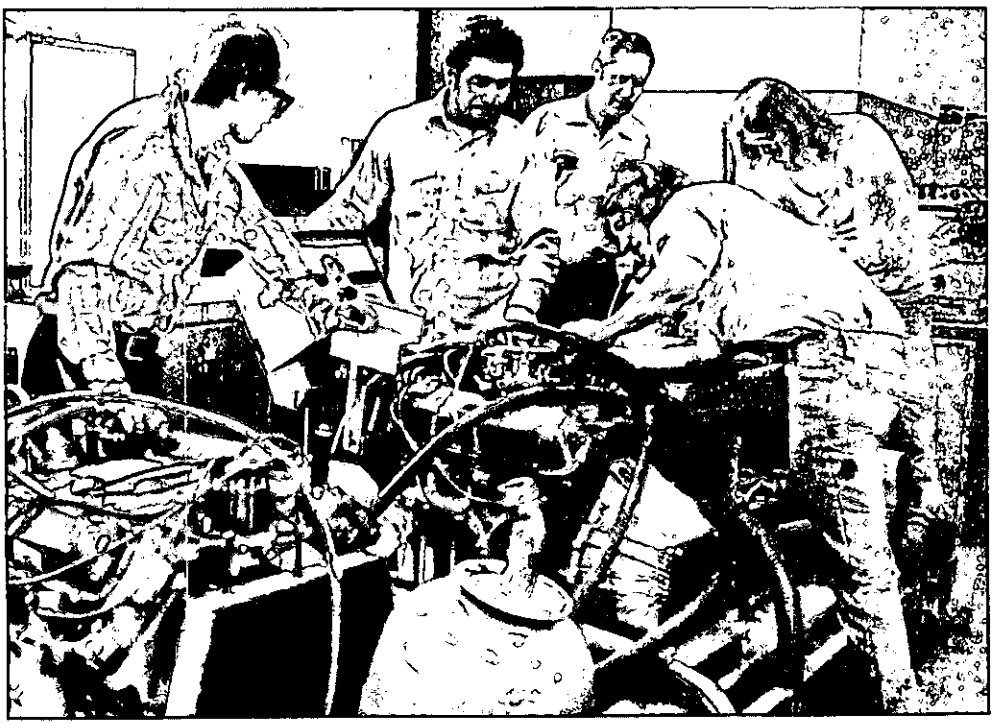
AUTOMOTIVE TECHNOLOGY

(Certificate Program)

The purpose of this program is to train students for entry-level politions as atuomotive mechanics. A certificate is issued upon successful completion of the program.

	LEC. HRS.	LAB. HRS.	CR. HRS.
AT 102 — Engine and Ignition System Operation	2	4	3
AT 103 — Fuel and Emission Control System	2	5	4
AT 290 — Auto Power Train	2	4	3
AT 291 — Automatic Transmissions I	2	4	3
AT 292 — Automatic Transmissions II	2	5	4
AT 105 — Auto Engines I	2	4	3
AT 106 — Auto Engines II	2	5	4
AT 293 — Auto Suspension	2	4	3
AT 294 — Auto Brakes	2	5	4
AT 104 — Auto Electrical Systems	2	4	3
AT 295 — Auto Air Conditioning	2	4	3
AT 101 — Auto Shop Practice	2	4	3
AT 813 — Cooperative Work Experience or *Approved Elective	1	15	3
	25	67	43

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.



CHILD DEVELOPMENT ASSISTANT

(Certificate Program)

An introduction to the various areas of child care work, including the history, philosophy and practices of specialized care, with emphasis on the educational, recreational and health needs of the child.

BASIC OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
CD 135 — Survey of Child Service Programs	3	2	4
CD 140 — Child Growth and Behavior, Prenatal-3	3	0	3
COM 131 — Applied Composition and Speech or ENG 101 —Composition and Expository Reading	3	0	3
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
*Elective	3	0	3
	15	2	16
SPRING SEMESTER			
CD 137 — Learning Programs for Young Children	3	2	4
CD 141 — Child Growth and Behavior, 4-9	3	0	3
CD 150 — Nutrition, Health and Safety of the Young Child	2	2	3
SS 132 — American Civilization or HST 102 — History of the United States	3	0	3
HD 107 — Developing Leadership Behavior or *Elective	3	0	3
	14	4	16

*Electives to be selected from the following: CD 139, CD 201, CD 236, CD 238, CD 250, CD 251, CD 253, TPD 141.

CDA TRAINING OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
CD 135 — Survey of Child Service Programs	3	2	4
CD 140 — Child Growth and Behavior, Prenatal-3	3	0	3
CD 150 — Nutrition, Health and Safety of the Young Child	2	2	3
CD 239 — Studies in Child Guidance	2	2	3
HD 106 — Personal and Social Growth or HD 107 — Developing Leadership Behavior	3	0	3
*Elective	3	0	3
	16	6	19
SPRING SEMESTER			
CD 137 — Learning Programs for Young Children	3	2	4
CD 141 — Child Growth and Behavior, 4-9	3	0	3
CD 240 — Internship or CD 812 — Work Experience	1	10	2
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
*Electives	6	0	6
	16	12	18

*Electives to be selected from: CD 139, CD 201, CD 236, CD 238, CD 250, CD 251, CD 253, TPD 141

SPECIAL CHILD OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
CD 140 — Child Growth and Behavior, Prenatal-3	3	0	3
CD 150 — Nutrition, Health and Safety of the Young Child	2	2	3
CD 236 — Childhood Problems	3	0	3
CD 239 — Studies in Child Guidance	2	2	3
HD 106 — Personal and Social Growth or HD 107 — Developing Leadership Behavior	3	0	3
	13	4	15
SPRING SEMESTER			
CD 141 — Child Growth and Behavior, 4-9	3	0	3
CD 250 — Supportive Services for Exceptional Children	3	0	3
CD 251 — Learning Programs for Children with Special Needs	2	5	4
CD 240 — Internship or CD 812 — Work Experience	1	10	2
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
*Elective	3	0	3
	15	15	18

* Electives to be selected from: CD 139, CD 201, CD 253, TPD 141.

CHILD DEVELOPMENT ASSOCIATE

The program will provide an opportunity for the student to study in depth the whole development of the child. The certificate program will be extended to a special chosen area of interest. Internship will complete the preparation in child development.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
CD 135 — Survey of Child Service Programs	3	2	4
CD 140 — Child Growth and Behavior	3	0	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
*Elective	3	0	3
	15	2	16
SPRING SEMESTER I			
CD 137 — Learning Programs for Young Children	3	2	4
CD 141 — Child Growth and Behavior, 4-9	3	0	3
CD 150 — Nutrition, Health and Safety of the Young Child	2	2	3
SS 132 — American Civilization or HST 102 — History of the United States	3	0	3
HD 107 — Developing Leadership Behavior or *Elective	3	0	3
	14	4	16
FALL SEMESTER II			
CD 233 — A Survey of Model Programs	2	5	4
CD 239 — Studies in Child Guidance	2	2	3
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
HD 106 — Personal and Social Growth or PSY 105 — Introduction to Psychology	3	0	3
SOC 101 — Introduction to Sociology or *Elective	3	0	3
	13	7	16
SPRING SEMESTER II			
CD 235 — Application of Learning Theories	3	5	5
CD 240 — Internship or CD 812 — Work Experience	1	10	2
SOC 203 — Marriage and the Family	3	0	3
HUM 101 — Introduction to the Humanities	3	0	3
*Elective	3	0	3
	13	15	16

* Elective to be selected from the following: CD 139, CD 201, CD 236, CD 238, CD 251, CD 242, CD 250, CD 253, CD 813, TPD 141. Students interested in credentialing should consult Child Development staff prior to registration.

DIGITAL ELECTRONICS TECHNOLOGY

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. Successful completion of this curriculum leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
*MTH 195 — Technical Mathematics	3	0	3
†DFT 182 — Technician Drafting	1	3	2
ET 190 — D.C. Circuits and Electrical Measurements	3	3	4
‡Technical Elective			4
			16
SPRING SEMESTER I			
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
*MTH 196 — Technical Mathematics	3	0	3
ET 191 — A.C. Circuits	3	3	4
ET 192 — Digital Computer Principles	2	2	3
ET 193 — Active Devices	3	3	4
			17
FALL SEMESTER II			
ET 260 — Sinusoidal Circuits	3	3	4
ET 261 — Pulse and Switching Circuits	3	3	4
ET 263 — Digital Computer Theory	3	3	4
‡Technical Elective			4
			16
SPRING SEMESTER II			
ET 264 — Digital Systems	3	3	4
ET 265 — Digital Research	1	5	3
ET 266 — Computer Applications	3	3	4
ET 267 — Microprocessors	3	3	4
			15

*MTH 101 and MTH 104 may be substituted for MTH 195. MTH 102, MTH 105, MTH 121, MTH 126, MTH 227, MTH 228, may be substituted for either MTH 195 or MTH 196.
†DFT 184, DFT 231 or EGR 105 may be substituted.
‡Technical electives: CHM 101, CS 175, EGR 101, EGR 108, EGR 186, EGR 204, ET 194, ET 238, ET 268, ET 704, ET 713, ET 802, MTH 207, MTH 209, PHY 111, PHY 131.

DRAFTING AND DESIGN TECHNOLOGY

This program prepares the student for employment in a wide range of industries as a draftsman or engineering aide. Information in related fields is provided to enable the student to work effectively with the engineer and professional staff. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DFT 183 — Basic Drafting	2	6	4
EGR 186 — Manufacturing Processes	1	2	2
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 195 — Technical Mathematics or MTH 101 — College Algebra	3	0	3
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
	12	8	15
SPRING SEMESTER I			
*Drafting Concentration	2	4-6	3-4
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
MTH 196 — Technical Mathematics or MTH 102 — Plane Trigonometry	3	0	3
SS 132 — American Civilization or HST 102 — History of the United States	3	0	3
PHY 131 — Applied Physics	3	3	4
	14	7-9	16-17
FALL SEMESTER II			
DFT 135 — Reproduction Processes	1	3	2
*Drafting Concentration	2	4-6	3-4
*Drafting Concentration	2	4-6	3-4
EGR 106 — Descriptive Geometry	2	4	3
*Technical Elective	3	0	3
	10	15-19	14-16
SPRING SEMESTER II			
PSY 131 — Human Relations	3	0	3
*Drafting Concentration	2	4-6	3-4
†Technical Elective	3	0	3
†Technical Elective	4	0	4
DFT or Art Elective	2	4	3
	14	8-10	16-17

* To be selected from DFT 136, DFT 184, DFT 185, DFT 230, DFT 231, DFT 232, DFT 234, DFT 235, DFT 236, DFT 250, DFT 251.

†Technical electives may be selected from applied science or engineering technologies. Student may elect to enroll in Cooperative Work Experience courses on approval by instructor.

DRAFTING AND DESIGN TECHNOLOGY

(Co-op Training Program)

This program prepares the student from employment as a draftsman by supplementing classroom training with on-the-job experience. Students enrolled in this program work as draftsmen a minimum of 20 hours per week while they are enrolled in cooperative work experience. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
EGR 186 — Manufacturing Processes	1	2	2
DFT 183 — Basic Drafting	2	6	4
COM 131 — Applied Composition and Speech	3	0	3
MTH 195 — Technical Mathematics	3	0	3
	9	8	12
SPRING SEMESTER I			
DFT 704 — Work Experience	1	20	4
‡DFT 135 — Reproduction Processes	1	3	2
	2	23	6
SUMMER SEMESTER I			
MTH 196 — Technical Mathematics	3	0	3
COM 132 — Applied Composition and Speech	3	0	3
	6	0	6
FALL SEMESTER II			
*Drafting Concentration	2	4	3
PHY 131 — Applied Physics	3	3	4
SS 131 — American Civilization	3	0	3
EGR 106 Descriptive Geometry	2	4	3
	10	11	13
SPRING SEMESTER II			
DFT 804 — Work Experience	1	20	4
*Drafting Concentration	2	4	3
	3	24	7
SUMMER SEMESTER II			
SS 132 — American Civilization	3	0	3
	3	0	3
FALL SEMESTER III			
†Technical Elective	4	0	4
*Drafting Concentration	2	4	3
Elective	3	3	4
DFT 814 — Work Experience	1	20	4
	10	27	15

*To be selected from DFT 136, DFT 184, DFT 185, DFT 230, DFT 231, DFT 232, DFT 234, DFT 235, DFT 236, DFT 250, DFT 251.
†Technical Electives may be selected from applied science or engineering technologies.
‡GA 134 or GA 136 may be substituted for DFT 135.

DRAFTING AND DESIGN TECHNOLOGY
ELECTRONIC DESIGN OPTION

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DFT 183 — Basic Drafting	2	6	4
EGR 186 — Manufacturing Processes	1	2	2
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 195 — Technical Mathematics or MTH 101 — College Algebra	3	0	3
ET 190 — D.C. Circuits	3	3	4
	12	11	16
SPRING SEMESTER I			
DFT 231 — Electronic Drafting	2	4	3
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
MTH 196 — Technical Mathematics or MTH 102 — Plane Trigonometry	3	0	3
DFT 240 — Printed Circuit Design	2	4	3
GA 134 — Basic Camera Operations	2	4	3
	12	12	15
FALL SEMESTER II			
EGR 101 — Engineering Analysis	2	0	2
DFT 241 — Integrated Circuit Design	2	4	3
ET 250 — Principles of Electronic Integrated Circuits	3	2	4
EGR 106 — Descriptive Geometry	2	4	3
DFT 243 — Advanced Printed Circuit Design	2	4	3
	11	14	15
SPRING SEMESTER II			
PSY 131 — Human Relations	3	0	3
DFT 242 — Advanced Integrated Circuit Design	2	4	3
†Technical Elective	3	0	3
DFT 232 — Technical Illustration	2	4	3
*Elective			3
			15

*Suggested electives: ET 192, other drafting, engineering or graphic arts courses.
†Technical Electives may be selected from applied science or engineering technologies.

DRAFTING AND DESIGN TECHNOLOGY
ELECTRONIC DESIGN OPTION

(Co-op training Program)

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
EGR 186 — Manufacturing Processes	1	2	2
DFT 183 — Basic Drafting	2	6	4
EGR 106 — Descriptive Geometry	2	4	3
COM 131 — Applied Composition and Speech or	3	0	3
MTH 195 — Technical Mathematics	3	0	3
	11	12	15
SPRING SEMESTER I			
DFT 704 — Work Experience	0	20	4
DFT 231 — Electronic Drafting	2	4	3
	2	24	7
SUMMER SEMESTER I			
DFT 240 — Printed Circuit Design	2	4	3
MTH 196 — Technical Mathematics	3	0	3
	5	4	6
FALL SEMESTER II			
DFT 243 — Advanced Printed Circuit Design	2	4	3
COM 132 — Applied Composition and Speech or	3	0	3
†Technical Elective	3	0	3
ET 190 — D.C. Circuits and Electrical Measurements	3	3	4
	11	7	13
SPRING SEMESTER II			
DFT 804 — Work Experience	0	20	4
DFT 241 — Integrated Circuit Design	2	4	3
ET 250 — Principles of Electronic Integrated Circuits	3	2	4
	5	26	11
SUMMER SEMESTER II			
GA 134 — Basic Camera Operations	2	4	3
EGR 101 — Engineering Analysis	2	0	2
	4	4	5
FALL SEMESTER III			
DFT 242 — Advanced Integrated Circuit Design	2	4	3
*Elective			3
			6

*Suggested electives: ET 192, other drafting, engineering or graphic arts courses.
†Technical Electives may be selected from applied science or engineering technologies.

GRAPHIC ARTS

(Certificate Program)

A one-year program providing the student with skill development opportunities in the field of Graphic Arts. Successful completion of this one-year program would prepare a person for employment in a commercial printing firm or in a printing division of a large company.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
GA 131 — Graphic Processes	2	4	3
GA 140 — Offset Printing I	2	4	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 139 — Applied Mathematics	3	0	3
OFC 172 — Beginning Typing	2	3	3
	12	11	15
SPRING SEMESTER			
GA 134 — Basic Camera Operations	2	4	3
GA 136 — Copy Preparation	2	4	3
COM 132 — Applied Composition and Speech or SPE 105 — Fundamentals of Public Speaking	3	0	3
*PSY 131 — Human Relations	3	0	3
*Elective — DFT 232 or PHO 110	2	4	3
	12	12	15

*GA 714 may be taken with the consent of the instructor.



GRAPHIC COMMUNICATIONS

This program provides skill development and understanding of graphic processes needed for employment in a commercial printing firm or in a printing division of a large company. It also prepares the student with production and management concepts and techniques useful for professional growth in the business of graphic communications. Successful completion of this curriculum leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
GA 131 — Graphic Processes	2	4	3
GA 140 — Offset Printing I	2	4	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 139 — Applied Mathematics	3	0	3
OFC 172 — Beginning Typing	2	3	3
			15
SPRING SEMESTER			
GA 134 — Basic Camera Operations	2	4	3
GA 136 — Copy Preparation	2	4	3
COM 132 — Applied Composition and Speech or SPE 105 — Fundamentals of Public Speaking	3	0	3
*PSY 131 — Human Relations	3	0	3
*Elective — DFT 232 or PHO 110	2	4	3
			15
FALL SEMESTER			
GA 201 — Production Techniques	2	4	3
ECO 201 — Principles of Economics I	3	0	3
BUS 105 — Introduction to Business	3	0	3
MTH 130 — Business Mathematics	3	0	3
JN 101 — Introduction to Mass Communications	3	0	3
			15
SPRING SEMESTER			
GA 202 — Production Management	2	4	3
GA 240 — Offset Printing II	2	4	3
ACC 131 — Bookkeeping I or ACC 201 — Principles of Accounting II	3	0	3
CS 175 — Introduction to Computer Sciences	3	0	3
†Elective			3
			15

*GA 714 may be taken with the consent of the instructor.

†Electives may be selected from the areas of Art, Drafting, Business or Communications with consent of instructor. GA 814 may be taken with the consent of the instructor.

MANAGEMENT CAREERS

This business management program offers serveral options of study designed to develop the fundamental skills knowledge attitudes and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Credit can be earned for on-the-job experience in the Mid-Management option. To enter the Mid-Management option students must make formal application and be interviewed by a member of the Mid-Management faculty before final acceptance will be granted. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

CORE COURSES (Required for all options)	LEC. HRS.	LAB. HRS.	CR. HRS.
BUS 105 — Introduction to Business	3	0	3
ACC 201 — Principles of Accounting I or	3	0	3
ACC 131 — Bookkeeping I and	(3)	0	(3)
ACC 132 — Bookkeeping II	(3)	0	(3)
ECO 201 — Principles of Economics I	3	0	3
ECO 202 — Principles of Economics II	3	0	3
CS 175 — Introduction to Computer Science	3	0	3
MGT 136 — Principles of Management	3	0	3
PSY 131 — Human Relations	3	0	3
HUM 101 — Introduction to the Humanities	3	0	3
			24-27

SUPPORT COURSES (Required for all options)			
COM 131 — Applied Composition and Speech*	3	0	3
COM 132 — Applied Composition and Speech*	3	0	3
Social Science elective or			
Humanities elective	3	0	3
MTH 111 — Math for Business & Economics I or			
MTH 112 — Math for Business & Economics II or	3	0	3
MTH 130 — Business Math			
			12

ADMINISTRATIVE MANAGEMENT OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
ACC 202 — Principles of Accounting II	3	0	3
MGT 206 — Principles of Marketing	3	0	3
BUS 234 — Business Law	3	0	3
MGT 242 — Personnel Administration	3	0	3
BUS 237 — Organizational Behavior	3	0	3
OFC 231 — Business Communications	3	0	3
Electives			9
			27

MID-MANAGEMENT OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 150 — Management Training	0	20	4
MGT 154 — Management Seminar: Role of Supervision	2	0	2
MGT 151 — Management Training	0	20	4
MGT 155 — Management Seminar: Personnel Management	2	0	2
MGT 250 — Management Training	0	20	4
MGT 254 — Management Seminar: Organizational Development	2	0	2
MGT 251 — Management Training	0	20	4
MGT 255 — Management Seminar: Business Strategy, the Decision Process & Problem Solving	2	0	2
Elective			3
			27

Suggested Electives: OFC 160, OFC 172, MGT 137, MGT 153, MGT 212, MGT 230, MGT 233.

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

PURCHASING MANAGEMENT OPTION	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 160 — Principles of Purchasing	3	0	3
MGT 220 — Materials Management	3	0	3
MGT 280 — Industrial Management	3	0	3
MGT 206 — Principles of Marketing	3	0	3
MGT 224 — Quality Assurance	3	0	3
BUS 234 — Business Law	3	0	3
Elective*	6	0	6
			24

* Elective must be chosen from: BUS 237 — Organizational Behavior, ACC 202 — Principles of Accounting II, MGT 230 — Salesmanship, MGT 233 — Advertising and Sales Promotion, OFC 231 — Business Communications, TRT 287 — Physical Distribution Management I, MTH 202 — Introductory Statistics.

SECRETARIAL CAREERS — ADMINISTRATIVE SECRETARY

(Certificate Program)

This program is designed for the person interested in being an assistant to the office administrator. Emphasis will be placed on developing the ability to make decisions and solve complex problems. Students who do not have the necessary skills to enter this program may precede the suggested curriculum by enrolling in OFC 172 (Beginning Typing) or OFC 174 (Intermediate Typing) and OFC 159 (Beginning Shorthand) or OFC 166 (Intermediate Shorthand). These preliminary courses will not count toward the credit hours required for the certificate.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
OFC 273 — Advanced Typing	1	2	2
OFC 266 — Advanced Shorthand	3	2	4
OFC 162 — Office Procedures	3	0	3
ACC 131 — Bookkeeping I or ACC 201 — Principles of Accounting I	3	0	3
MGT 136 — Principles of Management	3	0	3
	13	4	15
SPRING SEMESTER			
OFC 275 — Secretarial Procedures	3	0	3
OFC 231 — Business Communications	3	0	3
MTH 130 — Business Mathematics	3	0	3
OFC 165 — Introduction to Word Processing	3	0	3
SPE 105 — Public Speaking	3	0	3
*Elective	3	0	3
	18	0	18

* Suggested Electives: OFC 160, BUS 234, BUS 237.

SECRETARIAL CAREERS — GENERAL SECRETARY

(Certificate Program)

The purpose of this program is to prepare students with the basic skills necessary to enter the secretarial field. A certificate is issued upon completion of the program.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BUS 105 — Introduction to Business	3	0	3
OFC 160 — Office Machines	3	0	3
OFC 172 — Beginning Typing or OFC 174 — Intermediate Typing	2	3	3
OFC 159 — Beginning Shorthand or OFC 166 — Intermediate Shorthand	3	2	4
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 130 — Business Mathematics	3	0	3
	17	5	19
SPRING SEMESTER			
OFC 174 — Intermediate Typing or OFC 273 — Advanced Typing	1	2	2
OFC 166 — Intermediate Shorthand or OFC 266 — Advanced Shorthand	3	2	4
OFC 162 — Office Procedures	3	0	3
ACC 131 — Bookkeeping I or ACC 201 — Principles of Accounting I	3	0	3
OFC 165 — Introduction to Word Processing	3	0	3
OFC 231 — Business Communications	3	0	3
	16	4	18

SECRETARIAL CAREERS — OFFICE SKILLS AND SYSTEMS

(Certificate Program)

This program is designed to meet the needs of those students who desire to enter a business career in a minimum of time. Intensive training in the basic office skills and systems is provided — including office machines, communications systems and other related business subjects. A general orientation to business is given.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BUS 105 — Introduction to Business	3	0	3
ACC 131 — Bookkeeping I or	3	0	3
ACC 201 — Principles of Accounting I			
OFC 172 — Beginning Typing or	2	3	3
OFC 174 — Intermediate Typing			
COM 131 — Applied Composition and Speech or	3	0	3
ENG 101 — Composition and Expository Reading			
OFC 160 — Office Machines	3	0	3
	14	3	15
SPRING SEMESTER			
OFC 174 — Intermediate Typing or	1	2	2
OFC 273 — Advanced Typing			
OFC 162 — Office Procedures	3	0	3
OFC 165 — Introduction to Word Processing	3	0	3
COM 132 — Applied Composition and Speech or	3	0	3
ENG 102 — Composition and Literature			
OFC 231 — Business Communications	3	0	3
MTH 130 — Business Mathematics	3	0	3
	16	2	17

CREDIT GIVEN FOR CPS RATING

Credit toward an Associate Degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

ACC 131 — Bookkeeping I	3
OFC 159 — Beginning Shorthand	4
OFC 162 — Office Procedures	3
OFC 166 — Intermediate Shorthand	4
OFC 172 — Beginning Typing	3
OFC 174 — Intermediate Typing	2
OFC 231 — Business Communications	3
BUS 234 — Business Law	3
OFC 275 — Secretarial Procedures	3
PSY 131 — Human Relations	3
	31

In order to receive credit, the applicant must:

1. Request direct notification be given to the Registrar of the College by the Institute for Certifying Secretaries that the applicant has passed all sections of the exam.
2. Earn 12 hours credit for courses at Eastfield before the advanced standing credit is posted on the applicant's record.

SECRETARIAL CAREERS — PROFESSIONAL SECRETARY

The purpose of this program is to prepare students to become alert and responsive secretaries capable of performing the tasks required of them in the modern business office. Suggested electives are such that students may take courses which will allow specialties in secretarial areas such as law, selling, advertising and accounting.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
BUS 105 — Introduction to Business	3	0	3
MTH 130 — Business Mathematics	3	0	3
OFC 172 — Beginning Typing or OFC 174 — Intermediate Typing	2	3	3
OFC 159 — Beginning Shorthand or OFC 166 — Intermediate Shorthand	3	2	4
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
	14	5	16
SPRING SEMESTER I			
OFC 174 — Intermediate Typing or OFC 273 — Advanced Typing	1	2	2
OFC 166 — Intermediate Shorthand or OFC 266 — Advanced Shorthand	3	2	4
OFC 162 — Office Procedures	3	0	3
ACC 131 — Bookkeeping I or ACC 201 — Principles of Accounting I	3	0	3
OFC 160 — Office Machines	3	0	3
	13	4	15
FALL SEMESTER II			
*OFC 266 — Advanced Shorthand	3	2	4
*OFC 273 — Advanced Typing	1	2	2
OFC 165 — Introduction to Word Processing	3	0	3
CS 175 — Introduction to Computer Sciences	3	0	3
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
Humanities: To be selected from ART 104, MUS 104, THE 104, HUM 101	3	0	3
	16	4	18
SPRING SEMESTER II			
OFC 265 — Word Processing Practices & Procedures	3	0	3
OFC 275 — Secretarial Procedures	3	0	3
OFC 231 — Business Communications	3	0	3
PSY 131 — Human Relations	3	0	3
†Elective or Work Experience	3	0	3
	15	0	15

* Student must achieve competency as required in Advanced Shorthand and Advance Typing. If student has qualified for advanced placement in shorthand and/or typing the elective hours are available to fulfill degree plan.

† Suggested Electives: MGT 136, BUS 143, BUS 234, OFC 167, OFC 143, OFC 274, OFC 803, OFC 804, OFC 813, OFC 814, PSY 105, SPE 105, BUS 237, DP 129. DP 129 offered at El Centro only, OFC 167 offered at Cedar Valley, El Centro and North Lake Colleges, OFC 274 offered at Cedar Valley and North Lake Colleges.

SOCIAL WORK ASSOCIATE

This program will develop competencies for students to enter employment in paraprofessional positions as social work associates in various social service agencies. The program combines human services courses and other courses with special emphasis given to actual social service agency involvement and work.

CERTIFICATE PROGRAM	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
HS 131 — Orientation to Human Services	3	0	3
*COM 131 — Applied Composition and Speech	3	0	3
†PSY 131 — Human Relations	3	0	3
SOC 101 — Introduction to Sociology	3	0	3
HD 107 — Developing Leadership Behavior	3	0	3
	15	0	15
SPRING SEMESTER			
HS 233 — Counseling for the Paraprofessional	3	0	3
HS 235 — Introduction to Mental Health	3	0	3
HS 703 — Work Experience	1	15	3
HS 244 — Social Work Problems and Practices	3	0	3
SOC 206 — Introduction to Social Work	3	0	3
	13	15	15

*English 101 may be substituted with the approval of the program coordinator.
†Psychology 105 may be substituted with the approval of the program coordinator.

TWO-YEAR PROGRAM	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ENG 101 — Composition and Expository Reading	3	0	3
PSY 105 — Introduction to Psychology	3	0	3
SOC 101 — Introduction to Sociology	3	0	3
HS 131 — Orientation to Human Services	3	0	3
*Elective	3	0	3
	15	0	15
SPRING SEMESTER			
ENG 102 — Composition and Literature	3	0	3
PSY 201 — Developmental Psychology	3	0	3
SOC 102 — Social Problems	3	0	3
SOC 206 — Introduction to Social Work	3	0	3
*Elective	3	0	3
	15	0	15
FALL SEMESTER II			
SOC 203 — Marriage and Family	3	0	3
PSY 205 — Psychology of Personality	3	0	3
HS 233 — Counseling for the Paraprofessional	3	0	3
HS 803 — Work Experience	1	15	3
HS 244 — Social Work Problems and Practices	3	0	3
	13	15	15

SPRING SEMESTER II

SOC 204 — American Minorities	3	0	3
HS 235 — Introduction to Mental Health	3	0	3
HS 813 — Work Experience	1	15	3
HS 245 — Social Work Problems and Practices	3	0	3
*Elective	3	0	3
	13	15	15

*Suggested Electives: BIO 116, HUM 101, PEH 101, PEH 108, PEH 110, PEH 257, RD 101, SPA 101, PSY 207, SOC 205, SOC 231, CD 140, GVT 201, GVT 202, HST 101, HST 102, ANT 101.
HS 703, HS 704, HS 713, HS 714, HS 802, HS 804, HS 812, HS 814 may be taken with consent of instructor.



TRAINING PARAPROFESSIONALS FOR THE DEAF

(Certificate Program)

This one-year program will offer training for working with the deaf in a range of occupational settings, with primary emphasis on those students in vocational training, educational environments and community agencies.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
TPD 140 — Introduction to Deafness	3	1	3
TPD 141 — Beginning Sign Language	3	2	4
TPD 142 — Communication Theory	3	0	3
TPD 147 — Language Development of the Deaf	3	0	3
TPD 148 — Receptive Fingerspelling	0	2	1
ENG 101 — Composition and Expository Reading	3	0	3
	15	5	17
SPRING SEMESTER			
TPD 143 — Intermediate Sign Language	3	2	4
TPD 146 — The Deaf Adult	2	0	2
TPD 248 — Rehabilitation of the Multiply Handicapped Deaf	3	1	3
TPD 247 — Special Problems in Deafness or *Specified Elective	3	0	3
ENG 102 — Composition and Literature	3	0	3
	14	3	15

* Specified Electives: HD 105, HD 106, PSY 201, PSY 105.
NOTE: Course electives should be carefully chosen with faculty advisement.

TRAINING PARAPROFESSIONALS FOR THE DEAF

This program is designed to train individuals at a paraprofessional level to work with the deaf. The curriculum pattern is planned for a two-year associate degree program. Course work will provide skills to work as an interpreter for the deaf, educational assistant, media specialist, aide with the multiply-handicapped, or house parent in residential schools.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
TPD 140 — Introduction to Deafness	3	1	3
TPD 141 — Beginning Sign Language	3	2	4
TPD 142 — Communication Theory	3	0	3
TPD 147 — Language Development of the Deaf	3	0	3
TPD 148 — Fingerspelling	0	2	1
ENG 101 — Composition and Expository Reading	3	0	3
	15	6	17
SPRING SEMESTER I			
TPD 143 — Intermediate Sign Language	3	2	4
TPD 145 — Classroom Management or *Specified Elective	2	2	3
TPD 146 — The Deaf Adult	2	0	2
TPD 242 — Media for the Deaf or	2-3	0-2	3
†TPD 247 — Special Problems in Deafness			
ENG 102 — Composition and Literature	3	0	3
	12-13	4-6	15
FALL SEMESTER II			
TPD 240 — Advanced Sign Language	3	2	4
TPD 250 — Reverse Interpreting	3	0	3
†TPD 247 — Special Problems in Deafness or *Specified Elective	3	0	3
TPD 802 — Cooperative Work Experience	1	10	2
Elective	3	0	3
	13	12	15
SPRING SEMESTER II			
TPD 251 — Education/Specialized Signs	3	2	4
TPD 248 — Rehabilitation of the Multiple Handicapped Deaf	3	1	3
TPD 230 — Ethics and Specifics of Interpreting	3	2	4
†TPD 247 — Special Problems in Deafness or *Specified Elective	3	0	3
TPD 241 — Audiometry	3	2	4
TPD 803 — Cooperative Work Experience	1	15	3
	16	22	21

*Specified Electives: HD 105, HD 106, PSY 105, PSY 201.
†TPD 247 may be repeated for credit as topics vary.
Note: Course electives should be carefully chosen with faculty advisement each semester.

TRANSPORTATION TECHNOLOGY

The objectives of the Transportation Technology Program are to prepare trained entry-level manpower for the transportation industry of North Texas with the ability to advance into management positions such as traffic managers, terminal managers, safety specialists, ICC practitioners and other related areas.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
BUS 105 — Introduction to Business	3	0	3
TRT 144 — Introduction to Transportation	3	0	3
TRT 146 — Transportation and Traffic Management	3	0	3
COM 131 — Applied Composition and Speech or ENG 101 — Composition and Expository Reading	3	0	3
MTH 130 — Business Mathematics or MTH 111 — Mathematics for Business and Economics I	3	0	3
	15	0	15
SPRING SEMESTER I			
MGT 136 — Principles of Management	3	0	3
TRT 145 — Introduction to Rates and Tariffs	3	0	3
TRT 147 — Economics of Transportation	3	0	3
COM 132 — Applied Composition and Speech or ENG 102 — Composition and Literature	3	0	3
*Elective or TRT 713 — Work Experience	3	0	3
	15	0	15
FALL SEMESTER II			
ACC 201 — Principles of Accounting I or ACC 131 — Bookkeeping I	3	0	3
TRT 240 — Interstate Commerce Law I	3	0	3
TRT 249 — Applied Rates and Tariffs	3	0	3
TRT 287 — Physical Distribution Management I	3	0	3
*Elective or TRT 803 — Work Experience	3	0	3
	15	0	15
SPRING SEMESTER II			
ACC 202 — Principles of Accounting II or ACC 132 — Bookkeeping II	3	0	3
TRT 241 — Interstate Commerce Law II	3	0	3
TRT 288 — Physical Distribution Management II	3	0	3
*Elective or TRT 813 — Work Experience	3	0	3
†Business Concentration Elective	3	0	3
	15	0	15

†Suggested Business Concentration Electives: TRT 250, OFC 160, OFC 172, ACC 205, MGT 206, BUS 234, BUS 237, CS 175, ECO 201, ECO 202. TRT 250 may be repeated with different emphasis for elective credit.

* May be selected from Business Concentration Electives or HST 101, HST 102, HD 107, SPE 105, GVT 201, GVT 202, MTH 112.

WELDING TECHNICIAN

(Certificate Program)

The Welding Technician Program is designed so that the student can develop the necessary manual skills and technical knowledge required to enter the welding profession. Emphasis is placed on oxyfuel and arc welding plus many other specialized welding applications.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
WE 102 — Oxyfuel Welding and Cutting	1	5	3
WE 103 — Introduction to Shielded Metal Arc Welding — Plate	1	5	3
WE 104 — Introduction to Shielded Metal Arc Welding — Pipe	1	5	3
WE 201 — Gas Metal Arc Welding — Plate and Pipe	2	4	3
WE 202 — Gas Tungsten Arc Welding — Plate and Pipe	2	4	3
	7	23	15
SPRING SEMESTER			
WE 105 — Advanced Shielded Metal Arc Welding — Plate and Pipe	2	4	3
WE 130 — Pattern Layout	2	3	3
WE 203 — Advanced Gas Tungsten Arc Welding — Plate and Pipe	2	4	3
WE 204 — Advanced Gas Metal Arc Welding — Plate and Pipe	2	4	3
WE 150 — Basic Welding Metallurgy	3	0	3
WE 703 — Cooperative Work Experience or *Approved Elective	1	15	3
	12	30	18

* Electives to be chosen from the following courses or other courses approved by the division chairman include: ACC 131, ACC 132, GVT 201, MTH 111, PSC 118, DFT 183.

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.

WELDING TECHNOLOGY

(2-Year Program)

The Welding Technology Program is designed to give the student experience in the skills and technical areas as well as academic background to broaden his employability in the welding field. Emphasis is placed on oxyfuel and arc welding plus many other specialized welding applications.

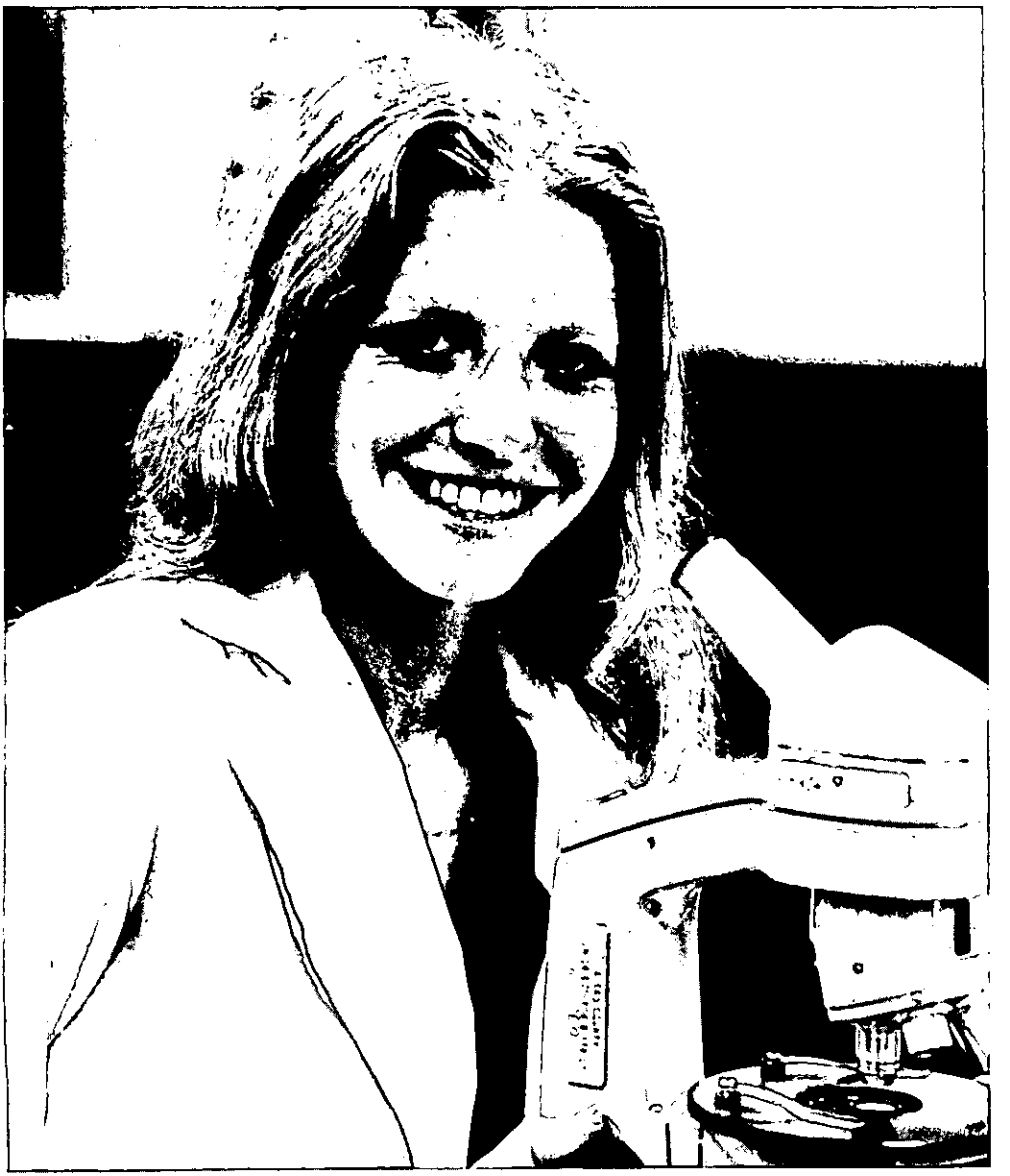
	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
WE 102 — Oxyfuel Welding and Cutting	1	5	3
WE 103 — Introduction to Shielded Metal Arc Welding — Pipe	1	5	3
WE 104 — Introduction to Shielded Metal Arc Welding — Pipe	1	5	3
MTH 195 — Technical Mathematics	3	0	3
DFT 182 — Technician Drafting	1	3	2
			14
SPRING SEMESTER I			
WE 105 — Advanced Shielded Metal Arc Welding — Plate and Pipe	2	4	3
WE 130 — Pattern Layout	2	3	3
COM 131 — Applied Composition and Speech	3	0	3
SS 131 — American Civilization or HST 101 — History of the United States	3	0	3
WE 703 — Cooperative Work Experience or *Approved Elective	1	15	3
			15
FALL SEMESTER II			
WE 201 — Gas Metal Arc Welding — Plate and Pipe	2	4	3
WE 202 — Gas Tungsten Arc Welding — Plate and Pipe	2	4	3
PHY 131 — Applied Physics	3	3	4
PSY 131 — Human Relations	3	0	3
*Elective			3
			16
SPRING SEMESTER II			
WE 203 — Advanced Gas Tungsten Arc Welding — Plate and Pipe	2	4	3
WE 204 — Advanced Gas Metal Arc Welding — Plate and Pipe	2	4	3
WE 150 — Basic Welding Metallurgy	3	0	3
EGR 186 — Manufacturing Processes	1	2	2
ET 235 — Fundamentals of Electricity	3	3	4
			15

* Electives to be chosen from the following courses or other courses approved by the division chairman include ACC 131, ACC 132, GVT 201, MTH 111, PSC 118, DFT 183.

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 first week of classes.

El Centro College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING ASSOCIATE

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ACC 201—Principles of Accounting I	3	0	3
BUS 105—Introduction to Business	3	0	3
OFC 160—Office Machines	3	0	3
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
MTH 130—Business Mathematics or MTH 111—Mathematics for Business and Economics I	3	0	3
SPRING SEMESTER I			
ACC 202—Principles of Accounting II	3	0	3
MGT 136—Principles of Management	3	0	3
CS 175—Introduction to Computer Science	3	0	3
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
OFC 172—Beginning Typing or	2	3	3
ACC 703, 713, 704 or 714—Work Experience	1	15-20	3-4
FALL SEMESTER II			
ACC 203—Intermediate Accounting	3	0	3
ACC 238—Cost Accounting or ACC 239—Income Tax Accounting	3	0	3
GVT 201—American Government	3	0	3
ECO 201—Principles of Economics I	3	0	3
ACC 803 or ACC 804—Work Experience or Elective	1	15-20	3-4
SPRING SEMESTER II			
*ACC 204—Managerial Accounting	3	0	3
BUS 234—Business Law	3	0	3
OFC 231—Business Communications	3	0	3
ECO 202—Principles of Economics II	3	0	3
ACC 813 or ACC 814—Work Experience or Elective	1	15-20	3-4
Total			60-62

Continued

* This course will be offered in the fall only.

Recommended Electives:
ACC 238—Cost Accounting
ACC 239—Income Tax Accounting
MGT 206—Principles of Marketing
PSY 105—Introduction to Psychology
ACC 205—Business Finance
ACC 207—Intermediate Accounting II
ACC 703—Cooperative Work Experience
ACC 704—Cooperative Work Experience
ACC 714—Cooperative Work Experience
ACC 803—Cooperative Work Experience
ACC 804—Cooperative Work Experience
ACC 813—Cooperative Work Experience
ACC 814—Cooperative Work Experience

GENERAL INFORMATION AND OBJECTIVES
This program provides the student with a basic background for the many varied jobs in accounting. Graduates of this program should be able to keep a small set of books, assist in developing a set of books, make accounting entries in the accounting department of larger companies, and perform other duties required of junior accountants.

ADMISSION TO THE PROGRAM
Fulfill all requirements for admission to El Centro College.



ACCOUNTING TECHNICIAN
(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
BUS 105—Introduction to Business	3	0	3
ACC 131—Bookkeeping I	3	0	3
OFC 160—Office Machines	3	0	3
MTH 130—Business Mathematics	3	0	3
SPRING SEMESTER			
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
ACC 132—Bookkeeping II	3	0	3
*OFC 172—Beginning Typing or	2	3	3
OFC 174—Intermediate Typing	1	2	2
CS 175—Introduction to Computer Science	3	0	3
Elective			3
Total			29-30

* Students may be placed in OFC 174 based on proficiency level determined by previous training, experience, and/or placement tests.

GENERAL INFORMATION AND OBJECTIVES

This program provides the students with a basic background for completing the accounting cycle which is the basic work of an accountant's assistant. The training a student receives is in the form of journalizing, posting, making a work sheet, preparing financial statements, adjusting and closing the books, and taking an after closing trial balance. This program is available for both day and evening students.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

ALLIED HEALTH TECHNOLOGY

GENERAL INFORMATION

GENERAL STUDIES

All students must successfully complete a number of general education courses to meet the requirements for admission into special program tracks and to be eligible for the Associate in Applied Arts and Sciences Degree.

CORE CURRICULUM	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
AHT 100—Introduction to Allied Health Technology	3	3	4
AHT 110—Introduction to the Health Care Delivery System	3	0	3
BIO 221—Anatomy and Physiology I	3	3	4
CHM 101—General Chemistry	3	3	4
MTH 101—College Algebra	3	0	3
SPRING SEMESTER I			
AHT 120—Interdisciplinary Concepts	3	0	3
AHT 130—Interdisciplinary Laboratory Skills	3	3	4
BIO 222—Anatomy and Physiology II	3	3	4
CHM 102—General Chemistry	3	3	4
CS 175—Introduction to Computer Science	3	0	3
Total			36

SPECIALIZED TRACK PROGRAMS

After the completion of the basic academic, special math and science requirements, and the core curriculum, the sophomore student will begin the specialized track of didactic and clinical study. There are three specific program tracks. Each specific track program will have class and clinical studies designed to meet the essentials for registration and certification as specified by each accrediting body.

Continued

HISTOTECHNOLOGY

The histologic technician is concerned with the preparation of sections of body tissue for examination by a pathologist. This includes the preparation of tissue specimens both of human and animal origin for diagnostic, research, or teaching purposes. Sections of body tissue are processed by a variety of methods which enable the pathologist to diagnose body dysfunction and malignancy.

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I and SPRING SEMESTER I			
Core Curriculum			36
SUMMER SESSION I			
BIO 216—General Microbiology	3	4	4
SUMMER SESSION II			
AHT 200—Introduction to Histotechnology	1	35	6
FALL SEMESTER II			
AHT 206—Histologic Techniques	4	0	4
AHT 210—Histotechnology Practicum I	0	16	6
ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER II			
AHT 218—Special Techniques	5	0	5
AHT 215—Records and Administration	1	2	1
AHT 216—Histotechnology Practicum II	0	16	6
PSY 105—Introduction to Psychology	3	0	3
Total			74

NUCLEAR MEDICINE TECHNOLOGIST

The nuclear medicine technologist is concerned with diagnostic, therapeutic (exclusive of sealed radiation sources), and investigative use of radionuclides. The technologist receives, positions, and attends to patients. He/she has skills in mathematical computation to make dose calculations for in vivo studies and assists the physician in the operation of scanning devices using isotopes. The nuclear medicine technologist is concerned with safety and has responsibility for disposal of radioactive waste, safe storage of radioactive material, and the inventory and control of radiopharmaceuticals.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I and SPRING SEMESTER I			
Core Curriculum			36
SUMMER SESSION I			
PHY 131—Applied Physics	3	3	4
SUMMER SESSION II			
PHY 132—Applied Physics	3	3	4
FALL SEMESTER II			
AHT 220—Nuclear Medicine Physics	4	4	5
AHT 224—Clinical Nuclear Medicine	3	4	4
AHT 226—Radiochemistry - Pharmacy I	2	4	3
AHT 228—Nuclear Medicine Practicum I	0	7	1
ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER II			
AHT 232—Radio Chemistry - Pharmacy II	2	4	3
AHT 230—Radiation Biology	1	0	1
AHT 234—Radiation Therapy	1	0	1
AHT 236—Nuclear Medicine Practicum II	0	16	2
ENG 102—Composition and Literature	3	0	3
PSY 105—Introduction to Psychology	3	0	3
SUMMER SESSION (8 weeks)			
AHT 238—Nuclear Medicine Seminar	1	0	1
AHT 239—Nuclear Medicine Internship	0	35	5
Total			79

RADIATION THERAPY TECHNOLOGIST

The radiation therapy technologist assists the radiologist in treatment of disease by exposing specific areas of the patient's body to prescribed doses of x-ray or other forms of ionizing radiation. The technologist assists in maintaining proper operation of controlling devices and equipment used in treatment, observes radiation safety measures, observes patients for unusual reactions and reports to the radiation therapist, and assists in tumor localization and dosimetric procedures.

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I and SPRING SEMESTER I			
Core Curriclulum			36
SUMMER SESSION I			
PHY 131—Applied Physics	3	3	4
SUMMER SESSION II			
PHY 132—Applied Physics	3	3	4
FALL SEMESTER II			
AHT 240—Technical Radiation Therapy	2	0	2
AHT 242—Radiation Oncology I	2	0	2
AHT 250—Radiation Therapy Practicum I	0	32	5
PSY 105—Introduction to Psychology	3	0	3
SPRING SEMESTER II			
AHT 230—Radiation Biology	1	0	1
AHT 253—Radiation Physics	4	0	4
AHT 247—Brachy Therapy	1	0	1
AHT 252—Radiation Therapy Practicum II	0	30	5
AHT 244—Radiation Oncology II	2	0	2
SUMMER SESSION (12 weeks)			
AHT 246—Radiation Oncology III	2	0	2
AHT 254—Radiation Therapy Practicum III	0	32	6
Total			77

APPAREL DESIGN

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DES 128—Introduction to Mass Production and Apparel (1st 8 Weeks)	4	0	2
DES 129—Industrial Garment Construction (1st 8 Weeks)	0	6	1
DES 234—History of Costume	3	0	3
DES 110—Basic Color Theory and Application	2	4	3
PDD 151—Pattern Drafting I (2nd 8 Weeks)	4	8	3
SPRING SEMESTER I			
DES 135—Textiles	2	2	3
DES 136—Fashion Sketching	2	4	3
DES 235—History of Costume	3	0	3
PDD 152—Pattern Drafting II (1st 8 Weeks)	4	8	3
PDD 153—Pattern Drafting III (2nd 8 Weeks)	4	8	3
FALL SEMESTER II			
DES 229—Advanced Garment Construction	2	3	3
PDD 254—Pattern Drafting IV (1st 8 Weeks)	4	8	3
PDD 255—Pattern Drafting V (2nd 8 Weeks)	4	8	3
APP 232—Design Development I	2	4	3
APP 237—Style Trends and Research I	2	0	2
SPRING SEMESTER II			
PDD 256—Pattern Drafting VI (1st 8 Weeks)	4	8	3
PDD 257—Pattern Drafting VII (2nd 8 Weeks)	4	8	3
APP 233—Design Development II	2	4	3
APP 238—Style Trends and Research II	2	0	2
DES 140—Draping or	0	2	1
PDD 812—Cooperative Work Experience	1	10	2
PDD 813—Cooperative Work Experience	1	15	3
PDD 814—Cooperative Work Experience	1	20	4
REQUIRED SUPPORT COURSES			
ENG 101—Composition and Expository Reading			3
ENG 102—Composition and Literature			3
PSY 105—Introduction to Psychology or			
HD 105—Basic Processes of Interpersonal Relationships			3
BUS 105—Introduction to Business			3
HUM 101—Introduction to Humanities			3
Total			68-71

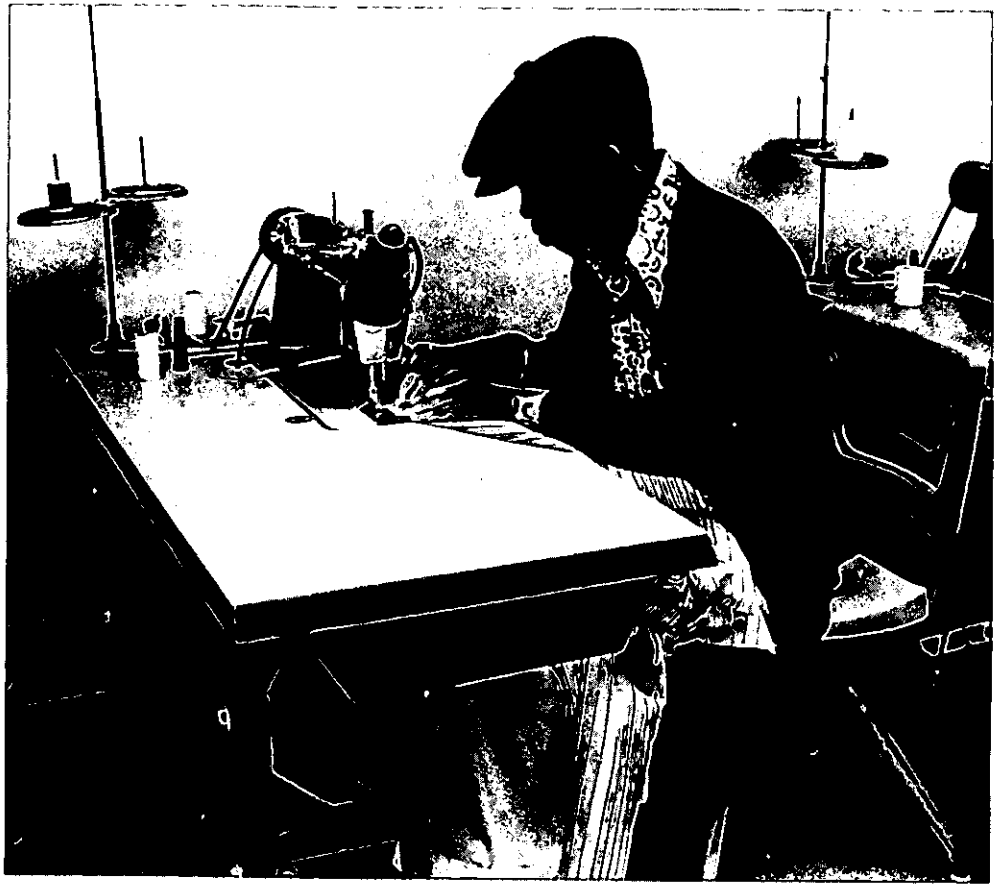
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GENERAL INFORMATION AND OBJECTIVES

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 salable designs. Upon successful completion of the two-year associate degree program the student enters a woman's wear or children's wear manufacturing company as an assistant in the design department.

ADMISSION TO THE PROGRAM

1. Contact the Humanities Division for a Design Institute Information form and for the schedule showing when indicator tests are given.
2. Fulfill all requirements for admission to El Centro College.



ARCHITECTURAL DRAFTING

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
ARC 130—Architectural Graphics I	2	4	3
ARC 134—Freehand Drawing I	2	4	3
ARC 146—Architectural Design, Grade I	2	4	3
ARC 150—Building Technology I - Methods and Materials	2	4	3
ARC 128—History of Architecture I	3	0	3
SPRING SEMESTER			
ARC 133—Architectural Graphics II	2	4	3
ARC 135—Freehand Drawing II	2	4	3
ARC 147—Architectural Design, Grade I	2	4	3
ARC 153—Construction Drawings I - Wood Frame	2	4	3
ARC 129—History of Architecture II	3	0	3
Total			30

(Upon completion of the architectural courses listed above, the student will be issued a certificate in architectural drafting from El Centro College.)

ARCHITECTURAL TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ARC 130—Architectural Graphics I	2	4	3
ARC 134—Freehand Drawing I	2	4	3
ARC 146—Architectural Design, Grade I	2	4	3
ARC 150—Building Technology I - Methods and Materials	2	4	3
ARC 128—History of Architecture I	3	0	3
SPRING SEMESTER I			
ARC 133—Architectural Graphics II	2	4	3
ARC 135—Freehand Drawing II	2	4	3
ARC 147—Architectural Design, Grade I	2	4	3
ARC 153—Construction Drawings I - Wood Frame	2	4	3
ARC 129—History of Architecture II	3	0	3
			30

(Upon completion of the architectural courses listed above the student will be issued a certificate in architectural drafting from El Centro).

FALL SEMESTER II			
ARC 230—History of Modern Architecture	3	0	3
Architecture Elective			3
Architecture Elective			3
English or Communications	3	0	3
Algebra or Technical Math	3	0	3
SPRING SEMESTER II			
Architecture Elective			3
Architecture Elective			3
Architecture Elective			3
Architecture Elective			3
English or Communications	3	0	3
Total			60

This program is designed to meet the flexible requirements of the student for preparation for employment within the construction industry—architect's office, engineer or contractor's office or material supplier—or for the student who wishes to continue the study of architecture or environmental design at a senior institution.

Architecture Electives: The student may choose any six of the following courses: ARC 220—Personalities in Art and Architecture, ARC 226—Survey of Interior Architecture I, ARC 227—Survey of Interior Architecture II, ARC 242—Presentation I, ARC 243—Presentation II, ARC 245—Design Sketching, ARC 246—Architectural Design - Grade II, ARC 247—Architectural Design, Grade II, ARC 251—Building Technology II - Heavy Construction, ARC 252—Building Technology III - Specifications, ARC 254—Construction Drawings II - Steel Frame, ARC 255—Construction Drawings III - Concrete and Masonry, ARC 256—Construction Drawings IV - Detailing.

ASSOCIATE DEGREE NURSING

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
SUMMER SESSION			
*PHY SCI 118—Physical Science or	3	2	4
†Lab Science Elective			
FALL SEMESTER I			
NUR 141—Nursing I	4	11	7
BIO 120—Introduction to Human Anatomy and Physiology or			
BIO 221—Anatomy and Physiology I	3	3	4
*PSY 105—Introduction to Psychology	3	0	3
*ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER I			
NUR 142—Nursing II	4	11	7
BIO 121—Human Anatomy and Physiology or			
BIO 222—Anatomy and Physiology II	3	3	4
*PSY 201—Developmental Psychology	3	0	3
*ENG 102—Composition and Literature	3	0	3
SUMMER SESSION			
NUR 240—Nursing III	7	15	4
FALL SEMESTER II			
NUR 250—Nursing IV	5	12	9
*SOC 101—Introduction to Sociology	3	0	3
SPRING SEMESTER II			
NUR 255—Nursing V	5	12	9
*Elective	3	0	3
Total			66

* May be taken during the initial summer session or prior to enrolling in the first nursing course.

† Lab science elective may be biology, chemistry, microbiology, but not geology or astronomy. ADN liaison counselor approval needed.

ALTERNATE CURRICULUM PATTERN FOR JANUARY ADMISSION
ASSOCIATE DEGREE NURSING

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
PHY SCI 118—Physical Science or *Lab Science Elective	3	2	4
SPRING SEMESTER I			
NUR 141—Nursing I	4	11	7
BIO 120—Introduction to Human Anatomy and Physiology or BIO 221—Anatomy and Physiology I	3	3	4
PHY 105—Introduction to Psychology	3	0	3
ENG 101—Composition and Expository Reading	3	0	3
FALL SEMESTER I			
NUR 142—Nursing II	4	11	7
PSY 201—Developmental Psychology	3	0	3
BIO 121—Human Anatomy and Physiology or BIO 222—Anatomy and Physiology II	3	3	4
ENG 102—Composition and Literature	3	0	3
SPRING SEMESTER II			
NUR 250—Nursing IV	5	12	9
SOC 101—Introduction to Sociology	3	0	3
SUMMER SESSION			
†NUR 240—Nursing III	7	15	4
FALL SEMESTER II			
NUR 255—Nursing V	5	12	9
Elective	3	0	3
Total			66

*Lab science elective may include biology, chemistry, microbiology, but not geology or astronomy.

†Nursing 240 precedes Nursing 255 for January curriculum plan.

GENERAL INFORMATION AND OBJECTIVES

This program requires two calendar years of study. Upon completion of the program, the student is awarded an associate in applied arts and sciences degree. In order to be certified by the college as eligible to write the State Board Test Pool Examination for qualification as a registered nurse, a student must, in addition to satisfying degree requirements, comply with the minimum standards for testing prescribed by the Board of Nursing Examiners for the State of Texas. Students are required to be covered by professional liability insurance.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Contact counseling office for admission packet.
3. Admission to the first nursing course occurs twice a year, August and January. The curriculum plan must be followed in sequence under the plan entered.

DATA PROCESSING — DATA PROCESSING PROGRAMMER OPTION

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
CS 175—Introduction to Computer Science	3	0	3
DP 139—Technician	2	4	3
DP 137—Data Processing Math or MTH 130—Business Mathematics	3	0	3
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
ACC 131—Bookkeeping I or ACC 201—Principles of Accounting I	3	0	3
SPRING SEMESTER I			
DP 133—Beginning Programming (COBOL)	3	4	4
DP 138—Data Processing Logic	3	0	3
BUS 105—Introduction to Business	3	0	3
ACC 202—Principles of Accounting II	3	0	3
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
FALL SEMESTER II			
DP 136—Intermediate Programming (COBOL)	3	4	4
CS 131—RPG Programming or CS 176—FORTRAN Programming	2	2	3
DP or CS elective (any 200 level DP or CS course)			3-4
DP 233—Operating Systems & Communications	3	4	4
ACC 203—Intermediate Accounting or ACC 238—Cost Accounting	3	0	3
SPRING SEMESTER II			
DP 231—Advanced Programming (ALC)	3	4	4
DP 232—Applied Systems	3	4	4
Approved elective (listed below)			3-4
ECO 201—Principles of Economics	3	0	3
Total			62-64

Approved Electives:

Any DP or CS course (including DP 700-800 Cooperative Work Experience
DP 129—Data Entry Concepts
MGT 136—Principles of Management
MGT 206—Principles of Marketing
BUS 234—Business Law
BUS 237—Organizational Behavior
ECO 202—Principles of Economics
MTH 202—Introductory Statistics

Continued

GENERAL INFORMATION AND OBJECTIVES

This curriculum is intended for the preparation of entry-level or trainee computer programmers who will work in an applications setting to support the general, administrative, and organizational information processing function of industry, commerce, business and government service. It is designed as a two-year career program to prepare students for jobs. Graduates should be able to work in conjunction with a systems analyst in the programming environment usually found in a medium to large job shop. It is intended to provide a sufficient foundation so that graduates with experience and continued learning may advance in career paths appropriate to their own particular interests and abilities.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.



INFORMATION SYSTEMS OPTION

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
CS 175—Introduction to Computer Science	3	0	3
DP 133—Beginning Programming (COBOL)	3	4	4
MTH 111—Mathematics for Business and Economics I	3	0	3
ENG 101—Composition and Expository Reading	3	0	3
ACC 201—Principles of Accounting I	3	0	3
SPRING SEMESTER I			
DP 136—Intermediate Programming (COBOL)	3	4	4
MTH 112—Mathematics for Business and Economics II	3	0	3
ENG 102—Composition and Literature	3	0	3
ACC 202—Principles of Accounting II	3	0	3
BUS 105—Introduction to Business	3	0	3
FALL SEMESTER II			
CS 131—RPG Programming or CS 176—FORTRAN Programming	2	2	3
MGT 136—Principles of Management	3	0	3
ACC 203—Intermediate Accounting or ACC 238—Cost Accounting or ACC 239—Income Tax Accounting	3	0	3
ECO 201—Principles of Economics I	3	0	3
Elective	3	0	3
SPRING SEMESTER II			
DP 231—Advanced Programming (ALC)	3	4	4
DP 700-800—Cooperative Work Experience or Elective			3-4
BUS 234—Business Law	3	0	3
ACC 204—Managerial Accounting	3	0	3
ECO 202—Principles of Economics II	3	0	3
Total			63-64

Recommended Electives:

DP 232—Applied Systems
DP 233—Operating Systems & Communications
CS 240—Telecommunications I
Any DP or CS course
PSY 105—Introduction to Psychology
Sophomore English or American History or Government or Humanities

GENERAL INFORMATION AND OBJECTIVES

This curriculum is intended for the preparation of students interested in systems work or other four-year degree programs. The curriculum includes many of the basic data processing courses as well as the basic requirements for four-year programs. There is a heavy emphasis on accounting. Students who plan to obtain baccalaureate degrees should determine what school they wish to transfer to and then seek the assistance of a counselor in planning their program to meet the requirements of the particular college to which they plan to transfer.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

SMALL COMPUTER SYSTEMS INFORMATION SPECIALIST OPTION

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
CS 175—Introduction to Computer Science	3	0	3
DP 139—Technician	2	4	3
DP 137—Data Processing Math or MTH 130—Business Mathematics	3	0	3
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
ACC 131—Bookkeeping I or ACC 201—Principles of Accounting I	3	0	3
SPRING SEMESTER I			
DP 140—Operations—Console	3	3	4
DP 243—Computer Center Management or DP or CS elective (including Data Entry Concepts)			3-4
DP 700-800—Cooperative Work Experience	1	15-20	3-4
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
ACC 132—Bookkeeping II or ACC 202—Principles of Accounting II	3	0	3
FALL SEMESTER II			
DP 133—Beginning Programming (COBOL)	3	4	4
CS 131—RPG Programming	2	2	3
DP 233—Operating Systems & Communications	3	4	4
DP138—Data Processing Logic	3	0	3
SPRING SEMESTER II			
DP 232—Applied Systems	3	4	4
DP 136—Intermediate Programming (COBOL) or DP or CS elective			3-4
MGT 136—Principles of Management	3	0	3
ECO 201—Principles of Economics I	3	0	3
BUS 105—Introduction to Business	3	0	3
Total			61-64

GENERAL INFORMATION AND OBJECTIVES

With the tremendous growth of small computers, an increased need exists for people who can function in a programmer/analyst/operator position within a small shop. This curriculum is intended to prepare students for such employment. 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.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

DATA PROCESSING OPERATOR OPTION

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
CS 175—Introduction to Computer Science	3	0	3
DP 139—Technician	2	4	3
DP 137—Data Processing Math or MTH 130—Business Mathematics	3	0	3
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
ACC 131—Bookkeeping I or ACC 201—Principles of Accounting I	3	0	3
SPRING SEMESTER			
DP 140—Operations—Console	3	3	4
DP 243—Computer Center Management or DP or CS Elective (Including Data Entry Concepts)			3-4
DP 700-800—Series Cooperative Work Experience	1	15-20	3-4
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
ACC 132—Bookkeeping II or ACC 202—Principles of Accounting II	3	0	3
Total			31-33

GENERAL INFORMATION AND OBJECTIVES

This certificate program is designed to develop skills and knowledge necessary to meet the demands of computer operations in today's modern business world; and to enable the student to function as a operator-trainee in any business data processing environment. Typical operator-trainee in any business RJE terminal operator, micro computer operator, mini computer operator, I/O or peripheral device operator, junior computer operator, or possibly console computer operator.

The program includes both classroom and laboratory work directed by experienced professionals using large, modern equipment.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

KEY ENTRY DATA CONTROL PROGRAM OPTION

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
CS 175—Introduction to Computer Science	3	0	3
DP 129—Data Entry Concepts	2	5	4
BUS 105—Introduction to Business	3	0	3
ACC 131—Bookkeeping I or ACC 201—Principles of Accounting I	3	0	3
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER			
DP 137—Data Processing Mathematics or MTH 130—Business Mathematics	3	0	3
DP 139—Technician	2	4	3
DP or CS Elective			3-4
ACC 132—Bookkeeping II or ACC 202—Accounting II	3	0	3
OFC 160—Office Machines	3	0	3
Total			31-32

GENERAL INFORMATION AND OBJECTIVES

The primary objective of this curriculum is to produce well prepared data device operators for entry level positions in local area industries. A secondary objective of this curriculum is to provide data entry operators with sufficient background to enable them, with further on-the-job training, to progress into other positions such as data entry supervisor, data control clerk, data control supervisor, tape/disk librarian, computer operator, documentation specialist, or possible programmer.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

DENTAL ASSISTING TECHNOLOGY

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
DA 140—Introduction to the Dental Profession	1	0	1
DA 136—General & Dental Anatomy & Physiology	3	3	4
DA 142—Dental Assisting I	2	4	3
DA 143—Dental Microbiology and Pathology	2	1	2
DA 144—Dental Materials I	3	3	4
DA 145—Dental Roentgenology I	2	1	2
DA 146—Dental Assisting II	2	1	2
English or Communications	3	0	3
SPRING SEMESTER I			
DA 240—Dental Materials II	1	2	2
DA 241—Dental Roentgenology II	1	2	2
DA 242—Dental Office Administration I	3	0	3
DA 243—Dental Assisting Clinic Seminar I	3	0	3
DA 249—Dental Assisting Internship I	0	13	4
DA 245—Dental Office Administration II	3	0	3
DA 246—Preventive Dentistry	3	0	3
OFC 172—Beginning Typing	2	3	3
SUMMER SEMESTER (6 Weeks only)			
DA 250—Dental Assisting Clinic Seminar II	3	0	1
DA 252—Dental Assisting Internship II	0	13	3
Total Credit Hours			48

Students who wish to continue for the second year must complete a minimum of 60 credit hours to obtain the Associate in Applied Science Degree.

The following courses are suggested:

HD 105—Basic Processes of Interpersonal Relationships	3	0	3
BIO 123—Human Anatomy and Physiology	3	2	4
Electives	5	0	5

GENERAL INFORMATION AND OBJECTIVES

This program prepares the student for area employment in private dental offices and dental clinics. In addition to classroom work, students receive clinical experience in dental clinics, dental schools and other health agencies in the community.

The program is designed so that the student is awarded a certificate of completion in one year and may complete a required number of support courses either before or after the program to receive an Associate in Applied Arts and Sciences. The student will also be eligible to write the certification examination offered by the Dental Assisting National Board to become a "Certified Dental Assistant."

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Contact counseling office for admission packet.

Students are required to carry professional liability insurance.

ACCREDITATION

The Dental Assistant Program has received full accreditation status from the Commission on Dental Accreditation of the American Dental Association.

DRAFTING AND DESIGN TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DFT 183—Basic Drafting	2	6	4
DFT 160—Manufacturing Fundamentals or	2	0	2
EGR 186—Manufacturing Processes	(1)	(2)	(2)
MTH 195—Technical Mathematics	3	0	3
SPRING SEMESTER I			
DFT 184—Intermediate Drafting	2	4	3
EGR 106—Descriptive Geometry	2	4	3
MTH 196—Technical Mathematics	3	0	3
FALL SEMESTER II			
*DFT 231—Electronic Drafting	2	4	3
*DFT 136—Geological and Land Drafting	2	4	3
DFT 135—Reproduction Processes	1	3	2
PHY 131—Applied Physics	3	3	4
Elective or	3	0	3
DFT 703—Cooperative Work Experience	1	15	(3)
SPRING SEMESTER II			
*DFT 230—Structural Drafting	2	4	3
DFT Elective or Art Elective or	3	0	3
DFT 803—Cooperative Work Experience	1	15	(3)
*DFT 232—Technical Illustration	2	4	3
Technical Elective	3	3	(3)
REQUIRED SUPPORT COURSES			
Communications or English			6
American History or American Government			6
Psychology or Human Development			3
Total			60-61

TECHNICAL ELECTIVES
Choose one of the following:

DFT 713—Cooperative Work Experience
DFT 813—Cooperative Work Experience
DFT 234—Advanced Technical Illustration
EGR 105—Engineering Graphics
CS 175—Introduction to Computer Science

* Other drafting courses including DFT 713 and 813—Cooperative Work Experience, may be substituted upon approval. Cooperative work experience courses must have approval of instructor and cooperative education director.

GENERAL INFORMATION AND OBJECTIVES
This two-year program is designed to prepare the student for employment as a draftsman in the fields of electronic, structural, civil, mechanical, general drafting, and technical illustrating. In addition, most, if not all, of the courses may be used for transfer credit to several other institutions that offer the bachelor's degree in technology. The program is offered both day and evening. Many employers in Dallas provide part-time work for students while they are in school.

ADMISSION TO THE PROGRAM
Fulfill all requirements for admission to El Centro College. No prior knowledge of drafting is required.

EDUCATIONAL PARAPROFESSIONAL
EDUCATIONAL ASSOCIATE

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
EP 131—Introduction to Educational Processes I	3	0	3
EP 135—Arts and Crafts	3	0	3
Support and Elective Courses			9
SPRING SEMESTER I			
EP 129—Communication Skills for Educational Paraprofessional	3	0	3
EP 134—Introduction to Media	2	2	3
EP 133—Introduction to Educational Processes II	3	0	3
Support and Elective Courses			6
FALL SEMESTER II			
EP 804—Educational Paraprofessional	1	20	4
Support and Elective Courses			11
SPRING SEMESTER II			
EP 814—Educational Paraprofessional	1	20	4
Support and Elective Courses			11
Total			60

SUPPORT COURSES:

Choose 12 hours from any of the following: Developmental Studies Reading and/or Writing, Communications 131-132, English 101-102, or sophomore-level English courses.

EP 245, 246, 247—Diversified Studies
HD 105—Basic Processes of Interpersonal Relationships
DM 090 or 091 or Math Elective
OFC 172—Beginning Typing
OFC 174—Intermediate Typing
OFC 160—Office Machines
PSY 105—Introduction to Psychology
PSY 201—Developmental Psychology
SOC 101—Introduction to Sociology
SOC 102—Social Problems
PEH 101—Fundamentals of Health
PEH 144—Introduction to Physical Education
PEH 257—Advanced First Aid and Emergency Care
Art or Music (or courses occupationally appropriate and approved by the EP instructor)

GENERAL INFORMATION AND OBJECTIVES

This program is designed to prepare educational paraprofessionals in a wide range of competencies needed for effective roles in public and non-public schools. A student can take courses required for the one-year educational assistant certificate and continue in the program to receive the two-year educational associate degree or may work directly toward the associate degree.

Educational paraprofessionals are employed under job titles such as teacher aide, assistant teacher, library assistant, P.E. aide, study hall teacher, tutor, tutoring coordinator, youth worker, and special education aides. Individuals working with handicapped children have found this program to be especially beneficial.

EDUCATIONAL ASSISTANT

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
EP 131—Introduction to Educational Processes I	3	0	3
EP 135—Arts and Crafts	3	0	3
Support and Elective Courses			9-10
SPRING SEMESTER			
EP 129—Communication Skills for Educational Paraprofessionals	3	0	3
EP 134—Introduction to Media	2	2	3
EP 133—Introduction to Educational Processes II	3	0	3
Support and Elective Courses			6-7
Total			30-32

Students wishing to receive the one-year educational assistant certificate must take the five EP courses listed above (EP 129, 131, 132, 133, 135) plus an additional 15 credit-hours as approved from the overall Educational Paraprofessional Program for a total of 30 semester credit hours.

SUPPORT COURSES:

Choose 12 hours from any of the following: Developmental Studies Reading and/or Writing, Communications 131-132, English 101-102, or sophomore-level English courses.

EP 245, 246, 247—Diversified Studies
HD 105—Basic Processes of Interpersonal Relationships
DM 090 or 091 or Math Elective
OFC 172—Beginning Typing
OFC 174—Intermediate Typing
OFC 160—Office Machines
PSY 105—Introduction to Psychology
PSY 201—Developmental Psychology
SOC 101—Introduction to Sociology
SOC 102—Social Problems
PEH 101—Fundamentals of Health
PEH 144—Introduction to Physical Education
PEH 257—Advanced First Aid and Emergency Care
Art or Music (or courses occupationally appropriate and approved by the EP instructor)

GENERAL INFORMATION AND OBJECTIVES

The one-year educational assistant option to the Educational Paraprofessional Program has basically the same purpose as the associate degree program but offers the option of a shorter training period.

FIRE PROTECTION TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FPT 131—Introduction to Fire Protection	3	0	3
FPT 132—Fire Prevention Theory and Application	3	0	3
FPT 135—Introduction to Fire Administration	3	0	3
FPT 136—Fire Investigation and Arson	3	0	3
FPT 139—Fire Operations Strategy	3	1	4
FPT 231—Fire Protection Through Building Construction	3	0	3
FPT 232—Protection Systems in Industry	3	0	3
FPT 233—Fire Protection Systems	3	0	3
FPT 234—Industrial Fire Protection II	3	0	3
FPT 235—Fire Administration II	3	0	3
REQUIRED SUPPORT COURSES			
English			3
MTH 130—Business Mathematics			3
Speech			3
Government			3
CHM 115, 116—General Chemistry			8
CHM 170—Chemistry of Flammable Materials			3
FPT 243—Technical Writing			3
Any two of the following:			
FPT 236, FPT 237, FPT 240, FPT 238, FPT 239, FPT 241, FPT 242			6
*Electives			6
Total			69

* Electives must come from the list of recommended electives.

Recommended Electives:

PSY 105—Introduction to Psychology
SOC 101—Introduction to Sociology
HD 105—Basic Processes of Interpersonal Relationships

GENERAL INFORMATION AND OBJECTIVES

The course work in this associate degree program is geared to improve the fireman's professional qualifications in fire prevention, administration, supervision, and fire control techniques. Another objective is to promote an understanding of municipal government with emphasis on the fireman's role in today's society.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Should be currently employed in one of the organized fire departments of Dallas County.

FOOD SERVICE
DIETETIC TECHNICIAN

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FIRST YEAR			
FS 119—Food Service Equipment	3	0	3
FS 120—Basic Food Preparation	2	4	3
FS 122—Advanced Food Preparation	2	4	3
FS 124—Food Service Sanitation and Safety	3	0	3
FS 132—Food Purchasing, Handling and Storage	3	0	3
FS 135—Nutrition and Menu Planning	3	0	3
FS 136—Supervisory Techniques in Food Service	3	0	3
Any one of the following:			
FS 138—Food Service Cost Control			
MTH 130—Business Mathematics			
ACC 131—Bookkeeping I			
ACC 201—Principles of Accounting I			
SECOND YEAR			
FS 220—Quantity Food Preparation and Service	3	5	4
FS 222—Advanced Quantity Food Preparation and Service	3	5	4
FS 237—Organization and Management	3	0	3
FS 804—Cooperative Work Experience	1	20	4
FS 814—Cooperative Work Experience	1	20	4
FS 242—Community Nutrition	3	3	4
FS 243—Clinical Nutrition or			
FS 244—Child Nutrition	3	3	4
REQUIRED SUPPORT COURSES			
COM 131 and 132—Applied Composition and Speech or			
ENG 101—Composition and Expository Reading and			
ENG 102—Composition and Literature			6
HST 101 and 102—History of the United States or			
GVT 201 and 202—American Government			6
HD 105—Basic Processes of Interpersonal Relationships or			
HD 107—Developing Leadership Behavior or			
PSY 105—Introduction to Psychology or			
SOC 101—Introduction to Sociology			6
Total			66

Before completing this program, the student will be required to work a minimum of 640 hours in an approved work station—equal time to be spent in food preparation and in supervision. A weekly seminar enables the student to discuss his or her work experiences in a classroom setting.

GENERAL INFORMATION AND OBJECTIVES

The Dietetic Technician Program trains men and women to assume responsible positions in the institutional field of food service such as hospitals, extended care facilities, nursing homes, and community nutrition programs.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

FOOD SERVICE
DIETETIC ASSISTANT

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FS 120—Basic Food Preparation	2	4	3
FS 122—Advanced Food Preparation	2	4	3
FS 124—Food Service Sanitation and Safety	3	0	3
FS 136—Supervisory Techniques	3	0	3
FS 119—Food Service Equipment	3	0	3
FS 132—Food Purchasing, Handling, and Storage	3	0	3
FS 135—Nutrition and Menu Planning	3	0	3
FS 804—Cooperative Work Experience	1	20	4
REQUIRED SUPPORT COURSES			
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
MTH 130—Business Math	3	0	3
Total			31

Before completing this program, the student will be required to work a minimum of 320 hours in an approved work station—equal time to be spent in food preparation and supervision. A weekly seminar enables the student to discuss his or her work experiences in a classroom setting.

GENERAL INFORMATION AND OBJECTIVES

The Dietetic Assistant Program trains men and women to assume a responsible position in the institutional field of food service such as hospitals, extended care facilities, nursing homes, school lunch programs, and college dormitories. Courses in nutrition and dietetics, basic and quantity food preparation, and institutional food service management are the core of this curriculum.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

FOOD SERVICE OPERATIONS

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FIRST YEAR			
FS 119—Food Service Equipment	3	0	3
FS 120—Basic Food Preparation	2	4	3
FS 122—Advanced Food Preparation	2	4	3
FS 124—Food Service Sanitation and Safety	3	0	3
FS 132—Food Purchasing, Handling, and Storage	3	0	3
FS 135—Nutrition and Menu Planning	3	0	3
FS 136—Supervisory Techniques for Food Service	3	0	3
FS 138—Food Service Cost Control	3	0	3
MTH 130—Business Math	3	0	3
SECOND YEAR			
FS 220—Quantity Food Preparation and Service	3	5	4
FS 222—Advanced Quantity Food Preparation and Service	3	5	4
FS 233—Food Service Marketing	3	0	3
FS 804—Cooperative Work Experience	1	20	4
FS 814—Cooperative Work Experience	1	20	4
Any two of the following:			
FS 140—Elementary Bakery Training	2	4	(3)
FS 231—Food Service Financial Management	3	0	(3)
FS 238—Garde Manger Training	2	4	(3)
FS 239—Saucier Training	2	4	(3)
FS 247—Beverage Operations and Service	3	0	(3)
ACC 201—Principles of Accounting I	3	0	(3)
BUS 234—Business Law	3	0	(3)
BUS 237—Organizational Behavior	3	0	(3)
PEH 257—Advanced First Aid and Emergency Care	3	0	(3)
ECO 201—Principles of Economics I	3	0	(3)
FS 201—Special Topics in Food Service	1	0	(1)
FS 202—Special Topics in Food Service	2	0	(2)
FS 203—Special Topics in Food Service	3	0	(3)
REQUIRED SUPPORT COURSES			
COM 131 and 132—Applied Composition and Speech or ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature			6
HST 101 and 102—History of the United States or GVT 201 and 202—American Government			6
HD 105—Basic Processes of Interpersonal Relationships or HD 107—Developing Leadership Behavior or PSY 105—Introduction to Psychology or SOC 101—Introduction to Sociology			3
Total			67

GENERAL INFORMATION AND OBJECTIVES

The Food Service Operations Program trains students to assume responsible positions in the commercial sector of the food service industry. Courses are geared to cover the various operational functions of restaurants, hotel food service, cafeterias, coffee shops, and other types of fast food service.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

GENERAL OFFICE OCCUPATIONS

(Associate Degree in Applied Arts and Sciences and/or One-Year Certificate)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
OFC 160—Office Machines	3	0	3
*OFC 172—Beginning Typing	2	3	3
BUS 105—Introduction to Business	3	0	3
MTH 130—Business Mathematics	3	0	3
SPRING SEMESTER I			
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
ACC 131—Bookkeeping I or ACC 201—Principles of Accounting I	3	0	3
*OFC 174—Intermediate Typing	1	2	2
OFC 162—Office Procedures	3	0	3
OFC 165—Introduction to Word Processing	3	0	3
A one-year certificate is awarded for the above one-year curriculum.			
FALL SEMESTER II			
†ACC 132—Bookkeeping II	3	0	3
PSY 131—Human Relations	3	0	3
OFC 231—Business Correspondence	3	0	3
*OFC 273—Advanced Typing	1	2	2
Elective			3-4
SPRING SEMESTER II			
OFC 256—Office Management	3	0	3
OFC 275—Secretarial Procedures	3	0	3
OFC 265—Word Processing Practices and Procedures	3	0	3
BUS 234—Business Law	3	0	3
BUS 237—Organizational Behavior	3	0	3
Elective			3-4
Total			61-62

* Students may be placed in typing courses based on proficiency level determined by previous training, experience, and/or placement tests.
† This course does not have to be taken if ACC 201 has been successfully completed, but an elective course must be substituted in its place.

SUGGESTED ELECTIVES:
OFC 803, 804, 813, 814—Secretarial Careers Cooperative Education
DP 129—Data Entry Concepts
ECO 201—Principles of Economics
PSY 105—Introduction to Psychology
SOC 101—Introduction to Sociology
MGT 136—Principles of Management
OFC 143—Contemporary Topics in Office Careers

GENERAL INFORMATION AND OBJECTIVES
This program develops the knowledge, skills, and abilities necessary for assuming responsible positions in typing, transcribing, filing, and all general clerical areas.

ADMISSION TO THE PROGRAM
Fulfill all requirements for admission to El Centro College.

HOTEL-MOTEL OPERATIONS

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FIRST YEAR			
HMO 110—Principles of Hotel Administration	3	0	3
HMO 112—Hotel-Motel Housekeeping	3	0	3
HMO 114—Front Office Procedures	2	4	3
HMO 116—Hotel-Motel Engineering	3	0	3
FS 124—Food Service Sanitation	3	0	3
FS 136—Supervisory Techniques in Food Service	3	0	3
MTH 130—Business Math	3	0	3
SECOND YEAR			
HMO 210—Hotel-Motel Sales Development	3	0	3
HMO 212—Hotel-Motel Accounting	3	0	3
HMO 214—Hotel-Motel Law	3	0	3
HMO 216—Hotel-Motel Property Management	3	0	3
HMO 804—Cooperative Work Experience	1	20	4
HMO 814—Cooperative Work Experience	1	20	4
FS 247—Beverage Operations and Service	3	0	3
ELECTIVES			
Any three of the following:			9
FS 119—Food Service Equipment			
FS 132—Food Service Purchasing			
FS 135—Nutrition and Menu Planning			
FS 138—Food Service Cost Control			
FS 231—Food Service Financial Management			
ACC 131—Bookkeeping I			
MGT 136—Principles of Management			
ACC 201—Principles of Accounting I			
OFC 231—Business Communications			
BUS 234—Business Law			
BUS 237—Organizational Behavior			
PEH 257—Advanced First Aid and Emergency Care			
REQUIRED SUPPORT COURSES			
COM 131 and 132—Applied Composition and Speech or ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature			6
HST 101 and 102—History of the United States or GVT 201 and 202—American Government			6
HD 105—Basic Processes of Interpersonal Relationships or PSY 105—Introduction to Psychology or SOC 101—Introduction to Sociology or SOC 102—Social Problems			3
Total			68

Continued

Before completing this program, the student will be required to work a minimum of 640 hours in an approved work station—of a hotel or motel. A weekly seminar enables the student to discuss his or her experience in a classroom setting.

GENERAL INFORMATION AND OBJECTIVES

The Hotel-Motel Operations Program trains students to assume responsible positions in hotels and motels of various sizes and types.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.



INTERIOR DESIGN

(Professional Certificate in Interior Design)
(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
INT 120—Basic Planning	2	4	3
INT 121—Basic Color Theory for Interior Design	2	4	3
INT 144—Philosophy of Design	1	0	1
ART 105—Survey of Art History	3	0	3
ART 110—Design I	2	4	3
*DES 135—Textiles or	2	2	3
HD 105—Basic Processes of Interpersonal Relationships	3	0	3
SPRING SEMESTER I			
INT 123—Advanced Planning and Perspective	2	4	3
INT 124—Color and Lighting	2	4	3
INT 225—Architectural Drawing I	2	4	3
ART 106—Survey of Art History	3	0	3
*DES 135—Textiles or	2	2	3
HD 105—Basic Processes of Interpersonal Relationships	3	0	3

* DES 135 and HD 105 can be taken alternately in either the fall or spring semester.

(All Interior and Design courses must be successfully completed before student will be admitted into the second year.)

FALL SEMESTER II			
INT 222—History of Interior Arts I	5	0	5
INT 226—Architectural Drawing II	2	4	3
INT 233—Fabrications I	2	4	3
INT 235—Inner Space Composition and Presentation	2	4	3
SOC 102—Social Problems	3	0	3
SPRING SEMESTER II			
INT 223—History of Interior Arts II	5	0	5
INT 224—Interior Graphics and Illustration	2	4	3
INT 240—Design Sources	1	0	1
INT 234—Fabrications II	2	4	3
COM 132—Applied Composition and Speech	3	0	3
MGT 230—Salesmanship or			
ACC 131—Bookkeeping I or			
ACC 201—Accounting I	3	0	3

Continued

(All Interior courses must be successfully completed before student will be admitted into the third year.)

FALL SEMESTER III

INT 237—Advanced Principles of Interior Design	3	3	4
INT 342—20th Century Designs	3	0	3
*INT 343—Research and Presentation and/or	2	0	2
*INT 341—Special Project or	1	0	1
*INT 801, (802, 803)—Cooperative Work Experience	1	5(10,15)	1(2,3)

SPRING SEMESTER III

INT 238—Client Psychology Survey and Business Procedures	3	3	4
INT 239—Principles of Commercial Interior Design	3	3	4
*INT 343—Research and Presentation and/or	2	0	2
*INT 341—Special Project or	1	0	1
*INT 811 (812, 813)—Cooperative Work Experience	1	5(10,15)	1(2,3)
Total			84 (85,86)

* INT 343 is a required course which may be taken either semester.

INT 341 and INT 801 (811) are alternates to each other—only one is required. If the student chooses to enroll for Cooperative Work Experience (INT 801 or 811), the student will be assigned to a local design studio for the semester in order to acquire on-the-job training experience.

REQUIRED SUPPORT COURSES

ART 105—Survey of Art History
ART 106—Survey of Art History
ART 110—Design I
ACC 131—Bookkeeping I or ACC 201—Accounting I or
MGT 230—Salesmanship
COM 132—Applied Composition and Speech
HD 105—Basic Processes of Interpersonal Relationships
SOC 102—Social Problems

GENERAL INFORMATION AND OBJECTIVES

The Interior Design Program qualifies the student to provide solutions for interior spaces of public structures and private residences. The curriculum includes studies in art, architecture, business, communications, sociology, and textiles with major concentration in interior design.

The program consists of six semesters of study in Interior Design and related courses. However, a student may file for an Applied Arts and Sciences degree after successful completion of the first two years of the program. A professional certificate is awarded upon successful completion of all courses identified in the six semester curriculum. The certificate qualifies the graduate to enter the profession of interior design as a beginning professional.

This program is fully accredited by F.I.D.E.R. (Foundation for Interior Design Education Research)

ADMISSION TO THE PROGRAM

1. Contact the Division of Counseling for application to the Interior Design program and for scheduling a time to take the design indicator test.
2. Fulfill all requirements for admission to El Centro College including the evaluation of transfer of credit from a recognized school.

LEGAL ASSISTANT

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
LA 131—Introduction to Legal Technology	3	0	3
LA 135—Texas Legal Systems	3	0	3
GVT 201—American Government	3	0	3
ENG 101—Composition and Expository Reading	3	0	3
ACC 201—Principles of Accounting I	3	0	3
SPRING SEMESTER I			
LA 133—Law of Real Property and Real Estate Transactions	3	0	3
LA 134—Principles of Family Law	3	0	3
OFC 231—Business Communications	3	0	3
ACC 202—Principles of Accounting II	3	0	3
LA 139—Legal Research and Drafting	1	2	2
Support Course (must be from required support course list)	3	0	3
FALL SEMESTER II			
LA 231—Wills, Trusts, and Probate Administration	3	0	3
LA 225—Business Organizations	3	0	3
LA 227—Civil Litigation	3	0	3
Support Course (must be from required support course list)	3	0	3
LA Elective	3	0	3 or 4
SPRING SEMESTER II			
LA 234—Personal Property, Sales and Credit Transactions	3	0	3
LA 235—Techniques of Legal Practice and Procedure	3	3	4
LA 233—Income Taxation and Legal Accounting	3	0	3
Support Course (must be from required support course list)	3	0	3
LA Elective	3	0	3 or 4
Total			63 or 65

REQUIRED SUPPORT COURSES

The student will be required to take 3 courses from the support courses listed below:

BUS 234—Business Law
GVT 202—American Government
BUS 237—Organizational Behavior
SOC 101—Introduction to Sociology
CS 175—Introduction to Computer Science
HD 105—Basic Processes of Interpersonal Relationships
ECO 201—Principles of Economics
PHI 105—Logic
POL 134—Criminal Evidence and Procedure

Continued

REQUIRED ELECTIVE COURSES

The student will be required to take 2 courses from the LA Elective courses listed below:

LA 803 or 804—Cooperative Work Experience
LA 813 or 814—Cooperative Work Experience
LA 236—Legal Office Management
LA 248—Constitutional and Criminal Law
LA 251—Complex Litigation and the Anti-Trust and Securities Laws
LA 255—Oil and Gas Law
LA 232—Torts and Insurance Law and Claims Investigation

GENERAL INFORMATION AND OBJECTIVES

The Legal Assistant Program is an associate degree program designed to prepare the student to function as a technically qualified assistant to a 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.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

MANAGEMENT CAREERS

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

CORE COURSES (Required for all options)	LEC. HRS.	LAB. HRS.	CR. HRS.
BUS 105 — Introduction to Business	3	0	3
ACC 201 — Principles of Accounting I or	3	0	3
ACC 131 — Bookkeeping I and	(3)	0	(3)
ACC 132 — Bookkeeping II	(3)	0	(3)
ECO 201 — Principles of Economics I	3	0	3
ECO 202 — Principles of Economics II	3	0	3
CS 175 — Introduction to Computer Science	3	0	3
MGT 136 — Principles of Management	3	0	3
PSY 131 — Human Relations	3	0	3
HUM 101 — Introduction to the Humanities	3	0	3
Total			24-27
SUPPORT COURSES (Required for all options)			
COM 131 — Applied Composition and Speech*	3	0	3
COM 132 — Applied Composition and Speech*	3	0	3
Social Science elective or Humanities elective	3	0	3
MTH 111 — Math for Business & Economics I or MTH 112 — Math for Business & Economics II or MTH 130 — Business Math	3	0	3
Total			12

ADMINISTRATIVE MANAGEMENT OPTION

The Administrative Management option offers a continuation of the traditional management and business studies which were begun in the required core courses.

	LEC. HRS.	LAB. HRS.	CR. HRS.
ACC 202 — Principles of Accounting II	3	0	3
MGT 206 — Principles of Marketing	3	0	3
BUS 234 — Business Law	3	0	3
MGT 242 — Personnel Administration	3	0	3
BUS 237 — Organizational Behavior	3	0	3
OFC 231 — Business Communications	3	0	3
†Electives			9
Total			27

MID-MANAGEMENT OPTION

The Mid-Management option is a cooperative plan with members of the business community whereby the student attends college classes in management and related courses and concurrently works at a regular, paid, part-time or full-time job in a sponsoring business firm. To enter the Mid-Management option, students must make formal application and be interviewed by a member of the Mid-Management faculty before final acceptance will be granted.

	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 150 — Management Training	0	20	4
MGT 154 — Management Seminar: Role of Supervision	2	0	2
MGT 151 — Management Training	0	20	4
MGT 155 — Management Seminar: Personnel Management	2	0	2
MGT 250 — Management Training	0	20	4
MGT 254 — Management Seminar: Organizational Development	2	0	2
MGT 251 — Management Training	0	20	4
MGT 255 — Management Seminar: Business Strategy, the Decision Process & Problem Solving	2	0	2
†Electives			3
Total			27

SMALL BUSINESS MANAGEMENT OPTION

The Small Business Management option is designed to assist owners and managers of small businesses in developing the skills and techniques necessary for operation. This option is also designed for students who plan to become owners or operators of small businesses.

	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 206—Principles of Marketing	3	0	3
MGT 153—Small Business Management	3	0	3
MGT 157—Small Business Bookkeeping & Accounting Practices	3	0	3
MGT 210—Small Business Capitalization, Acquisition & Finance	3	0	3
MGT 211—Small Business Operations	3	0	3
BUS 234—Business Law	3	0	3
Electives			9
Total			27

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

† Suggested Electives: OFC 160, OFC 172, MGT 137, MGT 212, MGT 230, MGT 233.

MEDICAL ASSISTING TECHNOLOGY

(Associate Degree in Applied Arts and Sciences or One-Year Certificate in Medical Assisting Technology)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BIO 123—Applied Anatomy and Physiology	3	2	4
*OFC 174—Intermediate Typing	1	2	2
MA 150—Orientation to Medical Office Careers	1	0	1
MA 151—Medical Technology	4	0	4
MA 152—Medical Law and Ethics	2	0	2
MA 153—Medical Office Microbiology and Sterilization Procedures	2	2	3
SPRING SEMESTER			
MA 160—Medical Transcription	2	6	4
MA 161—Medical Office Administrative and Management Procedures	3	0	3
MA 162—Medical Office Bookkeeping and Insurance Procedures	3	0	3
MA 163—Medical Office Clinical Medical Assisting Procedures	2	2	3
MA 164—Medical Office Pharmacology and Drug Administration	2	2	3
SUMMER SESSION I			
MA 170—Medical Office X-Ray Orientation and Electromedical Instrumentation	5	5	3
MA 171—Medical Office Laboratory Procedures (Summer Only)	5	5	3
SUMMER SESSION II			
MA 172—Medical Assisting Externship (A minimum of 180 hours of supervised externship may be offered Fall, Spring, or Summer)	2	38	6
Total for Certificate			44
SUPPORT COURSES FOR ASSOCIATE DEGREE			
ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature or COM 131 and 132—Applied Composition and Speech			6
HUM 101—Introduction to the Humanities or HD 105—Basic Processes of Interpersonal Relationships			3
PSY 105—Introduction to Psychology			3
PEH 257—Advanced First Aid and Emergency Care			3
Elective			3
Total for Associate Degree			62

* If typing skills can be demonstrated with a minimum of 50 corrected wpm, OFC 174 will not be required.

GENERAL INFORMATION AND OBJECTIVES

This program provides specialized training in which the student developes basic skills and knowledge necessary to function as a medical secretary, administrative and clinical medical-office assistant. Employment is available in medical offices, clinics, hospitals and other organizations requiring a background in medical office procedures.

The program is designed so that the student may receive a certificate in one year or may complete a required number of support courses either before or after taking the medical assisting courses and receive an associate degree in applied arts and sciences.

A student must, in addition to satisfying certificate requirements for the college, comply with the minimum standards for testing prescribed by the Certifying Board of the American Association of Medical Assistants before being able to sit for the National Board Examination.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Conference with counselor and program coordinator.
3. New students may enter in fall or spring semester.

Students are required to be covered by professional liability insurance.

ACCREDITATION

The educational program for Medical Assistants has been accredited by the Committee on Allied Health Education and Accreditation in collaboration with the American Association of Medical Assistants, Inc.

MEDICAL LABORATORY TECHNICIAN

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
BIO 101—General Biology	3	3	4
CHM 101—General Chemistry	3	3	4
MLT 133—Hematology	3	4	4
MLT 135—Urinalysis	2	4	3
*MTH 101—College Algebra	3	0	3
SPRING SEMESTER I			
BIO 102—General Biology	3	3	4
CHM 102—General Chemistry	3	3	4
MLT 138—Immunology	3	4	4
PSY 105—Introduction to Psychology	3	0	3
SUMMER SESSION (12 Weeks)			
MLT 139—Clinical Practice I	2	33	8
FALL SEMESTER II			
BIO 221—Anatomy and Physiology	3	3	4
CHM 203—Quantitative Analysis	2	6	4
ENG 101—Composition and Expository Reading	3	0	3
MLT 229—Medical Microbiology I	3	4	4
SPRING SEMESTER II			
BIO 222—Anatomy and Physiology	3	3	4
ENG 102—Composition and Literature	3	0	3
MLT 231—Clinical Chemistry	3	4	4
MLT 236—Medical Microbiology II	3	4	4
SUMMER SESSION (12 Weeks)			
MLT 238—Clinical Practice II	2	33	8
Total			79

* Students without two years of high school alegbra will take MTH 093 and then MTH 101.

GENERAL INFORMATION AND OBJECTIVES

This two-year program prepares the student to perform tests and related duties in a medical laboratory under the supervision of a medical technologist. Upon successful completion of the program, the student is awarded an associate degree in applied arts and sciences. In order to be eligible to take the National Certifying Examination for Medical Laboratory Technician Associate Degree, a student must, in addition to satisfying degree requirements, comply with the minimum standards prescribed by the American Society of Clinical Pathologists. Students are required to be covered by professional liability insurance.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Interview with liaison counselor.
3. Interview with MLT faculty member.
4. Fulfill all requirements for admission to the Medical Laboratory Technician Program.
5. High school courses in biology and chemistry strongly recommended.

MEDICAL TRANSCRIPTION

(Nine-Month Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BIO 123—Applied Anatomy and Physiology	3	2	4
OFC 172—Beginning Typing or	2	3	3
*OFC 174—Intermediate Typing	1	2	(2)
MA 150—Orientation to Medical Office Careers	1	0	1
MA 151—Medical Terminology	4	0	4
MA 152—Medical Law and Ethics	2	0	2
Oral or Written Communications	3	0	3
SPRING SEMESTER			
OFC 162—Office Procedures	3	0	3
OFC 174—Intermediate Typing or OFC 273—Advanced Typing	1	2	2
*MA 160—Medical Transcription	2	6	4
MA 161—Medical Office Administrative and Management Procedures	3	0	3
Oral or Written Communications	3	0	3
Total			31-32

* If typing skills can be demonstrated with a minimum of 50 corrected wpm, OFC 174 will not be required. A typing skill of 35 wpm must be attained before enrollment in MA 160.

GENERAL INFORMATION AND OBJECTIVES

This one-year certificate program prepares the student to function as a medical typist and/or medical transcriptionist. Job opportunities are available in physician's offices, hospitals, and clinics, the health insurance industry; public or private health foundations and institutions; medical schools and research centers.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Conference with counselor and program coordinator.

PATTERN DESIGN

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DES 128—Introduction to Mass Production and Apparel (1st 8 Weeks)	4	0	2
DES 129—Industrial Garment Construction (1st 8 Weeks)	0	6	1
DES 234—History of Costume	3	0	3
DES 110—Basic Color Theory and Application	2	4	3
PDD 151—Pattern Drafting I (2nd 8 Weeks)	4	8	3
SPRING SEMESTER I			
DES 135—Textiles	2	2	3
DES 136—Fashion Sketching	2	4	3
DES 235—History of Costume	3	0	3
PDD 152—Pattern Drafting II (1st 8 Weeks)	4	8	3
PDD 153—Pattern Drafting III (2nd 8 Weeks)	4	8	3
FALL SEMESTER II			
DES 229—Advanced Garment Construction	2	3	3
PDD 254—Pattern Drafting IV (1st 8 Weeks)	4	8	3
PDD 255—Pattern Drafting V (2nd 8 Weeks)	4	8	3
SPRING SEMESTER II			
PDD 256—Pattern Drafting VI (1st 8 Weeks)	4	8	3
PDD 257—Pattern Drafting VII (2nd 8 Weeks)	4	8	3
DES 141—Grading or	0	2	1
PDD 812—Cooperative Work Experience	1	10	2
PDD 813—Cooperative Work Experience	1	15	3
PDD 814—Cooperative Work Experience	1	20	4
REQUIRED SUPPORT COURSES			
COM 131 and COM 132—Applied Composition and Speech or ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature			6
PSY 105—Introduction to Psychology or HD 105—Basic Processes of Interpersonal Relationships			3
American History, American Government			6
HUM 101—Introduction to Humanities			3
Total			62-64

GENERAL INFORMATION AND OBJECTIVES

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. The following courses are sometimes offered in the evening:
DES 135, DES 136.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Contact the Humanities Division for a Design Institute Information Form and for the schedule showing when indicator tests are given.

POLICE SCIENCE

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
POL 134—Criminal Evidence and Procedure	3	0	3
POL 137—Police Community Relations	3	0	3
POL 140—Introduction to Law Enforcement	3	0	3
POL 141—Police Organization and Administration	3	0	3
POL 142—Legal Aspects of Law Enforcement	3	0	3
POL 240—Criminal Investigation	3	0	3
POL 241—Police Role in Crime and Delinquency	3	0	3
REQUIRED SUPPORT COURSES			
*ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature or COM 131, 132—Applied Composition and Speech			6
HST 101, 102—History of the United States Government			6
PSY 105—Introduction to Psychology			3
SOC 101—Introduction to Sociology or SOC 102—Social Problems			3
‡Electives			18
Total			60

* Recommended for students transferring into a BS or BA degree plan.

‡ If you plan to transfer to a bachelor of science degree program in criminal justice, you should check the four-year college or university catalog to determine elective courses you should take. If you plan to terminate your formal education with the associate degree (60 hours) it is recommended that you select at least three courses from the following list:

RECOMMENDED ELECTIVES:

POL 146—Patrol Administration
POL 233—Introduction to Criminalistics
POL 242—Juvenile Procedures
POL 243—Probation and Parole
POL 244—Traffic Planning and Administration
POL 245—Traffic Law
POL 246—Penology
POL 143—Practical Spanish for Public Service Personnel
POL 144—Practical Spanish for Public Service Personnel
HD 105—Basic Processes of Interpersonal Relationships

GENERAL INFORMATION AND OBJECTIVES

The curriculum of this program is designed for those with law enforcement backgrounds as well as for recent high school graduates interested in preparing for an essential field of employment. Courses are offered in both day and evening college.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Those who are not currently in law enforcement should confer with police science liaison counselor.

RADIOGRAPHY TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

FALL ADMISSION

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
RAD 150—Introduction to Radiography Technology	2	2	3
RAD 152—Radiographic Procedures I	3	2	4
RAD 154—Radiographic Exposure and Physics I	2	2	3
RAD 156—Clinical Education I, Film Evaluation	0	16	2
SPRING SEMESTER I			
RAD 160—Radiographic Procedures II	3	2	4
RAD 162—Radiographic Exposure and Physics II	2	2	3
RAD 164—Clinical Education II, Film Evaluation	0	24	3
SUMMER SESSION			
RAD 170—Radiographic Procedures III	1	1	1
RAD 172—Radiographic Exposure III	1	1	1
RAD 174—Radiographic Physics III	1	1	1
RAD 176—Clinical Education III, Film Evaluation	0	32	4
FALL SEMESTER II			
RAD 250—Radiographic Exposure IV	1	1	1
RAD 252—Radiographic Procedures IV	1	1	1
RAD 254—Special Procedures	1	1	1
RAD 256—Clinical Education IV, Film Evaluation	0	24	3
SPRING SEMESTER II			
RAD 260—Imaging and Pathology	2	0	2
RAD 262—Radiation Biology and Radiation Protection	2	2	3
RAD 264—Clinical Education V, Film Evaluation	0	32	4
SUMMER SESSION			
RAD 270—Departmental Administration	2	0	2
RAD 272—Seminar	1	3	3
RAD 274—Clinical Education VI, Film Evaluation	0	32	4
REQUIRED SUPPORT COURSES			
Communications or English			6
BIO 120, 121—Human Anatomy and Physiology			8
MTH 139—Applied Mathematics or any 100 or above Math			3
PSY 207—Social Psychology			3
PSY 105—Introduction to Psychology			3
Total			76

RADIOGRAPHY TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

SUMMER ADMISSION

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
SUMMER SEMESTER (12 Weeks)			
RAD 150—Introduction to Radiologic Technology (Sum. I)	2	2	3
RAD 152—Radiographic Procedures I (Sum I & II)	3	2	4
RAD 154—Radiographic Exposure and Physics I (Sum. II)	2	2	3
RAD 156—Clinical Education I, Film Evaluation (Sum. I & II)	0	16	2
FALL SEMESTER I			
RAD 160—Radiographic Procedures II	3	2	4
RAD 162—Radiographic Exposure and Physics II	2	2	3
RAD 164—Clinical Education II, Film Evaluation	0	24	3
BIO 120—Anatomy and Physiology	3	3	4
PSY 105—Introduction to Psychology	3	0	3
SPRING SEMESTER I			
RAD 170—Radiographic Procedures III	1	1	1
RAD 172—Radiographic Exposure III	1	1	1
RAD 174—Radiographic Physics III	1	1	1
RAD 176—Clinical Education III, Film Evaluation	0	32	4
BIO 121—Anatomy and Physiology	3	3	4
PSY 207—Social Psychology	3	0	3
SUMMER SEMESTER (12 Weeks)			
RAD 250—Radiographic Exposure IV	1	1	1
RAD 252—Radiographic Procedures IV	1	1	1
RAD 254—Special Procedures	1	1	1
RAD 256—Clinical Education IV, Film Evaluation	0	24	3
FALL SEMESTER II			
RAD 260—Imaging and Pathology	2	0	2
RAD 262—Radiation Biology and Radiation Protection	2	2	3
RAD 264—Clinical Education V, Film Evaluation	0	32	4
COM 131—Applied Composition and Speech or ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER II			
RAD 270—Departmental (Management)	2	0	2
RAD 272—Seminar	1	3	3
RAD 274—Clinical Education VI, Film Evaluation	0	32	4
COM 132—Applied Composition and Speech or ENG 102—Composition and Literature	3	0	3
Total			70

Continued

GENERAL INFORMATION AND OBJECTIVES

This program is designed to prepare radiographers with understanding and skills in the field of diagnostic radiography. The student is assigned to several Dallas area hospitals for clinical education. Upon successful completion of the twenty-four month program, the student is awarded an associate in applied arts and sciences degree. In order to be certified by the College as prepared to write the American Registry of Radiologic Technologists Exam, a student must, in addition to satisfying degree requirements, comply with minimum standards for testing prescribed by the accrediting agency.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Take battery of tests.
3. High school courses in biology and math suggested.
4. Attend program orientation session.
5. Personal interview with program coordinator.
6. Submit high school and college transcripts.

RESPIRATORY THERAPY TECHNOLOGY

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
CHM 101—General Chemistry or CHM 115—General Chemistry	3	3	4
BIO 120—Human Anatomy and Physiology or BIO 221—Anatomy and Physiology I	3	3	4
RES 137—Basic Respiratory Therapy Skills 3and Procedures I	6	4	
RES 144—Pathology and Treatment Rationale I	2	0	2
ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER I			
CHM 102—General Chemistry or CHM 116—General Chemistry	3	3	4
BIO 121—Human Anatomy and Physiology or BIO 222—Anatomy and Physiology	3	3	4
RES 145—Basic Technology I	3	4	4
RES 147—Clinical Procedures II	0	8.8	2
RES 152—Pharmacology	2	0	2
SUMMER SESSION			
RES 150—Clinical Procedures III (6 Weeks)	0	16	2
RES 164—Basic Technology III (6 Weeks)	4	6	3
ENG 102—Composition and Literature (6 Weeks)	8	0	3
FALL SEMESTER II			
BIO 216—General Microbiology	3	4	4
RES 243—Advanced Technology and Instrumentation I	2	3	3
RES 257—Advanced Physiology and Pathology	3	0	3
RES 260—Clinical Procedures IV	0	16	4
RES 270—Ventilator Patient Management	2	0	2
SPRING SEMESTER II			
RES 246—Advanced Technology and Instrumentation II	2	3	3
RES 249—Seminar and Case Presentation	3	0	3
RES 256—Instructional and Management Methods	2	0	2
RES 261—Clinical Procedures V	0	16	4
RES 271—Pediatric Respiratory Therapy	2	0	2
SUMMER SESSION			
RES 262—Clinical Procedures VI (6 Weeks)	0	16	2
Total			73

Continued

GENERAL INFORMATION AND OBJECTIVES

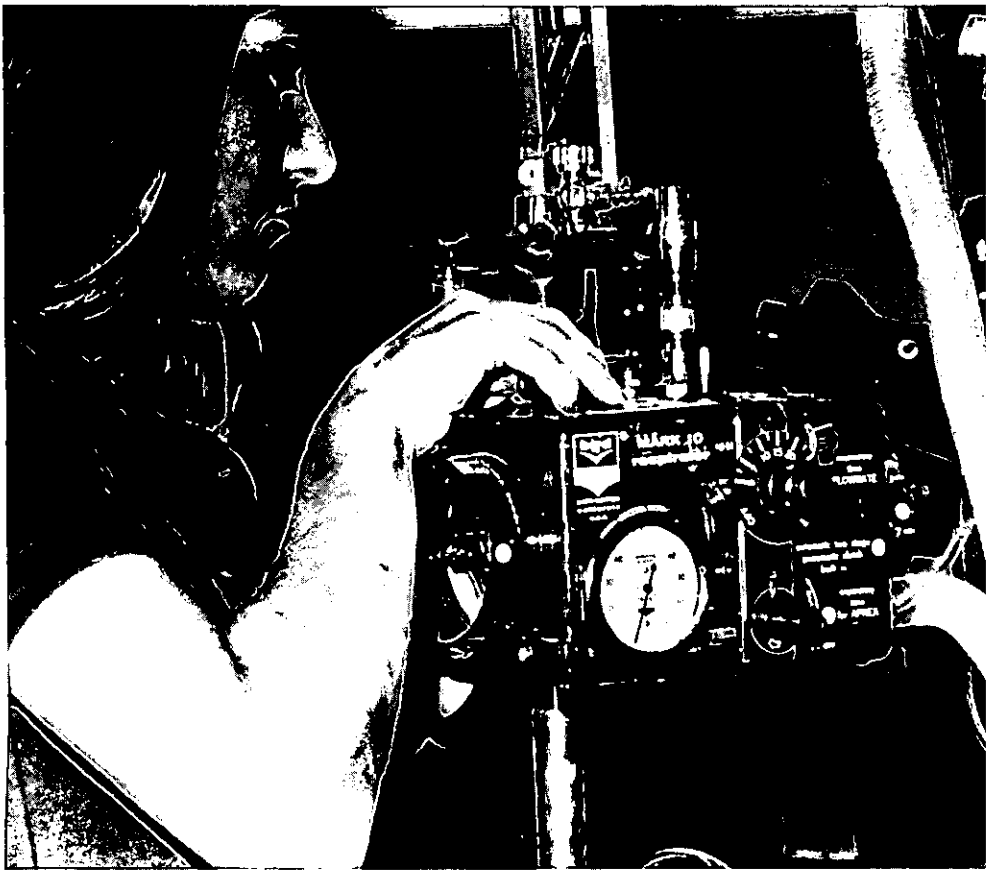
The associate degree program seeks to qualify the individual upon graduation to perform at a high level of competence in the areas of specialized patient care, technical expertise, administrative, and educational functions.

The program is accredited by the American Medical Association Council on Medical Education through the Joint Review Committee for Respiratory Therapy Education. Upon completion of the program, the student is awarded an associate in applied arts and sciences degree. In order to be certified by the College as eligible to write the American Registry Exam, a student must, in addition to satisfying degree requirements, comply with the minimum standards for testing prescribed by the above mentioned committee.

ADMISSION TO THE PROGRAM

1. High school diploma or GED.
2. Completion of testing including basic math and reading level.
3. Completion of interviews with liaison counselor and program instructors.
4. Completion of "Requirements for Admission" to El Centro College.
5. Completion of math prerequisite for CHM 101 or 115.
6. Students are required to be covered by professional liability insurance.

Equivalency testing for advanced standing is available.
Written requests should be submitted well in advance of enrollment date.



RESPIRATORY THERAPY TECHNICIAN

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
PSC 118—Physical Science	3	2	4
BIO 123—Applied Anatomy and Physiology or BIO 120 and BIO 121—Introduction to Human Anatomy and Physiology	3	3	4
RES 137—Basic Respiratory Therapy Skills and Practice I	3	6	4
RES 144—Pathology and Treatment Skills and Practice I	2	0	2
SPRING SEMESTER			
RES 138—Clinical Practice II	0	16	4
RES 141—Medications	2	0	2
RES 145—Basic Technology I	3	4	4
RES 149—Pathology and Treatment Rationale II	2	0	2
COM 131—Applied Composition and Speech	3	0	3
SUMMER SESSION I			
RES 160—Clinical Practice III (6 Weeks)	0	24	3
RES 164—Basic Technology II (6 Weeks)	4	6	3
SUMMER SESSION II			
RES 162—Clinical Practice IV (6 Weeks)	0	32	4
Total			39

GENERAL INFORMATION AND OBJECTIVES

The Respiratory Therapy Technician Program seeks to provide the training necessary to qualify individuals for entrance into the field of skilled in-patient care and technical and therapeutic procedures. For individuals already working in the field, the program serves to broaden and deepen technical and background knowledge and upgrade technical and therapeutic skills.

The program has been designed to conform to the "Essentials for an Approved Educational Program for the Respiratory Therapy Technician" approved by the American Medical Association Council on Medical Education and has been fully accredited by the Joint Review Committee for Respiratory Therapy Education, accrediting designate of the AMA-CME. Upon completion of the program, the student is awarded a certificate. In order to be certified by the College as eligible to write the National Technician Certification Exam administered by the NBRT, a student must, in addition to satisfying certificate requirements, comply with the minimum standards for testing as required by the accrediting agency.

ADMISSION TO THE PROGRAM

1. High school diploma or GED.
2. Completion of testing including basic math and reading level.
3. Completion of interviews with liaison counselor and program instructors.
4. Completion of "Requirements for Admission" to El Centro College.
5. Students are required to be covered by professional liability insurance.

Equivalency testing for advanced standing is available.
Written requests should be submitted well in advance of enrollment date.

SCHOOL FOOD SERVICE

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FIRST YEAR			
FS 119—Food Service Equipment	3	0	3
FS 120—Basic Food Preparation	2	4	3
FS 122—Advanced Food Preparation	2	4	3
FS 124—Food Service Sanitation and Safety	3	0	3
FS 132—Food Purchasing, Handling, and Storage	3	0	3
FS 135—Nutrition and Menu Planning	3	0	3
FS 136—Supervisory Techniques for Food Service	3	0	3
FS 138—Food Service Cost Control	3	0	3
SECOND YEAR			
FS 220—Quantity Food Preparation and Service	3	5	4
FS 222—Advanced Quantity Food Preparation and Service	3	5	4
FS 237—Organization and Management	3	0	3
FS 242—Community Nutrition	3	3	4
FS 244—Child Nutrition	3	3	4
FS 804—Cooperative Work Experience	1	20	4
FS 814—Cooperative Work Experience	1	20	4
REQUIRED SUPPORT COURSES			
COM 131 and 132—Applied Composition and Speech or ENG 101—Composition and Expository Reading and ENG 102—Composition and Literature			6
HST 101 and 102—History of the United States or GVT 201 and 202—American Government			6
HD 105—Basic Processes in Interpersonal Relationships or HD 107—Developing Leadership Behavior or PSY 105—Introduction to Psychology or SOC 101—Introduction to Sociology			3
MTH 130—Business Mathematics			3
Total			69

A "C" (2.0) average is required in major field—all food service courses.

Before completing this program, the student will be required to work a minimum to 640 hours in an approved work station in a school food facility. A weekly seminar enables the student to discuss his or her work experiences in a classroom setting.

GENERAL INFORMATION AND OBJECTIVES

The School Food Service Program trains men and women to assume responsible positions in the management of school food service facilities in the public or private sector. Courses in food management, nutrition, basic, and quantity food preparation are the core of this curriculum. Afternoon and evening courses are offered during the regular academic semesters. During the months of June, July, and August accelerated courses are scheduled for those who desire to participate.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

SCHOOL FOOD SERVICE

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FS 119—Food Service Equipment	3	0	3
FS 120—Basic Food Preparation	2	4	3
FS 122—Advanced Food Preparation	2	4	3
FS 124—Food Service Sanitation and Safety	3	0	3
FS 135—Nutrition and Menu Planning	3	0	3
FS 136—Supervisory Techniques for Food Service	3	0	3
FS 138—Food Service Cost Control	3	0	3
FS 237—Organization and Management	3	0	3
FS 242—Nutrition Care I	3	3	4
HD 105—Basic Processes of Interpersonal Relationships	3	0	3
Total			31

GENERAL INFORMATION AND OBJECTIVES

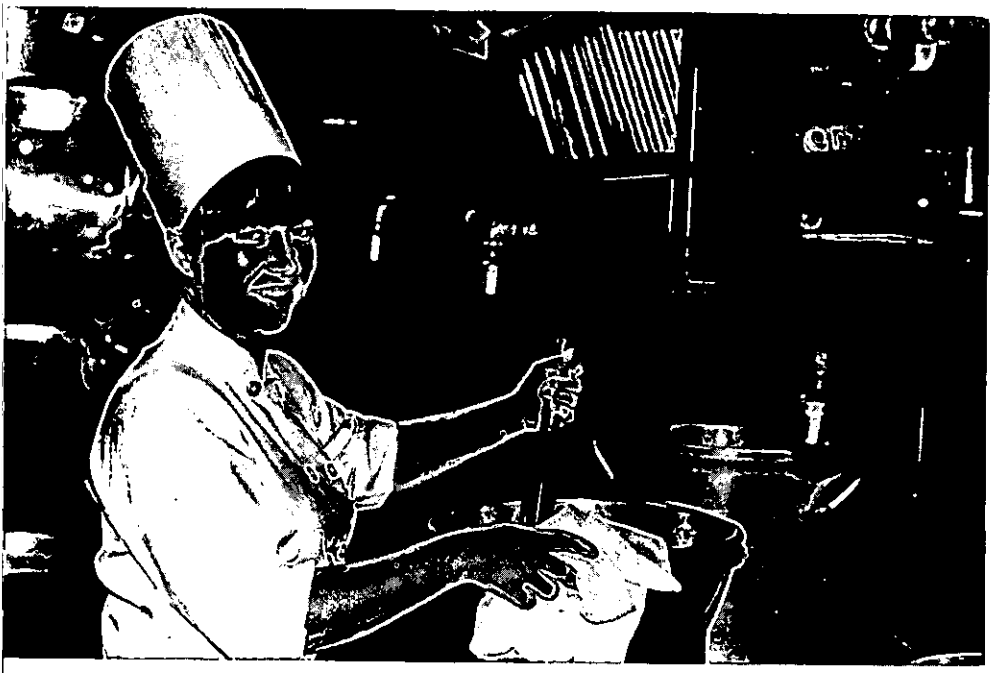
This 31 credit hour certificate program prepares the student to function as a school food service worker and advance to school cafeteria manager. All credits earned in this program may be applied towards the associate degree in School Food Service.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

CERTIFICATION

Upon completion of this program, the student will be awarded a certificate of completion by Texas School Food Service Association and a certificate of completion by El Centro College.



SECRETARIAL CAREERS—
GENERAL SECRETARY

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
BUS 105—Introduction to Business	3	0	3
OFC 160—Office Machines	3	0	3
*OFC 172—Beginning Typing or	2	3	3
OFC 174—Intermediate Typing	1	2	(2)
OFC 159—Beginning Shorthand or	3	2	4
OFC 166—Intermediate Shorthand	3	2	(4)
COM 131—Applied Composition and Speech or			
ENG 101—Composition and Expository Reading	3	0	3
MTH 130—Business Mathematics	3	0	3
SPRING SEMESTER			
*OFC 174—Intermediate Typing or			
OFC 273—Advanced Typing	1	2	2
OFC 166—Intermediate Shorthand or			
OFC 266—Advanced Shorthand	3	2	4
OFC 162—Office Procedures	3	0	3
ACC 131—Bookkeeping I or			
ACC 201—Principles of Accounting I	3	0	3
OFC 165—Introduction to Word Processing	3	0	3
OFC 231—Business Communications	3	0	3
Total			36-37

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

GENERAL INFORMATION AND OBJECTIVES

This program is designed for those who desire to enter the business world as soon as possible in the stenographic field. Intensive training is provided in basic office skills and acquaints the students with the opportunities and responsibilities of a secretarial career. Courses are available in both the day and evening college.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

SECRETARIAL CAREERS—
PROFESSIONAL SECRETARY

(Associate Degree in Applied Arts and Sciences)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
BUS 105—Introduction to Business	3	0	3
MTH 130—Business Mathematics	3	0	3
*OFC 172—Beginning Typing or	2	3	3
OFC 174—Intermediate Typing	1	2	(2)
*OFC 159—Beginning Shorthand or			
OFC 166—Intermediate Shorthand	3	2	4
COM 131—Applied Composition and Speech or			
ENG 101—Composition and Expository Reading	3	0	3
SPRING SEMESTER I			
*OFC 174—Intermediate Typing or			
OFC 273—Advanced Typing	1	2	2
*OFC 166—Intermediate Shorthand or			
OFC 266—Advanced Shorthand	3	2	4
ACC 131—Bookkeeping I or			
ACC 201—Principles of Accounting I	3	0	3
OFC 162—Office Procedures	3	0	3
OFC 160—Office Machines	3	0	3
FALL SEMESTER II			
†OFC 266—Advanced Shorthand (if necessary)	3	2	4
†OFC 273—Advanced Typing (if necessary)	1	2	2
OFC 165—Introduction to Word Processing	3	0	3
CS 175—Introduction to Computer Science or			
BUS 234—Business Law	3	0	3
COM 132—Applied Composition and Speech or			
ENG 102—Composition and Literature	3	0	3
HUM 101, ART 104, MUS 104 or THE 101	3	0	3
Electives or OFC 803 or			
OFC 804—Cooperative Work Experience	1	15-20	3-4
SPRING SEMESTER II			
OFC 265—Word Processing Practices and Procedures	3	0	3
OFC 275—Secretarial Procedures	3	0	3
OFC 231—Business Communications	3	0	3
PSY 131—Human Relations	3	0	3
Electives or OFC 813 or			
OFC 814—Cooperative Work Experience	1	15-20	3-4
	Total		64-67†

Continued

RECOMMENDED ELECTIVES:

DP 129—Data Entry Concepts
MGT 136—Principles of Management
BUS 143—Personal Finance
OFC 803—Cooperative Work Experience
OFC 804—Cooperative Work Experience
OFC 813—Cooperative Work Experience
OFC 814—Cooperative Work Experience
PSY 105—Introduction to Psychology
SPE 105—Fundamentals of Public Speaking
BUS 237—Organizational Behavior
ECO 201—Principles of Economics
OFC 143—Contemporary Topics in Office Careers

* Students will be placed in typing and shorthand courses on a proficiency level determined by previous training, experience, and/or placement tests.

†Total number of hours must equal 64-67 for graduation.

CREDIT GIVEN FOR CPS RATING

Credit toward an associate degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

ACC 131—Bookkeeping I	3
OFC 159—Beginning Shorthand	4
OFC 162—Office Procedures	3
OFC 166—Intermediate Shorthand	4
OFC 172—Beginning Typing	3
OFC 174—Intermediate Typing	2
OFC 231—Business Communications	3
BUS 234—Business Law	3
OFC 275—Secretarial Procedures	3
PSY 131—Human Relations	3
Total	31

In order to receive credit, the applicant must:

1. Request direct notification be given to the registrar of the College by the Institute for Certifying Secretaries that the applicant has passed all sections of the exam.
2. Have earned 12 hours credit for courses at El Centro College before the advanced standing credit is posted on the applicant's record.

GENERAL INFORMATION AND OBJECTIVES

The purpose of this program is to prepare students to become alert and responsible secretaries capable of performing the tasks required of them in the modern business office. The program is designed to provide a high level of proficiency in typing, shorthand, office machines, and other secretarial techniques, as well as a general educational background. Emphasis is also placed on the development of logical thought, human relations, business etiquette and business ethics. Courses are available in both the day and evening college.

ADMISSION TO THE PROGRAM

Fulfill all requirements for admission to El Centro College.

SURGICAL TECHNOLOGY

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
ENG 101—Composition and Expository Reading or COM 131—Applied Composition and Speech	3	0	3
BIO 123—Applied Anatomy and Physiology or	3	2	4
BIO 120—Introduction to Human Anatomy and Physiology and	3	2	4
BIO 121—Introduction to Human Anatomy and Physiology	3	2	4
SGT 140—Medical Terminology	2	0	2
SGT 141—Operating Room Techniques	6	10	8
SPRING SEMESTER			
HD 105—Basic Processes of Interpersonal Relationships or HD 106—Personal and Social Growth	3	0	3
SGT 152—Operating Room Procedures	4	20	8
SUMMER SESSION (10 Weeks)			
SGT 153—Clinical Practice	0	35	7
SGT 154—Seminar	2	0	2
Total			38-41

GENERAL INFORMATION AND OBJECTIVES

The Surgical Technology Program trains a person to provide services in the operating room under the supervision and responsibility of the operating room supervisor. The technologist, as part of the operating room team, aids in providing for the safety, cleanliness, and efficiency necessary for good patient care in the operating room. The surgical technologist prepares materials for use at the operating room table and assists in the use of these materials in a variety of operative procedures. Summer session is ten weeks in length. Students are required to be covered by professional liability insurance.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College.
2. Conference with liaison counselor for the Surgical Technology Program.

SURGICAL TECHNOLOGY
OPTION FOR GRADUATE REGISTERED NURSES

(One-Year Certificate Program)

REQUIRED COURSES	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER			
SGT 140—Medical Terminology	2	0	2
SGT 141—Operating Room Technique	6	10	8
SPRING SEMESTER			
HD 105—Basic Processes of Interpersonal Relationships	3	0	3
SGT 160—Operating Room Procedures for Registered Nurses	4	20	8
Total			21

GENERAL INFORMATION AND OBJECTIVES

This option teaches the registered nurse to provide safety, cleanliness and efficiency necessary for good patient care in the operating room. Basic principles of asepsis, preparation and care of surgical supplies and ethical-legal aspects are taught, as well as perioperative role responsibilities of the registered nurse.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission to El Centro College and the Surgical Technology Program.
2. Conference with liaison counselor for the Surgical Technology Program.
3. Current licensure by the Texas State Board of Nurse Examiners, or a graduate of an R.N. program.

VOCATIONAL NURSING

(One-Year Certificate Program)

REQUIRED COURSES	CONTACT HRS.	CR. HRS.
*SPRING SEMESTER		
VN 130—Anatomy and Physiology	50	3
VN 131—Pharmacology	52	3
VN 132—Nutrition	32	2
VN 133—Geriatrics	12	1
VN 134—Professional Vocational Adjustment	18	1
VN 135—Mental Health and Mental Illness	34	2
VN 136—Microbiology	18	1
VN 137—Nursing Skills	299	7
VN 138—Introduction to Maternity Nursing	15	1
SUMMER SESSION		
VN 139—Maternity and Newborn	38	2
VN 140—Pediatrics	34	2
VN 141—Clinical Experience	509	8
‡ FALL SEMESTER		
VN 142—Medical Surgical Nursing	100	6
VN 143—Clinical Experience	462	9
Total		48

* American Red Cross-First Aid required during spring semester, 15 clock hours.
‡ American Red Cross-Disaster Nursing included during fall semester, 12 clock hours.

GENERAL INFORMATION AND OBJECTIVES

This is a one-year program which meets the accreditation requirements of the State Board of Licenses Vocational Nurse Examiners. In addition to classroom and laboratory work at the college, clinical experience at various hospitals is part of the program. This course is offered only during the day.

ADMISSION TO THE PROGRAM

1. Fulfill all requirements for admission as a full-time student to El Centro College.
2. Complete an application sheet to the Vocational Nursing program in addition to the application to El Centro.
3. Contact liaison counselor to the Vocational Nursing program for additional information.

Mountain View College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING ASSOCIATE

(Associate Degree of Applied Arts and Sciences)

This two-year program is designed for persons interested in pursuing careers as junior accountants in business, industry, and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles and tax accounting.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
ACC 201	Principles of Accounting I	3		48	3
ACC 202	Principles of Accounting II	3		48	3
ACC 203	Intermediate Accounting	3		48	3
ACC 204	Managerial Accounting	3		48	3
BUS 105	Introduction of Management	3		48	3
MGT 136	Principles of Management	3		48	3
OFC 160	Office Machines	3		48	3
OFC 172	Beginning Typing	2	3	80	3
OFC 231	Business Communications	3		48	3
BUS 234	Business Law	3		48	3
ACC 238	Cost Accounting	3		48	3
					33
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
or					
ENG 101	Composition & Expository Reading				
COM 132	Applied Composition and Speech	3		48	3
or					
ENG 102	Composition and Literature				
CS 175	Introduction to Computing Science	3		48	3
ECO 201	Principles of Economics I	3		48	3
ECO 202	Principles of Economics II	3		48	3
GOV 201	American Government	3		48	3
MTH 130	Business Mathematics	3		48	3
or					
MTH 111	Mathematics for Business				
					21

Plus any additional 6 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES:					
BUS 143	Personal Finance	3		48	3
ACC 205	Business Finance	3		48	3
MGT 206	Principles of Marketing	3		48	3
ACC 239	Income Tax Accounting	3		48	3
PSY 105	Introduction to Psychology	3		48	3
PSY 131	Human Relations	3		48	3
ACC 803	Cooperative Work Experience	1	15	256	3
ACC 804	Cooperative Work Experience	1	20	336	4

Those students who plan to continue their education in Accounting Associate in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

ACCOUNTING TECHNICIAN

(One-Year Certificate)

The objective of this program is to provide the student with a working knowledge of bookkeeping procedures currently in use in business; to introduce the student to accounting principles supporting bookkeeping procedures; and to give the student practical bookkeeping experience by the use of problem solving.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 131	Bookkeeping I	3		48	3
ACC 132	Bookkeeping II	3		48	3
OFC 160	Office Machines	3		48	3
OFC 172	Beginning Typing	2	3	80	3
or					
OFC 174	Intermediate Typing	(1)	(2)	(48)	(2)
					15
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
COM 132	Applied Composition and Speech	3		48	3
CS 175	Introduction to Computing Science	3		48	3
MTH 130	Business Mathematics	3		48	3
					12

Plus any additional 3 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES:					
OFC 162	Office Procedures	3		48	3
OFC 231	Business Communications	3		48	3
BUS 234	Business Law	3		48	3
PSY 131	Human Relations	3		48	3

AVIATION MAINTENANCE TECHNOLOGY

(Associate Degree of Applied Arts & Sciences)

This program is designed to provide a technical course of study which prepares the student for a career in aircraft maintenance. Such maintenance includes service, repair, and overhaul of aircraft, aircraft engines and aircraft accessory systems. Upon completion of the program, the student is eligible to take the Federal Aviation Administration examinations for the Airframe and Powerplant Maintenance Technician School.

Training is provided by Mountain View College in cooperation with Braniff Education Systems, Inc. Braniff holds Air Agency Certificate 202-58 issued by the Federal Aviation Administration, and certifies approval as an aviation maintenance technician school.

Mountain View College will issue a Certificate of Completion when the Required Core courses and either the Powerplant curriculum courses OR the Airframe Curriculum courses are completed. If the Required Core courses, Powerplant AND Airframe Curriculum courses are completed, the student is qualified to receive an Associate of Applied Arts and Sciences degree in Aviation Maintenance Technology.

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
*APM 100	Aircraft Basic Science	86	64	150	5
*APM 101	Applied Aircraft Science	78	72	150	5
*APM 102	Basic Electricity	82	68	150	5
COM 131	Applied Composition and Speech				
or					
ENG 101	Composition & Expository Reading	3		48	3
					18
AIRFRAME OPTION					
*APM 200	Airframe Structures	58	92	150	5
*APM 201	Sheet Metal Structures	28	122	150	5
*APM 202	Hydraulics and Landing Gear	52	98	150	5
*APM 203	Airframe Electrical Systems	68	82	150	5
*APM 204	Utility Systems	72	78	150	5
*APM 205	Inspection and Review	72	78	150	5
PSY 131	Human Relations	3		48	3
					33
POWERPLANT OPTION					
*APM 220	Reciprocating Engines	69	81	150	5
*APM 221	Gas Turbine Powerplants	90	60	150	5
APM 222	Powerplant Electrical Systems	58	92	150	5
APM 223	Powerplant Accessory Systems	58	92	150	5
APM 224	Fuel Metering and Troubleshooting	62	88	150	5
*APM 225	Powerplant Review and Inspection	72	78	150	5
SS 131	American Civilization				
or					
HST 101	History of the United States	3		48	3
					33

AVIATION TECHNOLOGY

(Associate Degree of Applied Arts and Sciences)

OPTIONS

Career Pilot
Air Cargo Transport
Airline Marketing
Fixed Base Operations/Airport Management
Aircraft Dispatcher
Air Traffic Control

(Aircraft Dispatcher, One-Year Certificate Program)

Aviation Technology is designed to allow students to take a core of basic courses and then choose the fields they wish to enter. The degree options are Career Pilot (including Flight Instructor Certificate, Multi-Engine Ratings, Flight Engineer and Air Transport Pilot Ground School), Air Cargo Transport, Airline Marketing, Fixed Base Operations/Airport Management, Aircraft Dispatcher and Air Traffic Control.

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 Regulations, and thus, are subject to change to conform to such regulations. Admission to this program is by application to the Chief Flight Instructor and should be approved prior to registration and payment of tuition and fees. The student should recognize that simulator fees, flight fees and fees for pre-and post-flight briefing are in addition to the regular tuition charge.

Air Cargo Transport, Airline Marketing and Fixed Base Operations/Airport Management programs are designed for students desiring entry into managerial roles in the aviation industry. After completing courses in the common course curriculum students will select an option for additional study.

The Aircraft Dispatcher Program contains both the One-Year Certificate and the Associate Degree of Applied Arts and Sciences. Entry into either program will be in accordance with F.A.A. regulations. Upon completion of the courses in the desired program students will be prepared to apply to take the F.A.A. written exam for Aircraft Dispatcher. Students interested in admission to the Air Traffic Control Degree Program must have completed 15 credit hours prior to enrollment into the Air Traffic Control specialized courses. It is recommended that the 15 credit hours be selected from AVT 121, AVT 135, AVT 137, AVT 210, AVT 226 and AVT 221 in order that the student can be better prepared to meet the following eligibility requirements established by the F.A.A.:

1. Be a U.S. citizen
2. Be in attendance at a participating college and must be a full-time student
3. Be enrolled in the Co-op program of the college
4. Be between the ages of 16 and 28
5. Meet overall scholastic average required by college (not lower than 2.0 GPA based on a 4.0 scale)
6. Not be a son or daughter of an F.A.A. employee
7. Have at least 15 semester hours of college credit toward a degree
8. Successfully complete a written Air Traffic entrance exam, interview, medical exam, suitability investigation and security investigation

Continued

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
AVT 110	Introduction to Aviation	3		48	3
AVT 121	Private Pilot Ground School	3		48	3
AVT 122	Aviation Law	3		48	3
AVT 210	FAA Regulations, Airspace & Air Traffic Control Services	3	4 +	52	3
AVT 212	Airport Management	3		48	3
**AVT 226	Meteorology	3		48	3
ENG 101	Composition & Expository Reading	3		48	3
SPE 105	Fundamentals of Public Speaking	3		48	3
MTH 101	College Algebra	3		48	3
or					
MTH 195	Technical Mathematics				
or					
MTH 130	Business Mathematics				
PSY 131	Human Relations	3		48	3
*AV 129	Introduction to Aircraft Electronic Systems	2	2	64	3
					33

*Not required for Air Cargo or Marketing Options
**Not required for Airline Marketing Option
+ 4 hours in the Synthetic Flight Trainer per semester

CAREER PILOT OPTION		LEC.	LAB	FLT. HRS.	CONT. HRS.	CR HRS
AVT 128	Aero Engines & Systems	3			48	3
AVT 123	Ground School Commercial	3			48	3
AVT 220	Aero Dynamics	3			48	3
AVT 221	Advanced Navigation	2	2		64	3
AVT 224	Ground School Instrument	3			48	3
AVT 135	Flight Basic		9	25	34	2
AVT 137	Flight Private Pilot		4	20	24	1
AVT 227	Flight Commercial I		8	30	38	2
AVT 228	Flight Commercial II		8	46	54	3
AVT 229	Flight Commercial III		4	46	50	3
AVT 230	Flight Commercial IV — Instrument		26	20	46	3
						29

Continued

ADDITIONAL OPTIONS FOR CAREER PILOT

FLIGHT INSTRUCTOR CERTIFICATE:

AVT 250	Flight Instructor - Ground School	2			32	2
AVT 252	Instrument Flight Instructor Ground School	3			48	3
AVT 251	Flight Instructor - Airplane (Single or Multi-engine)		10	30	40	2
AVT 253	Flight Instructor - Airplane Instrument		10	10	20	1

MULTI-ENGINE RATING:

AVT 254	Flight Advanced I		6	10	16	1

FLIGHT ENGINEER

AVT 263	Flight Engineer-Ground School	3			48	3

AIR TRANSPORT PILOT

AVT 264	Air Transport Pilot Ground School	3			48	3

AIR CARGO TRANSPORT OPTION		LEC.	LAB	FLT. HRS.	CONT. HRS.	CR HRS
AVT 222	Transportation, Traffic & Air Cargo	3			48	3
AVT 223	Airline Management	3			48	3
AVT 225	Aviation Marketing	3			48	3
AVT 248	Air Transportation	3			48	3
BUS 105	Introduction to Business	3			48	3
ACC 201	Principles of Accounting I	3			48	3
ECO 201	Principles of Economics I	3			48	3
CS 175	Introduction to Computing Science	3			48	3
AVT 703	Cooperative Work Experience	1	15		256	3
						27

RECOMMENDED ELECTIVES:

MGT 136	Principles of Management	3			48	3
ACC 202	Principles of Accounting II	3			48	3
BUS 234	Business Law	3			48	3
ECO 202	Principles of Economics II	3			48	3

AIRLINE MARKETING OPTION

AVT 222	Transportation, Traffic & Air Cargo	3			48	3
AVT 223	Airline Management	3			48	3
AVT 225	Aviation Marketing	3			48	3
AVT 248	Air Transportation	3			48	3
BUS 105	Introduction to Business	3			48	3
ACC 201	Principles of Accounting I	3			48	3
MGT 230	Salesmanship	3			48	3
or						
MGT 233	Advertising and Sales Promotion					
ECO 201	Principles of Economics I	3			48	3
AVT 703	Cooperative Work Experience	1	15		256	3
or	Elective					
						27

Continued

RECOMMENDED ELECTIVES:

ACC 202	Principles of Accounting II	3		48	3
MGT 206	Principles of Marketing	3		48	3
BUS 234	Business Law	3		48	3
ECO 202	Principles of Economics II	3		48	3

FIXED-BASE OPERATIONS/AIRPORT MANAGEMENT OPTION		LEC.	LAB	CONT. HRS.	CR. HRS.
AVT 222	Transportation, Traffic & Air Cargo	3		48	3
AVT 223	Airline Management	3		48	3
AVT 248	Air Transportation	3		48	3
BUS 105	Introduction to Business	3		48	3
ACC 201	Principles of Accounting I	3		48	3
ECO 201	Principles of Economics I	3		48	3
CS 175	Introduction to Computing Science	3		48	3
AVT 703	Cooperative Work Experience	1	15	256	3
or	Elective				
					24

RECOMMENDED ELECTIVES:

MGT 136	Principles of Management	3		48	3
ACC 202	Principles of Accounting II	3		48	3
BUS 234	Business Law	3		48	3
MGT 153	Small Business Management	3		48	3
ECO 202	Principles of Economics II	3		48	3

AIRCRAFT DISPATCHER (One-Year Certificate Program)		LEC.	LAB	CONT. HRS.	CR. HRS.
AVT 110	Introduction to Aviation	3		48	3
AVT 121	Private Pilot Ground School	3		48	3
AVT 122	Aviation Law	3		48	3
AVT 128	Aero Engines & Systems	3		48	3
AVT 210	FAA Regulations, Airspace and Air Traffic Control Services	3	4+	52	3
AVT 226	Meterology	3		48	3
AVT 123	Ground School Commercial	3		48	3
AVT 221	Advanced Navigation	2	2	64	3
AVT 224	Ground School Instrument	3		48	3
AVT 261	Aircraft Dispatcher	3		48	3
AVT 262	Practical Dispatching	3	10‡	58	3
					33

+ 4 hours in the Synthetic Flight Trainer per semester
‡ 10 hours in the Synthetic Flight Trainer per semester

RECOMMENDED ELECTIVE:

AVT 703	Cooperative Work Experience	1	15	256	3

AIRCRAFT DISPATCHER

(Associate in Applied Arts and Sciences)

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
AVT 110	Introduction to Aviation	3		48	3
AVT 121	Private Pilot Ground School	3		48	3
AVT 122	Aviation Law	3		48	3
AVT 128	Aero Engines and Systems	3		48	3
AVT 210	FAA Regulations, Airspace & Air Traffic Control Services	3	4+	52	3
AVT 226	Meteorology	3		48	3
AVT 123	Ground School Commercial	3		48	3
AVT 221	Advanced Navigation	2	2	64	3
AVT 224	Ground School Instrument	3		48	3
AVT 261	Aircraft Dispatcher	3		48	3
AVT 262	Practical Dispatching	3	10‡	58	3
					33

+ 4 hours in the Synthetic Flight Trainer per semester
‡10 hours in the Synthetic Flight Trainer per semester

REQUIRED SUPPORT COURSES					
CS 175	Computing Science	3		48	3
ENG 101	Composition & Expository Reading	3		48	3
SPE 105	Fundamentals of Public Speaking	3		48	3
MTH 195	Technical Mathematics	3		48	3
PSY 131	Human Relations	3		96	3
AV 129	Introduction to Aircraft Electronic Systems	2	2	64	3
MGT 136	Principles of Management	3		48	3
					21

Plus any additional 4 credit hours of recommended electives listed below:

RECOMMENDED ELECTIVES					
PEH 115	Physical Fitness		3	48	1
or					
PEH 125	Conditioning Exercise		3	48	1
or					
PEH 131	Weight Training and Conditioning		3	48	1
BUS 105	Introduction to Business	3		48	3
MTH 196	Technical Mathematics	3		48	3
AVT 703	Cooperative Education	1	15	256	3
or					
AVT 704	Cooperative Education	1	20	336	4

AIR TRAFFIC CONTROL

(Associate of Applied Arts and Sciences)

REQUIRED CORE COURSES		LEC.	LAB	FLT. HRS.	CONT. HRS.	CR HRS
AVT 121	Ground School Private	3			48	3
AVT 210	FAA Regulations, Airspace and Air Traffic Control	3	4 +		52	3
AVT 226	Meteorology	3			48	3
AVT 135	Flight Basic		9	25	34	2
AVT 137	Flight Private Pilot		4	20	24	1
AVT 221	Advanced Navigation	2	2		64	3
AVT 224	Ground School Instrument	3			48	3
AVT 270	Orientation to Air Traffic Control	5			80	5
AVT 272	Aircraft Types and Characteristics/ Air Traffic Control Communications	2			32	2
AVT 274	Air Traffic Control Computer Operations	3			48	3
AVT 704	Cooperative Work Experience	1	20		336	4
AVT 804	Cooperative Work Experience	1	20		336	4
AVT 814	Cooperative Work Experience	1	20		336	4
						40

+ 4 hours in the Synthetic Flight Trainer per semester

REQUIRED SUPPORT COURSES						
ENG 101	Composition and Expository Reading	3			48	3
ENG 102	Composition and Literature	3			48	3
SPE 105	Fundamentals of Public Speaking	3			48	3
MTH 195	Technical Mathematics	3			48	3
						12

Plus any additional 9 credit hours of recommended electives listed below:

RECOMMENDED ELECTIVES						
MGT 136	Principles of Management	3			48	3
MGT 242	Personnel Administration	3			48	3
AVT 212	Airport Management	3			48	3
AVT 223	Airline Management	3			48	3
PSY 131	Human Relations	3			48	3

AVIONICS TECHNOLOGY

(One-Year 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 instructional mode.

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
AV 129	Introduction to Aircraft Elec. Systems	2	2	64	3
AV 132	Materials, Tools and Installation Techniques and Practices	3	3	96	4
AV 235	Checkout, Troubleshooting and Related Test Apparatus	3	3	96	4
ET 135	D.C./A.C. Theory and Circuit Analysis	5	3	128	6
or					
ET 190	D.C. Circuits & Electrical Measurement				
and					
ET 191	A.C. Circuits				
ET 193	Active.Devices	3	3	96	4
REQUIRED SUPPORT COURSES:					
MTH 195	Technical Mathematics	3		48	3
PHY 118	Concepts in Physics	3	3	96	4
MGT 153	Small Business Management	3		48	3
COM 131	Applied Composition and Speech	3		48	3
					34
RECOMMENDED ELECTIVES:					
AV 803-813		1	15	256	3
AV 804-814		1	20	336	4

DATA PROCESSING PROGRAMMER

(Associate Degree in Applied Arts and Sciences)

This curriculum is intended for the preparation of students interested in systems work or other four-year degree programs. The curriculum includes many of the basic data processing courses as well as the basic requirements for four-year programs. There is a heavy emphasis on accounting. Students who plan to obtain baccalaureate degrees should determine what school they wish to transfer to and then seek the assistance of a counselor in planning their program to meet the requirements of the particular college to which they plan to transfer.

REQUIRED COURSES		LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I				
CS 175	Introduction to Computer Science	3	0	3
DP 139	Technician	2	4	3
DP 137	Data Processing Math or			
MTH 130	Business Mathematics	3	0	3
COM 131	Applied Composition and Speech or			
ENG 101	Composition and Expository Reading	3	0	3
ACC 131	Bookkeeping I or			
ACC 201	Principles of Accounting I	3	0	3
SPRING SEMESTER I				
DP 133	Beginning Programming (COBOL)	3	4	4
DP 138	Data Processing Logic	3	0	3
BUS 105	Introduction to Business	3	0	3
ACC 202	Principles of Accounting II	3	0	3
COM 132	Applied Composition and Speech or			
ENG 102	Composition and Literature	3	0	3
FALL SEMESTER II				
DP 136	Intermediate Programming (COBOL)	3	4	4
DP 131	RPG Programming or			
CS 176	FORTRAN Programming	2	2	3
DP or CS elective (any 200 level DP or CS course)				3-4
DP 233	Operating Systems & Communications	3	4	4
ACC 203	Intermediate Accounting or			
ACC 238	Cost Accounting	3	0	3
SPRING SEMESTER II				
DP 231	Advanced Programming (ALC)	3	4	4
DP 232	Applied Systems	3	4	4
Approved elective (listed below)				3-4
ECO 201	Principles of Economics	3	0	3
				62-64

Approved Electives:

DP 129	Data Entry Concepts
MGT 136	Principles of Management
MGT 206	Principles of Marketing
BUS 234	Business Law
BUS 237	Organizational Behavior
ECO 202	Principles of Economics II
MTH 202	Introductory Statistics
CS 176	FORTRAN Programming
CS 250	Cont. Topics in CS
CS 251	Special Topics in CS & DP
DP 236	Advanced COBOL Techniques
CS 240	Telecommunications I
DP	(Cooperative Work Experience) 702, 712, 802, 812, 703, 713, 803, 813, 704, 714, 804, 814



DRAFTING & DESIGN TECHNOLOGY

(Associate Degree of Applied Arts and Sciences)

This program prepares the student for employment in a wide range of industries as a draftsman or engineering aide. Information in related fields is provided to enable the student to work effectively with the engineer and professional staff. This program is also adapted to the Flexible Entry mode of registration which allows students to enroll the first Monday of October and November in the fall semester and the first Monday of February and March in the spring semester. Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
DFT 135	Reproduction Processes	1	3	64	2
DFT 183	Basic Drfating	2	6	128	4
DFT 184	Intermediate Drafting	2	4	96	3
DFT 230	Structural Drafting	2	4	96	3
DFT 231	Electronic Drafting	2	4	96	3
DFT 232	Technical Illustration	2	4	96	3
EGR 106	Descriptive Geometry	2	4	96	3
EGR 186	Manufacturing Processes	1	2	48	2
					23
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
COM 132	Applied Composition and Speech	3		48	3
MTH 195	Technical Mathematics	3		48	3
MTH 196	Technical Mathematics	3		48	3
PHY 131	Applied Physics	3	3	96	4
PSY 131	Human Relations	3		48	3
SS 131	American Civilization	3		48	3
SS 132	American Civilization	3		48	3
					25

Plus any additional 13 credit hours of recommended elective courses listed below.

RECOMMENDED ELECTIVES:

(These courses are offered on the basis of sufficient demand for them.)

DFT 136	Geological and Land Drafting	2	4	96	3
DFT 185	Architectural Drafting	2	6	128	4
DFT 233	Machine Design	2	6	128	4
DFT 234	Advanced Technical Illustration	2	6	128	4
DFT 235	Building Equipment	2	4	96	3
DFT 236	Piping and Pressure Vessel Design	2	4	96	3
DFT 813	Cooperative Work Experience	1	15	256	3
DFT 814	Cooperative Work Experience	1	20	336	4

Those students who plan to continue their education in Drafting in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

EDUCATIONAL PARAPROFESSIONAL

(Educational Assistant, One-Year Certificate Program)
(Educational Associate Degree of Applied Arts and Sciences, Two-Year Program)

This program is designed to prepare paraprofessionals to school personnel in a wide range of supportive duties common to educational processes. It is designed to enhance a student's understanding of the learning processes and stages of development. This program can also be adapted to Flexible Entry mode of registration which allows students to enroll the first Monday of October and November in the fall semester and the first Monday of February and March in the spring semester.

A student completing the following courses may receive an Educational Assistant Certificate:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
EP 131	Introduction to Educational Processes I	3		48	3
EP 129	Communications Skills for Educational Paraprofessionals	3		48	3
EP 134 and/or	Introduction to Media	2	2	64	3
EP 135	Arts and Crafts for Educational Paraprofessionals				
EP 133	Introduction to Educational Processes II	3		48	3

Plus any additional 15 hours of support courses as approved from the total educational paraprofessional program to complete a total of 30 semester hours.

A student wishing to receive an Educational Associate Degree for the Educational Paraprofessional may continue in the program and receive the Associate of Applied Arts and Sciences Degree by completing the following courses.

The EP core courses listed above plus:

EP 247	Diversified Studies	3		48	3
EP 804	Cooperative Work Experience	1	20	336	4

Continued

Plus any additional 27 hours of support courses as approved from the total Educational Paraprofessional program for a total of 64 semester hours for an Educational Associate Degree.

Cooperative Work Experience					4
Communications (may be chosen from the following):					12
Developmental Studies Reading and/or Writing					
COM 131	Applied Composition and Speech	3		48	
COM 132	Applied Composition and Speech	3		48	
ENG 101	Composition and Expository Reading	3		48	
ENG 102	Composition and Literature	3		48	
ENG 201	British Literature	3		48	
ENG 202	British Literature	3		48	
HD 105	Basic Processes of Interpersonal Relationships	3		48	3
DM 090 or 091 or Math Elective		3		48	3
OFC 172	Beginning Typing or Proficiency exam	2	3	80	3
OFC 160	Office Machines	3		48	3
OFC 174	Intermediate Typing	1	2	48	2
PSY 105	Introduction to Psychology	3		48	3
PSY 201	Developmental Psychology	3		48	3
SOC 101	Introduction to Sociology	3		48	3
SOC 102	Social Problems	3		48	3
PEH 101	Fundamentals of Health	3		48	3
PEH 144	Introduction to Physical Education	3		48	3
PEH 257	Standard and Advanced First Aid	3		48	3
Art or Music (or courses occupationally appropriate and approved by the EP Instructor)					6

Those students who plan to continue their education in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

ELECTRONICS TECHNOLOGY

(Associate Degree of Applied Arts and Sciences)

This two-year program will prepare the student for work as an electronics technician by familiarizing him with most electronic testing equipment, training him in technical communications, and providing him with electronic theory and skills.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
ET 190	D.C. Circuits & Electrical Measurements	3	3	96	4
ET 191	A.C. Circuits	3	3	96	4
ET 193	Active Devices	3	3	96	4
ET 194	Instrumentation	2	3	80	3
ET 231	Special Circuits	3	3	96	4
ET 232	Logic-Switch Circuits	3	3	96	4
ET 239	Industrial and Microwave Electronics Technology	3		48	3
ET 234	Electronic Circuits and Systems		6	96	3
ET 240	Electronics Theory & Application of Digital Computers	3	3	96	4
ET 237	Modular Memories and Microprocessors	3	3	96	4
					37

REQUIRED SUPPORT COURSES	
Communications or English	6
Technical Mathematics or College Level Mathematics	6
Social Science or History or Government	6
Applied Physics or College Level Physics	4
Human Relations or Psychology or Human Development	3
DFT 182 or DFT 183 or DFT 231	2
	27

Plus any additional 3 credit hours of the recommended electives listed below.

RECOMMENDED ELECTIVES:					
ET 238	Linear Integrated Circuits	3	3	96	4
ET 803	Cooperative Work Experience	1	15	256	3
ET 813	Cooperative Work Experience	1	15	256	3

Those students who plan to continue their education in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

HOROLOGY

(Certificate Programs)

These intensive programs have the objectives of developing the student's manual dexterity, judgement, and skill in the repair and adjustment techniques required to service all types of modern timekeeping mechanisms: watches, clocks, timers, chronographs, self-winding, calendar, electric, and electronic movements. Employment opportunities for skilled horologists may be found in jewelry stores, trade shops, or in one's own business. All Horology courses are on a Flexible Entry mode of registration on a space available basis. Students may enroll at the general registration for the fall and spring semester or they may enroll the first Monday in October and November in the fall semester and on the first Monday in February and March during the spring semester.

CLOCK REPAIR

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
HOR 139	Antique Clock Theory and Repair	2	23	275	8
HOR 140	Modern Clock Theory and Repair	2	23	275	8
					16
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
MGT 153	Small Business Management	3		48	3
					6

WATCH REPAIR

REQUIRED CORE COURSES					
HOR 141	Watch Cleaning and Assembly	2	23	275	8
HOR 142	Watch Part Replacement	2	23	275	8
HOR 143	Advanced Watchmaking I	2	23	275	8
HOR 144	Advanced Watchmaking II	2	23	275	8
					32
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
MGT 153	Small Business Management	3		48	3
					6

Completion of COM 131 and MGT 153 will fulfill the requirements for either or both certificate programs.

MACHINE PARTS INSPECTION

(Associate Degree of Applied Arts and Sciences)

This program is designed to prepare the trainee in the techniques of quality control pertaining to Machine Parts production processes and inspection procedures based on sound metrological concepts. Because of the uniqueness in laboratory facilities required for this program, it is designed for in-plant training. Only support courses and courses requiring no laboratory will be taught on campus.

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
MPI 122	Industrial Quality Control & Procedures	3		48	3
MPI 124	Basic Inspection Fundamentals	1	8	144	5
MPI 135	Intermediate Inspection Concepts	1	8	144	5
MPI 138	Geometric Tolerancing and True Positioning	2	2	64	3
MPI 220	Introduction to Materials and Processors	3		48	3
MPI 223	Advanced Inspection Concepts	1	8	144	5
MPI 227	Non-Destructive Testing	3		48	3
MPI 230	Introduction to Statistical Quality Control Techniques	3		48	3
MPI 237	Gage Control Standardization and Precision Measurement	2	4	96	3
MPI 803	Cooperative Work Experience	1	15	256	3
MPI 813	Cooperative Work Experience	1	15	256	3
					39
REQUIRED SUPPORT COURSES					
QCT 122	Dimensional Measurements	2	2	64	3
COM 131	Applied Composition and Speech	3		48	3
PSY 131	Human Relations	3		48	3
PHY 131	Applied Physics	3	3	96	4
BPR 177	Blueprint Reading	1	3	64	2
BPR 178	Blueprint Reading	1	3	64	2
MTH 195	Technical Mathematics	3		48	3
MTH 196	Technical Mathematics	3		48	3
EGR 186	Manufacturing Processes	1	2	64	2
					25

MACHINE SHOP

(Associate Degree of Applied Arts and Sciences)

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

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

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
MS 133	Basic Lathe	1	8	144	5
MS 134	Basic Milling Machine	1	8	144	5
MS 135	Intermediate Lathe	1	8	144	5
MS 136	Intermediate Milling Machine	1	8	144	5
MS 233	Advanced Lathe	1	8	144	5
MS 234	Advanced Milling Machine	1	8	144	5
MS 235	Applied Lathe	1	8	144	5
MS 236	Applied Milling Machine	1	8	144	5
					40
REQUIRED SUPPORT COURSES					
BPR 177	Blueprint Reading	1	3	64	2
BPR 178	Blueprint Reading	1	3	64	2
COM 131	Applied Composition and Speech	3		48	3
MTH 195	Technical Mathematics	3		48	3
MTH 196	Technical Mathematics	3		48	3
PHY 131	Applied Physics	3	3	96	4
PSY 131	Human Relations	3		48	3
QCT 122	Dimensional Measurement	2	2	64	3
					23

Plus any additional 6 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES:					
EGR 186	Manufacturing Processes	1	2	48	2
PHY 132	Applied Physics	3	3	96	4
MS 702	Cooperative Work Experience	1	10	176	2
MS 704	Cooperative Work Experience	1	20	336	4

Those students who plan to continue their education in Machine Shop in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

MANAGEMENT CAREERS

(Associate Degree of Applied Arts and Sciences)

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Students must complete all required core and support courses as well as those courses outlined for the option of their choice. Successful completion of this program leads to the Associate Degree in Applied Arts and Sciences.

CORE COURSES (Required for all options)		LEC. HRS.	LAB HRS.	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 201	Principles of Accounting I	3		48	3
or					
ACC 131	Bookkeeping I	(3)			(3)
and					
ACC 132	Bookkeeping II	(3)			(3)
ECO 201	Principles of Economics I	3		48	3
ECO 202	Principles of Economics II	3		48	3
CS 175	Introduction to Computing Science	3		48	3
MGT 136	Principles of Management	3		48	3
PSY 131	Human Relations	3		48	3
HUM 101	Introduction to the Humanities	3		48	3
					24-27
SUPPORT COURSES (Required for all options)					
COM 131	Applied Composition and Speech	3		48	3
COM 132	Applied Composition and Speech	3		48	3
	Social Science elective or Humanities elective	3		48	3
MTH 111	Math. for Business & Economics I				
or					
MTH 112	Math. for Business & Economics II				
or					
MTH 130	Business Math	3		48	3
					12

Continued

ADMINISTRATIVE MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CONT. HRS.	CR. HRS.
ACC 202	Principles of Accounting II	3		48	3
MGT 206	Principles of Marketing	3		48	3
BUS 234	Business Law	3		48	3
MGT 242	Personnel Administration	3		48	3
BUS 237	Organizational Behavior	3		48	3
OFC 231	Business Communications	3		48	3
					18

Plus any additional 9 credit hours of recommended electives listed below:

MGT 171	Introduction to Supervision	3		48	3
MGT 230	Salesmanship	3		48	3
MGT 233	Advertising and Sales Promotion	3		48	3
MGT 212	Special Problems in Business	1		16	1
OFC 160	Office Machines	3		48	3
OFC 172	Beginning Typing	2	3	80	3

MID-MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CONT. HRS.	CR. HRS.
MGT 150	Mangement Training		20	320	4
MGT 154	Management Seminar: Role of Supervision	2		32	2
MGT 151	Management Training		20	320	4
MGT 155	Management Seminar: Personnel Management	2		32	2
MGT 250	Management Training		20	320	4
MGT 254	Management Seminar: Organizational Development	2		32	2
MGT 251	Management Training		20	320	4
MGT 255	Management Seminar: Business Strategy, the Decision Process & Problem Solving	2		32	2
					24

Plus any additional 3 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES					
MGT 171	Introduction to Supervision	3		48	3
MGT 242	Personnel Administration	3		48	3
MGT 137	Principles of Retailing	3		48	3
MGT 230	Salesmanship	3		48	3
MGT 233	Advertising and Sales Promotion	3		48	3
MGT 212	Special Problems in Business	1		16	1
OFC 160	Office Machines	3		48	3
OFC 172	Beginning Typing	2	3	80	3
BUS 237	Organizational Behavior	3		48	3

SMALL BUSINESS MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CONT. HRS.	CR. HRS.
MGT 206	Principles of Marketing	3		48	3
MGT 153	Small Business Management	3		48	3
MGT 157	Small Business Bookkeeping & Accounting Practices	3		48	3
MGT 210	Small Business Organization, Acquisition & Finance	3		48	3
MGT 211	Small Business Operations	3		48	3
MGT 234	Business Law	3		48	3
					18

Plus any additional 9 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES					
MGT 171	Introduction to Supervision	3		48	3
MGT 242	Personnel Administration	3		48	3
MGT 137	Principles of Retailing	3		48	3
MGT 230	Salesmanship	3		48	3
MGT 233	Advertising and Sales Promotion	3		48	3
MGT 212	Special Problems in Business	1		16	1
OFC 160	Office Machines	3		48	3
OFC 172	Beginning Typing	2	3	80	3
BUS 237	Organizational Behavior	3		48	3

OFFICE CAREERS — GENERAL OFFICE OCCUPATIONS

(Associate Degree of Applied Arts and Sciences)

This two-year program is designed to train persons for entry level positions as word processing operators, machine transcriptionists, and clerk typists. Management principles and human relations are stressed allowing persons to move into positions as word processing supervisors, office managers, or administrative assistants.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 131	Bookkeeping I	3		48	3
or					
ACC 201	Principles of Accounting I				
*ACC 132	Bookkeeping II	3		48	3
OFC 160	Office Machines	3		48	3
OFC 162	Office Procedures	3		48	3
OFC 165	Word Processing	3		48	3
†OFC 172	Beginning Typing	2	3	80	3
OFC 174	Intermediate Typing	1	2	48	2
OFC 231	Business Communications	3		48	3
BUS 234	Business Law	3		48	3
or					
CS 175	Introduction to Computing Science				
BUS 237	Organizational Behavior	3		48	3
OFC 265	Word Processing Procedures and Practices	3		48	3
OFC 273	Advanced Typing	1	2	48	2
OFC 703	Cooperative Work Experience	1	15	256	3
OFC 713	Cooperative Work Experience	1	15	256	3
					43

*Students completeing BUS 201-Principles of Accounting I, will not need to take Bookkeeping II. They may take another of the recommended electives.

†Students may go into BUS 174-Intermediate Typing, if speed is 30 w.p.m.

REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
or					
ENG 101	Composition and Expository Reading				
COM 132	Applied Composition and Speech	3		48	3
or					
ENG 102	Composition and Literature				
MTH 130	Business Mathematics	3		48	3
PSY 131	Human Relations	3		48	3
					12

Plus any additional 6 credit hours of recommended electives below.

RECOMMENDED ELECTIVES:

MGT 136	Principles of Management	3		48	3
ECO 201	Principles of Economics I	3		48	3
PSY 105	Introduction to Psychology	3		48	3
SOC 101	Introduction to Sociology	3		48	3
OFC 803	Cooperative Work Experience	1	15	256	3
OFC 804	Cooperative Work Experience	1	20	336	4
OFC 256	Office Management	3		48	3
OFC 275	Secretarial Procedures	3		48	3
OFC 143	Comtemporary Topics in Office Careers	1		16	1

Those students who plan to continue their education in Office Careers in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

OFFICE CAREERS — GENERAL SECRETARY

(One-Year Certificate Program)

The purpose of this program is to prepare students with the basic skills necessary to enter the secretarial field.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 131	Bookkeeping I	3		48	3
or					
ACC 201	Principles of Accounting I				
OFC 159	Beginning Shorthand*	3	2	80	4
or					
OFC 166	Intermediate Shorthand				
OFC 160	Office Machines	3		48	3
OFC 162	Office Procedures	3		48	3
OFC 165	Introduction to Word Processing	3		48	3
OFC 166	Intermediate Shorthand**	3	2	80	4
or					
OFC 266	Advanced Shorthand				
OFC 172	Beginning Typing	2	3	80	3
or					
OFC 174	Intermediate Typing				
OFC 174	Intermediate Typing	1	2	48	2
or					
OFC 273	Advanced Typing				
OFC 231	Business Communications	3		48	3
					31
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
or					
ENG 101	Composition and Expository Reading				
MTH 130	Business Mathematics	3		48	3
					6
RECOMMENDED ELECTIVES:					
CS 175	Introduction to Computing Science	3		48	3

Students with previous training will be placed according to ability. A student is required to have his last semester of typing and shorthand at Mountain View College to complete this program.

*OFC 103 Speedwriting Theory may be substituted for OFC 159.

**OFC 104 Speedwriting Dictation and Transcription may be substituted for OFC 166.

OFFICE CAREERS — OFFICE SKILLS AND SYSTEMS

(One-Year Certificate Program)

This program is designed to meet the needs of those students who desire to enter the business world in a minimum of time. Intensive training in the basic office skills and systems is provided — including office machines, communications systems, records management, and other related business subjects. A general orientation to the business world is given. Personal development, human relations, business etiquette, and ethics are also stressed.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 131	Bookkeeping I	3		48	3
or					
ACC 201	Principles of Accounting I				
*OFC 160	Office Machines	3		48	3
OFC 162	Office Procedures	3		48	3
OFC 165	Introduction to Word Processing	3		48	3
OFC 172	Beginning Typing	2	3	80	3
or					
OFC 174	Intermediate Typing				
*OFC 174	Intermediate Typing	1	2	48	2
or					
OFC 273	Advanced Typing				
OFC 231	Business Communications	3		48	3
					23
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
or					
ENG 101	Composition and Expository Reading				
COM 132	Applied Composition and Speech	3		48	3
or					
ENG 102	Composition and Literature				
MTH 130	Business Math	3		48	3
					9

*Indicates courses which are open for enrollment on the first Monday of October and November in the fall semester and the first Monday of February and March in the spring semester. In each case, such enrollment is subject to completion of specified prerequisites.

OFFICE CAREERS — PROFESSIONAL SECRETARY

(Associate Degree of Applied Arts and Sciences)

The purpose of this program is to prepare students to become alert and responsive secretaries capable of performing the tasks required of them in the modern business office. Suggested electives are such that students may take courses which will allow specialties in secretarial areas such as law, selling, advertising; and accounting.

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
BUS 105	Introduction to Business	3		48	3
ACC 131	Bookkeeping I	3		48	3
or					
ACC 201	Principles of Accounting I				
OFC 159	Beginning Shorthand	3	2	80	4
or					
OFC 166	Intermediate Shorthand				
OFC 160	Office Machines	3		48	3
OFC 162	Office Procedures	3		48	3
OFC 165	Introduction to Word Processing	3		48	3
OFC 166	Intermediate Shorthand	3	2	80	4
or					
OFC 266	Advanced Shorthand				
OFC 172	Beginning Typing	2	3	80	3
or					
OFC 174	Intermediate Typing				
Or					
OFC 273	Advanced Typing				
OFC 231	Business Communications	3		48	3
OFC 265	Word Processing Practices & Procedures	3		48	3
OFC 803	Cooperative Work Experience	1	15	256	3
					37

REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
or					
ENG 101	Composition and Expository Reading				
COM 132	Applied Composition and Speech	3		48	3
or					
ENG 102	Composition and Literature				
CS 175	Introduction to Computing Science	3		48	3
MTH 130	Business Mathematics	3		48	3
					12

Continued

Plus any additional 12 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES:

MGT 136	Principles of Management	3		48	3
BUS 143	Personal Finance	3		48	3
BUS 234	Business Law	3		48	3
BUS 237	Organizational Behavior	3		48	3
HUM 101	Introduction to Humanities	3		48	3
or	ART 104, MUS 104, THE 101				
PSY 105	Introduction to Psychology	3		48	3
PSY 131	Human Relations	3		48	3
SPE 105	Fundamentals of Public Speaking	3		48	3
OFC 804	Cooperative Work Experience	1	20	336	4
OFC 814	Cooperative Work Experience	1	20	336	4
OFC 143	Contemporary Topics in Office Careers	1		16	1

Those students who plan to continue their education in Office Careers in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

POSTAL SERVICE ADMINISTRATION

(Associate Degree of Applied Arts and Sciences)

The Postal Services Administration curriculum is designed as a two-year program that leads to an Associate Degree in Applied Arts and Sciences. The program aids the student in developing postal skills and provides the student with an insight into the 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.

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
PSA 110	Introduction to Postal Service	3		48	3
PSA 120	Mail Processing	3		48	3
PSA 122	Customer Services	3		48	3
PSA 125	Postal Economics and Finance	3		48	3
PSA 210	Labor Relations	3		48	3
PSA 212	Employee Services	3		48	3
PSA 214	Postal Problems Analysis	3		48	3
MGT 171	Introduction to Supervision	3		48	3
MGT 242	Personnel Administration	3		48	3
					27
REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
COM 132	Applied Composition and Speech	3		48	3
PSY 131	Human Relations	3		48	3
CS 175	Introduction to Computing Science	3		48	3
PSY 105	Introduction to Psychology	3		48	3
GVT 201	American Government	3		48	3
MTH 130	Business Mathematics	3		48	3
SOC 101	Introduction to Sociology	3		48	3
BUS 237	Organizational Behavior	3		48	3
*PSY 202	Applied Psychology	3		48	3
					27

Plus any additional 6 credit hours selected from the following:

RECOMMENDED ELECTIVES:					
BUS 105	Introduction to Business	3		48	3
HST 101	History of the United States	3		48	3
PEH 257	Advanced First Aid & Emergency Care	3		48	3
MGT 136	Principles of Management	3		48	3
ECO 201	Principles of Economics I	3		48	3
HUM 101	Introduction to Humanities	3		48	3
OR	ART 104, MUS 104, or THE 101				

*To be taken after completion of PSY 105

Those students who plan to continue their education in Postal Service Administration in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

WELDING TECHNOLOGY

(Associate Degree of Applied Arts and Sciences)

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.

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

Students must complete all of the following:

REQUIRED CORE COURSES		LEC.	LAB	CONT. HRS.	CR. HRS.
WE 130	Pattern Layout	2	3	80	3
WE 140	Oxyacetylene Welding I	1	7	32	1
WE 141	Oxyacetylene Welding II	1	7	32	1
WE 142	Oxyacetylene Braze Welding	1	7	32	1
WE 143	Shielded Metal-Arc Welding I	1	7	32	1
WE 144	Shielded Metal-Arc Welding II	1	7	32	1
WE 145	Plate Welding	1	7	64	2
WE 147	Micro-Wire Welding I	1	7	64	2
WE 148	Semiautomatic Arc Welding I	1	7	32	1
WE 149	Gas Tungsten Arc Welding (TIG) I	1	7	64	2
WE 150	Basic Welding Metallurgy	3		48	3
WE 240	Pipe Welding I	1	7	64	2
WE 241	Plate Welding II	1	7	64	2
WE 242	Gas Tungsten Arc Welding (TIG) II	1	64	7	2
WE 243	Semiautomatic Arc Welding II (Flux Core)	1	7	64	2
WE 244	Micro-Wire Welding II (Pipe)	1	7	64	2
MS 151	Basic Machine Operation for Weld Tooling	1	4	80	3
					31

REQUIRED SUPPORT COURSES					
COM 131	Applied Composition and Speech	3		48	3
DFT 182	Technical Drafting	1	3	64	2
ET 235	Fundamentals of Electricity	3	3	96	4
MTH 195	Technical Mathematics	3		48	3
					12

Continued

Plus any additional 21 credit hours of recommended electives listed below.

RECOMMENDED ELECTIVES:

BPR 177	Blueprint Reading	1	3	64	2
BUS 105	Introduction to Business	3		48	3
CHM 115	General Chemistry	3	3	96	4
EGR 186	Manufacturing Processes	1	2	48	2
MTH 196	Technical Mathematics	3		48	3
PHY 131	Applied Physics	3	3	96	4
PSY 131	Human Relations	3		48	3
SS 131	American Civilization	3		48	3
WE 146	Plasma-Arc Welding I	1	7	32	1
WE 245	Plasma-Arc Welding II	1	7	32	1
WE 246	Pipe Welding II	1	7	64	2
WE 247	Manual Submerged Arc Welding	1	7	32	1
WE 248	Specialized Welding Application I	1	7	64	2
WE 249	Specific Code Competency Preparation	1	7	64	2
WE 250	Specialized Welding Application II	1	7	64	2
WE 251	Applied Welding Metallurgy	3		48	3

Cooperative Work Experience — (Students may take a total of 12 credit hours in the Cooperative Work Experience Program.)

Those students who plan to continue their education in Welding Technology in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

WELDING TECHNOLOGY

(Associate Degree of Applied Arts and Sciences)
Parallel Curriculum Pattern for Veteran Students

	REQUIRED CORE COURSES	LEC.	LAB	CONT. HRS.	CR. HRS.
WE 120	Oxyacetylene Welding (WE 140,141, 142)	1	5	96	3
WE 121	Introduction to Shielded Metal-Arc Plate Welding (WE 143, 144, 145)	1	7	128	4
WE 122	Semiautomatic Welding I (WE 147, 148)	1	5	96	3
WE 123	Combination Arc Welding I (WE 149, 241)	1	7	128	4
WE 124	Combination Pipe Welding I (WE 240, 244)	1	7	128	4
WE 125	Combination Gas Shielded Arc Welding (WE 242, 243)	1	7	128	4
WE 130	Pattern Layout	2	3	80	3
WE 150	Basic Welding Metallurgy	3		48	3
MS 151	Basic Machine Operation for Weld Tooling	1	4	80	3
					31
	REQUIRED SUPPORT COURSES				
COM 131	Applied Composition and Speech	3		48	3
DFT 182	Technical Drafting	1	3	64	2
ET 235	Fundamentals of Electricity	3	3	96	4
MTH 195	Technical Mathematics	3		48	3
					12

Plus any additional 21 credit hours of recommended electives listed below.

	RECOMMENDED ELECTIVES:				
BPR 177	Blueprint Reading	1	3	64	2
BUS 105	Introduction to Business	3		48	3
CHM 115	General Chemistry	3	3	96	4
EGR 189	Characteristics and Strengths of Materials	3		48	3
MTH 196	Technical Mathematics	3		48	3
PHY 131	Applied Physics	3	3	96	4
PSY 131	Human Relations	3		48	3
SS 131	American Civilization	3		48	3
WE 146	Plasma-Arc Welding I	1	7	32	1
WE 245	Plasma-Arc Welding II	1	7	32	1
WE 246	Pipe Welding II	1	7	64	2
WE 247	Manual Submerged Arc Welding	1	7	32	1
WE 248	Specialized Welding Application I	1	7	64	2
WE 249	Specific Code Competency Preparation	1	7	64	2
WE 250	Specialized Welding Application II	1	7	64	2
WE 251	Applied Welding Metallurgy	3		48	3

Cooperative Work Experience — (Students may take a total of 12 credit hours in the Cooperative Work Experience Program.)

Thoses students who plan to continue their education in Welding Technology in pursuit of a Baccalaureate Degree should consult a counselor on entering this program.

North Lake College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING

Accounting Careers is designed to provide the student with a working knowledge of bookkeeping procedures currently in use in business; to introduce accounting principles supporting bookkeeping procedures; and to give you practical bookkeeping experience by the use of problem solving.

ACCOUNTING TECHNICIAN

(Certificate Program)

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
BUS 105 Introduction to Business	3	0	3
‡ACC 131 Bookkeeping I	3	0	3
OFC 160 Office Machines	3	0	3
COM 131 Applied Composition and Speech	3	0	3
MTH 130 Business Mathematics	3	0	3
			15
SPRING SEMESTER I			
‡ACC 132 Bookkeeping II	3	0	3
OFC 172 Beginning Typing	2	3	3
or OFC 174 Intermediate Typing	(1)	(2)	(2)
CS 175 Introduction to Computer Science	3	0	3
COM 132 Applied Composition and Speech	3	0	3
*Elective			3
			14/15

*Recommended Electives:
PSY 131 Human Relations
OFC 231 Business Communications
OFC 162 Office Procedures
BUS 234 Business Law

‡ACC 201 — Principles of Accounting I may be substituted for ACC 131 and ACC 132.

ACCOUNTING

Associate Degree Program

This program is designed to prepare the 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 as they relate to external reporting with selected electives in cost accounting and tax accounting.

Courses required for an Associate in Applied Arts and Sciences Degree are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
*ACC 201 Principles of Accounting I	3	0	3
BUS 105—Introduction to Business	3	0	3
OFC 160 Office Machines	3	0	3
COM 131 Applied Composition and Speech	3	0	3
or ENG 101 Composition and Expository Reading			
MTH 130 Business Mathematics	3	0	3
or MTH 111 Mathematics for Business and Economics			
			15

*ACC 131, Bookkeeping I, and ACC 132, Bookkeeping II, may be substituted for ACC 201.

SPRING SEMESTER I			
ACC 202 Principles of Accounting II	3	0	3
MGT 136 Principles of Management	3	0	3
CS 175 Introduction to Computer Sciences	3	0	3
COM 132 Applied Composition and Speech	3	0	3
or ENG 102 Composition and Literature			
OFC 172 Beginning Typing	2	3	3
or OFC 174 Intermediate Typing	(1)	(2)	(2)
			14/15
FALL SEMESTER II			
ACC 203 Intermediate Accounting	3	0	3
ACC 238 Cost Accounting	3	0	3
or ACC 239 Income Tax Accounting			
GVT 201 American Government	3	0	3
ECO 201 Principles of Economics	3	0	3
ACC 803 or ACC 804 Work Experience	1	15-20	3-4
or Elective*			
			15/16

Continued

SPRING SEMESTER II

ACC 204 Managerial Accounting	3	0	3
BUS 234 Business Law	3	0	3
OFC 231 Business Communications	3	0	3
ECO 202 Principles of Economics	3	0	3
BUS 237 Organizational Behavior	3	0	3
ACC 813 or ACC 814 Work Experience or Elective*	1	15-20	3-4
			18/19

* Recommended Electives:
BUS 143 Personal Finance
ACC 205 Business Finance
MGT 206 Principles of Marketing
PSY 105 Introduction to Psychology
PSY 131 Human Relations

AIR CONDITIONING AND REFRIGERATION

This program is designed to prepare the student for entry level employment in the Air Conditioning and Refrigeration industry. Two options are available in this program: Residential Air Conditioning and Commercial Refrigeration and Air Conditioning. The student will develop the skills and knowledge necessary to install, repair and maintain equipment related to these options.

Some Air Conditioning courses are completely individualized. This allows the students to progress at their own pace in order to fully comprehend theory and develop the necessary skills. Individualized, self-paced instruction also allows the students to take a portion of a course (module) without taking the complete course, if some specific knowledge or skill is desired.

Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Sciences Degree.

CERTIFICATE PROGRAM

A Certificate of Completion may be obtained in one or both of the options in the Air Conditioning Program. In order to qualify for a certificate, the student must successfully complete the courses listed for the specific option. The courses may be taken in any order desired after consultation with the instructor.

RESIDENTIAL AIR CONDITIONING

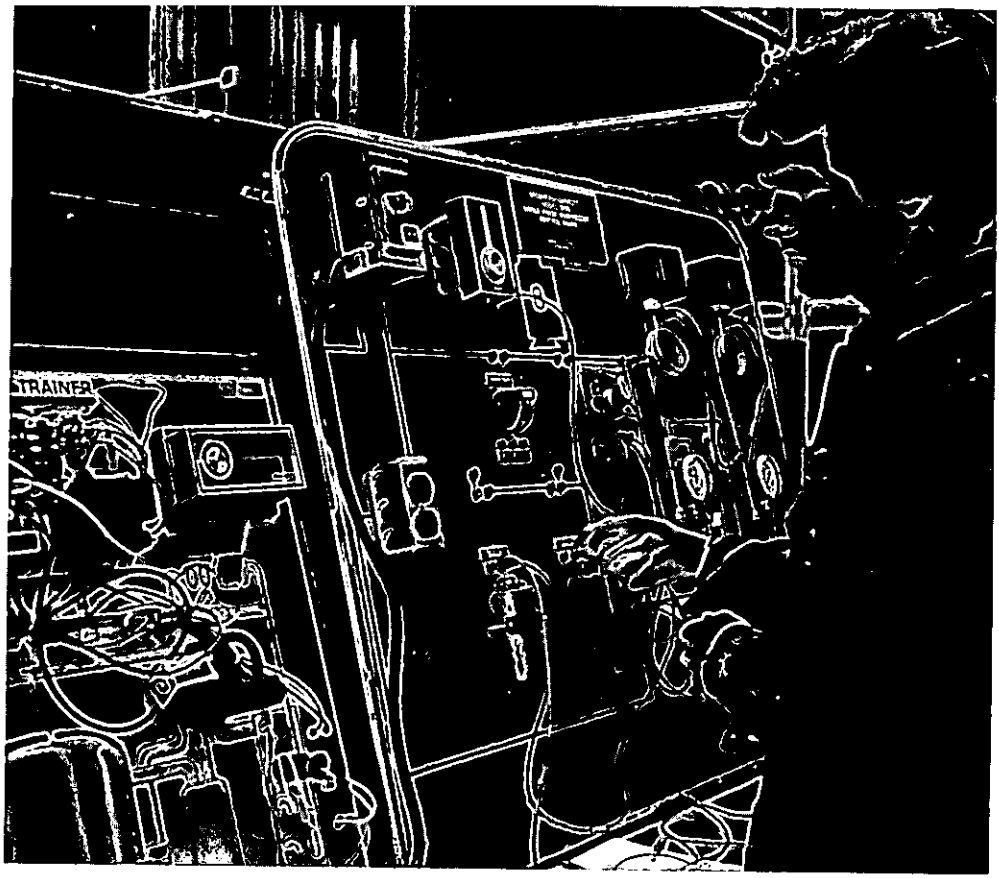
Certificate Option

The student will develop skills in diagnosing, checking, servicing, installing and repairing both electrical and mechanical components or residential cooling and heating systems; the student will also make load calculations, select equipment and design residential air distribution systems.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
AC 150 Basic Principles of Electricity	90	3
AC 160 Basic Principles of Refrigeration	90	3
MTH 195 Technical Mathematics	48	3
PHY 131 Applied Physics	96	4
	324	13
SPRING SEMESTER I		
AC 155 Advanced Electrical Circuits	90	3
AC 165 Vapor Compression Systems	90	3
AC 170 Pipefitting Procedures	90	3
AC 175 Residential Load Calculations	90	3
	360	12

Continued

FALL SEMESTER II		
AC 180 Residential Cooling Systems	90	3
AC 185 Residential Heating Systems	90	3
AC 240 Air Distribution Systems	90	3
AC 245 Residential Systems Service	90	3
ACR 703 Cooperative Work Experience	256	3
OR	or	or
ACR 704 Cooperative Work Experience	336	4
OR		
*Elective	48	3-4
	408-696	15-16
Minimum hours for Certificate	1300	40



COMMERCIAL REFRIGERATION AND INDUSTRIAL AIR CONDITIONING — CERTIFICATE PROGRAM

The student will develop skills in diagnosing, servicing, checking, installing and repairing both electrical and mechanical components of Commercial Refrigeration and Industrial Air Conditioning Systems.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
AC 150 Basic Principles of Electricity	90	3
AC 160 Basic Principles of Refrigeration	90	3
MTH 195 Technical Mathematics	48	3
PHY 131 Applied Physics	96	4
	324	13
SPRING SEMESTER I		
AC 155 Advanced Electrical Circuits	90	3
AC 165 Vapor Compression Systems	90	3
AC 170 Pipefitting Procedures	90	3
AC 190 Commercial Refrigeration Systems	90	3
AC 195 Commercial Refirgeration Systems Service	90	3
	450	15
FALL SEMESTER II		
AC 260 Special Commercial Refrigeration Applications	90	3
AC 270 Industrial Air-Conditioning Systems	90	3
AC 275 Industrial Air-Conditioning Systems Service	90	3
AC 280 Hydronic Systems	90	3
AC 703 Cooperative Work Experience	256	3
or	or	or
AC 704 Cooperative Work Experience	336	4
or	or	or
*Elective	48	3
	616-696	15-16
Minimum hours for Certificate	1390	43

ASSOCIATE DEGREE PROGRAM

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Residential Air Conditioning or Commercial Refrigeration and Air Conditioning must complete all of the following courses:

RESIDENTIAL AIR-CONDITIONING

Associate Degree Program

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
ACC 150 Basic Principles of Electricity	90	3
AC 160 Basic Principles of Refrigeration	90	3
MTH 195 Technical Mathematics	48	3
PHY 131 Applied Physics	96	4
	324	13
SPRING SEMESTER I		
AC 155 Advanced Electrical Circuits	90	3
AC 165 Vapor Compression Systems	90	3
AC 170 Pipefitting Procedures	90	3
AC 175 Residential Load Calculations	90	3
SS 131 American Civilization	48	3
	408	15
FALL SEMESTER II		
AC 180 Residential Cooling Systems	90	3
AC 185 Residential Heating Systems	90	3
AC 240 Air Distribution Systems — Residential	90	3
BPR 177 Blueprint Reading	64	2
COM 131 Applied Composition & Speech	48	3
MAR 240 Professional Service Skills		
OR	or	or
PSY 131 Human Relations	48	3
	430	17
SPRING SEMESTER II		
AC 245 Residential Systems Service	90	3
AC 250 Air-Conditioning Equipment Selection	90	3
AC 255 Air Distribution Systems Design	90	3
AC 703 Cooperative Work Experience	256	3
or	or	or
AC 704 Cooperative Work Experience	336	4
*Elective	48	3
	574-654	15-16
Minimum Hours Required for Associate Degree:		60

Continued

* ELECTIVES

Three hours of electives are required for the Residential AC Certificate. Residential AC Associate Degree and the Commercial Refrigeration and Industrial AC Certificate. Following is a list of recommended electives:

AC 270 Industrial Air-Conditioning Systems	90	3
ACR 803 Cooperative Work Experience	256	3
ACR 804 Cooperative Work Experience	336	4
BUS 105 Introduction to Business	48	3
ACC 131 Bookkeeping	48	3
MGT 136 Principles of Management	48	3
COM 132 Applied Composition & Speech	48	3
* MAR 240 Professional Service Skills	48	3
* PSY 131 Human Relations	48	3

* MAR 240 or PSY 131 required in the Associate Degree Program.

COMMERCIAL REFRIGERATION AND INDUSTRIAL AIR CONDITIONING

(Associate Degree Program)

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
AC 150 Basic Principles of Electricity	90	3
AC 160 Basic Principles of Refrigeration	90	3
MTH 195 Technical Mathematics	48	3
PHY 131 Applied Physics	96	4
BPR 177 Blueprint Reading	64	2
	338	15
SPRING SEMESTER I		
AC 155 Advanced Electrical Circuits	90	3
AC 165 Vapor Compression Systems	90	3
AC 170 Pipefitting Procedures	90	3
AC 190 Commercial Refrigeration Systems	90	3
SS 131 American Civilization	48	3
	408	15
FALL SEMESTER II		
AC 195 Commercial Refrigeration Systems Service	90	3
AC 260 Special Commercial Refrigeration Applications	90	3
AC 265 Advanced Commercial Refrigeration Systems	90	3
AC 270 Industrial Air-Conditioning Systems	90	3
COM 131 Applied Composition & Speech	48	3
	408	15
SPRING SEMESTER II		
AC 275 Industrial Air-Conditioning Systems	90	3
AC 280 Hydronic Systems	90	3
AC 285 Advanced Industrial Air-Conditioning Systems	90	3
AC 290 Industrial Air-Conditioning Control Systems	90	3
AC 703 Cooperative Work Experience	256	3
OR	or	or
AC 704 Cooperative Work Experience	336	4
MAR 240 Professional Service Skills		
OR		
PSY 131 Human Relations	48	3
	664-744	18-19
Minimum Hours Required for the Associate Degree:	1868	63

BUILDING TRADES —
RESIDENTIAL AND COMMERCIAL CARPENTRY

This program is designed to prepare the student for entry level employment as a carpenter in the Building Construction field. Specific training is provided in the use and care of hand tools, and power equipment, scheduling, layout and construction of residential and light commercial type buildings, cabinet making, blueprint reading and cost estimating. Two options are available in this program: Residential Carpentry and Commercial Carpentry.

Some Carpentry courses are individualized. This allows the students to progress at their own pace in order to fully comprehend theory and develop the necessary skills. The individualized self-paced instruction also allows the student to take a course (module) without taking the complete course. Credit for prior training or experience may be granted.

Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Sciences Degree.

CERTIFICATE PROGRAM

A Certificate of Completion may be obtained in one or both of the options in Carpentry. In order to qualify for a certificate, the student must successfully complete the following courses. Courses may be taken in any order after consultation with the instructor.

RESIDENTIAL CARPENTRY

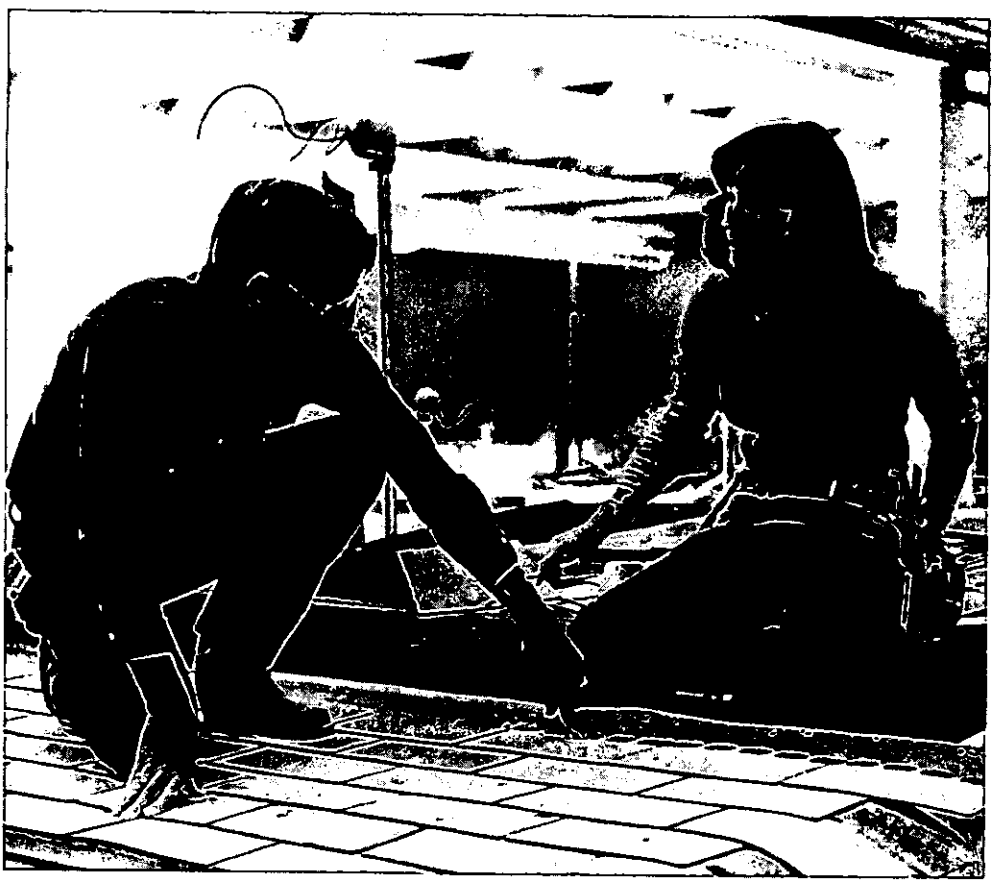
(Certificate Option)

The residential carpentry option is designed to prepare the student for entry level employment as a carpenter in all phases of residential construction.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
CAR 101 Woodworking/Tools/Materials	90	3
CAR 102 Site Prep/Foundation Forming	90	3
BPR 177 Blueprint Reading	64	2
MTH 195 Technical Mathematics	48	3
CAR 103 Construction Safety	30	1
	322	12
SPRING SEMESTER I		
CAR 104 Residential Framing	90	3
CAR 105 Roof Framing I	90	3
CAR 106 Exterior Finish	90	3
CAR 107 Cost Estimating	48	3
	318	12

Continued

FALL SEMESTER II		
CAR 205 Roof Framing II	90	3
CAR 208 Interior Finish I	90	3
CAR 201 Cabinet Building I	90	3
	270	9
SPRING SEMESTER II		
CAR 203 Stair Building	90	3
CAR 202 Cabinet Building II	90	3
CAR 703 Work Experience	256	3
or	or	or
CAR 704 Work Experience	336	4
	436-516	9-10
Minimum Hours Required for Carpentry Certificate Program	1346	42



COMMERCIAL CARPENTRY

(Certificate Program)

The Commercial Carpentry option is designed to prepare the student for entry level employment as a carpenter in the construction industry related to commercial buildings.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
CAR 101 Woodworking/Tools/Materials	90	3
CAR 102 Site Prep/Foundation Forming	90	3
BPR 177 Blueprint Reading	64	2
MTH 195 Technical Mathematics	48	3
CAR 103 Construction Safety	30	1
	322	12
SPRING SEMESTER I		
CAR 108 Modern Construction Practices	90	3
CAR 109 Concrete Slabs in Commercial Building	90	3
CAR 208 Interior Finish I	90	3
CAR 107 Cost Estimating	48	3
	318	12
FALL SEMESTER II		
CAR 204 Wall Forms Commercial	90	3
CAR 206 Vertical Piers and Columns	90	3
CAR 209 Interior Finish II — Commercial	90	3
	270	9
SPRING SEMESTER II		
CAR 210 Horizontal Beam Form and Fire Encasement Forms	90	3
CAR 203 Stair Building	90	3
CAR 211 Properties of Concrete	30	1
CAR 703 Work Experience	256	3
or	or	or
CAR 704 Work Experience	336	4
	466-546	10-11
Minimum Required for Commercial Carpentry	1376	43

ASSOCIATE DEGREE PROGRAM

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Residential Carpentry or Commercial Carpentry must complete the following courses:

RESIDENTIAL CARPENTRY

(Associate Degree Program)

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
CAR 101 Woodworking/Tools/Materials	90	3
CAR 102 Site Prep/Foundation Forming	90	3
BPR 177 Blueprint Reading	64	2
MTH 195 Technical Mathematics	48	3
COM 131 Applied Composition and Speech	48	3
CAR 103 Construction Safety	30	1
	370	15
SPRING SEMESTER I		
CAR 104 Residential Framing	90	3
CAR 105 Roof Framing I	90	3
CAR 106 Exterior Finish	90	3
CAR 107 Cost Estimating	48	3
SS 131 American Civilization	48	3
	366	15
FALL SEMESTER II		
CAR 205 Roof Framing II	90	3
CAR 208 Interior Finish I	90	3
CAR 201 Cabinet Building I	90	3
BUS 105 Introduction to Business	48	3
COM 132 Applied Composition and Speech	48	3
	366	15
SPRING SEMESTER II		
CAR 203 Stair Building	90	3
CAR 202 Cabinet Building II	90	3
CAR 703 Work Experience	256	3
or	or	or
CAR 704 Work Experience	336	4
PSY 131 Human Relations	48	3
ACC 131 Bookkeeping I	48	3
	532-612	15-16
Minimum Hours Required for the Residential Carpentry — Associate Degree	1634	60

COMMERCIAL CARPENTRY*

(Associate Degree Program)

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
CAR 101 Woodworking/Tools/Materials	90	3
CAR 102 Site Prep/Foundation Forming	90	3
BPR 177 Blueprint Reading	64	2
MTH 195 Technical Mathematics	48	3
COM 131 Applied Composition and Speech	48	3
CAR 103 Construction Safety	30	1
	370	15
SPRING SEMESTER I		
CAR 108 Modern Construction Practices	90	3
CAR 109 Concrete Slabs in Commercial Building	90	3
CAR 208 Interior Finish I	90	3
CAR 107 Cost Estimating	48	3
SS 131 American Civilization	48	3
	366	15
FALL SEMESTER II		
CAR 204 Commercial Wall Forms	90	3
CAR 206 Vertical Piers and Columns	90	3
CAR 209 Interior Finish II Commercial	90	3
BUS 105 Introduction to Business	48	3
COM 132 Applied Composition and Speech	48	3
	366	15
SPRING SEMESTER II		
CAR 210 Horizontal Beam Form & Fire Encasement Forms	90	3
CAR 203 Stair Building	90	3
CAR 211 Properties of Concrete	30	1
CAR 703 Work Experience	256	3
or	or	or
CAR 704 Work Experience	336	4
PSY 131 Human Relations	48	3
ACC 131 Bookkeeping I	48	3
	562-642	16-17
Minimum Hours Required for the Associate Degree	1664	61

BUILDING TRADES — ELECTRICAL

This program is designed to prepare the student for entry or advancement in the Electrical career field. Major areas of the career field are represented allowing the student to seek employment within a broad job market.

Some Electrical courses are completely individualized. This allows the students to progress at their own pace in order to fully comprehend theory and develop the necessary skills. The individualized self-paced instruction also allows the student to take a portion of a course (module) without taking the complete course if some specific knowledge or skill is desired. Credit for prior experience or training may be given by placement testing arranged through the instructor. Students may elect to receive a certificate or may apply the certificate courses in this program toward an Associate in Applied Arts and Sciences Degree.

ELECTRICAL

(Certificate Program)

Completion of all of the courses listed below qualifies a student for a certificate in Electricity. The courses may be taken in any order after consultation with the instructor.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ELE 100 Electrical Orientation	30	1	
ELE 101 DC Circuits and Measurements	30	1	
ELE 111 Residential Codes	30	1	
ELE 112 General Wiring	120	4	
ELE 113 Appliance Circuits	90	3	
MTH 195 Technical Mathematics	48	3	
BPR 177 Blueprint Reading	64	2	
	412	15	
SPRING SEMESTER I			
ELE 114 Low Voltage Circuits	30	1	
ELE 121 Commercial Codes	30	1	
ELE 122 Commercial Wiring	120	4	
ELE 123 Power Circuits	90	3	
ELE 202 Basic AC Circuits	60	2	
ELE 231 Motor Codes	30	1	
ELE 232 DC and Single Phase Machines	30	1	
ELE 233 Three-Phase Motors	30	1	
	420	14	

Continued

FALL SEMESTER II

ELE 241 Control Circuit Diagrams	30	1
ELE 242 Magnetic Starting and Overload Protection	30	1
ELE 243 Jogging, Reversing, and Sequencing	30	1
ELE 244 Solid State Controls	30	1
ELE 203 Three-Phase Circuits	30	1
ELE 251 Transformer Types and Testing	30	1
ELE 252 Distribution Transformers	60	2
ELE 261 Residential Planning	60	2
ELE 262 Commercial Planning	60	2
	360	12
Minimum Hours Required for Certificate:	1192	41

ELECTRICAL

(Associate Degree Program)

Students wishing to earn an Associate in Applied Arts and Sciences Degree with a major in Electricity must complete all of the courses below.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
ELE 100 Electrical Orientation	30	1
ELE 101 DC Circuits and Measurements	30	1
ELE 202 Basic AC Circuits	60	2
ELE 203 Three-Phase Circuits	30	1
ELE 251 Transformer Types and Testing	30	1
ELE 252 Distribution Transformers	60	2
ELE 111 Residential Codes	30	1
MTH 195 Technical Mathematics	48	3
BPR 177 Blueprint Reading	64	2
	382	14
SPRING SEMESTER I		
ELE 112 General Wiring	120	4
ELE 113 Appliance Circuits	90	3
ELE 114 Low Voltage Circuits	30	1
ELE 121 Commercial Codes	30	1
COM 131 Applied Composition and Speech	48	3
SS 131 American Civilization	48	3
	366	15
FALL SEMESTER II		
ELE 231 Motor Codes	30	1
ELE 232 DC and Single Phase Machines	30	1
ELE 122 Commercial Wiring	120	4
ELE 123 Power Circuits	90	3
ELE 703 Work Experience	256	3
or	or	or
ELE 704 Work Experience	336	4
*Electives	48	3
	574-654	15-16

Continued

SPRING SEMESTER II

ELE 233 Three-Phase Motors	30	1
ELE 241 Control Circuit Diagrams	30	1
ELE 242 Magnetic Starting and Overload Protection	30	1
ELE 243 Jogging, Reversing, and Sequencing	30	1
ELE 244 Solid State Controls	30	1
ELE 261 Residential Planning	60	2
ELE 262 Commercial Planning	60	2
*Electives	144	9
	414	18
Minimum Hours required for the Assoicate Degree:	1736	62

* Twelve credit hours of electives are required and shall be selected from the following list of courses:

COM 132 Applied Composition and Speech	48	3
PSY 131 Human Relations	48	3
PHY 131 Applied Physics	96	4
BUS 105 Introduction to Business	48	3
ACC 131 Bookkeeping I	48	3
MGT 136 Principles of Management	48	3
MGT 153 Small Business Management	48	3
ELE 803 Work Experience	256	3
or	or	or
ELE 804 Work Experience	336	4

DIESEL MECHANICS

This program is designed to prepare the student for entry level employment in the Diesel Mechanics industry. The student will develop the skills and knowledge necessary for the maintenance, repair and rebuilding of various diesel engines and diesel powered equipment.

Some Diesel Mechanics courses are competely individualized. This allows the students to progress at their own pace in order to fully comprehend theory and develop the necessary skills. The individualized, self-paced instruction also allows the student to take a portion of a course (module) without taking the complete course if some specific knowledge or skill is desired. Credit for prior experience or training may be given by placement testing arranged through the instructor. Students may elect to receive a certificate or may apply the certificate courses required in this program toward an Associate in Applied Arts and Sciences Degree.

DIESEL MECHANICS

(Certificate Program)

Completion of the courses listed below qualifies a student for a certificate in Diesel Mechanics. The courses may be taken in any order desired after consultation with the instructor.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
DME 127 Shop Practices	60	2
*DME 101 Caterpillar Diesel Engine	120	4
*DME 102 Cummins Diesel Engines	120	4
*DME 103 Detroit Diesel — Diesel Engines	120	4
*Any two of the above courses		
MTH 195 Technical Mathematics	48	3
	348	13
SPRING SEMESTER I		
DME 121 Standard Transmissions	90	3
DME 122 Heavy Duty Clutches and Torque Converters	60	2
DME 123 Air Brake Systems	60	2
DME 124 Differentials and Drive Lines	60	2
	270	9

FALL SEMESTER II		
DME 141 Caterpillar Engine Tune-Up and Fuel Systems	60	2
DME 142 Cummins Engine Tune-Up and Fuel Systems	60	2
DME 143 Detroit Diesel—Diesel Engine Tune-up and Fuel Systems	60	2
DME 144 Diesel Engine Air Induction, Cooling and Lubrication Systems	30	1
DME 145 Electrical Theory and Basic Automotive Circuitry	30	1
DME 146 Starting, Charging, Lighting, and Accessory Circuitry	30	1
DME 703 Work Experience	256	3
	526	12
SPRING SEMESTER II		
DME 137 Oxygen/Acetylene and Arc Welding	90	3
DME 125 Automatic Transmissions	60	2
(Diesel Engine — 101, 102, and 103 not completed previously must now be completed)	120	4
DME 126 Heavy Duty Truck Air Conditioning	60	2
	330	11
Minimum Hours required for the Diesel Certificate:	1474	45



DIESEL MECHANICS

(Associate Degree Program)

Courses required for an Associate in Applied Arts and Sciences Degree with a major in Diesel Mechanics are listed below. The courses may be taken in any order providing the prerequisites have been met.

	CON. HRS.	CR. HRS.
FALL SEMESTER I		
DME 127 Shop Practices	60	2
*DME 101 Caterpillar Diesel Engine	120	4
*DME 102 Cummins Diesel Engines	120	4
*DME 103 Detroit Diesel — Diesel Engines	120	4
*Any two of the above courses		
MTH 195 Technical Mathematics	48	3
BPR 177, or BUS 105, or BUS 131, or COM 132	48-64	2-3
	336-352	13-14
SPRING SEMESTER I		
DME 121 Standard Transmissions	90	3
DME 122 Heavy Duty Clutches and Torque Converters	60	2
DME 123 Air Brake Systems	60	2
DME 124 Differentials and Drive Lines	60	2
COM 131 Applied Composition and Speech	48	3
*Elective	48	3
	366	15

Continued

FALL SEMESTER II		
DME 141 Caterpillar Engine Tune-Up and Fuel Systems	60	2
DME 142 Cummins Engine Tune-up and Fuel Systems	60	2
DME 143 Detroit Diesel—Diesel Engine Tune-up and Fuel Systems	60	2
DME 144 Diesel Engine Air Induction, Cooling, and Lubrication Systems	30	1
DME 145 Electrical Theory and Basic Automotive Circuitry	30	1
DME 146 Starting, Charging, Lighting, and Accessory Circuitry	30	1
DME 703 Work Experience	256	3
PHY 131 Applied Physics	96	4
	622	16
SPRING SEMESTER II		
DME 126 Heavy Truck Air Conditioning	60	2
DME 137 Oxygen/Acetylene and Arc Welding	90	3
DME 125 Automatic Transmissions	60	2
(Diesel Engine — 101, 102, and 103 not completed previously must now be completed)	120	4
SS 131 American Civilization	48	3
*Elective	48	3
	426	17
Minimum Hours Required for Associate Degree	1778	64
* Electives shall be selected from the following list of courses:		
COM 132 Applied Composition and Speech	48	3
PSY 131 Human Relations	48	3
BPR 177 Blueprint Reading	64	2
BUS 105 Introduction to Business	48	3
ACC 131 Bookkeeping I	48	3
MGT 136 Principles of Management	48	3
MGT 153 Small Business Management	48	3
DME 704 Work Experience	336	4

DISTRIBUTION TECHNOLOGY

(Associate Degree Program)

The Distribution Technology program is designed to prepare students for entry or advancement in the career field of wholesale distribution. This program focuses on the basic business techniques and understanding of the principles and techniques relating to distribution, warehousing, pricing, merchandising, operations and management.

Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
DT 130 Introduction to Distribution	3	0	3
BUS 105 Introduction to Business	3	0	3
MTH 130 Business Mathematics	3	0	3
MGT 136 Principles of Management	3	0	3
DT 131 Principles and Practices of Wholesale Marketing I	3	0	3
			15
SPRING SEMESTER I			
DT 132 Principles and Practices of Wholesale Marketing II	3	0	3
ECO 201 Principles of Economics I	3	0	3
BUS 234 Business Law	3	0	3
COM 131 Applied Composition & Speech	3	0	3
Elective (Select from Recommended Electives)*	3	0	3
			15
FALL SEMESTER II			
DT 231 Purchasing, Pricing, & Inventory Management	3	0	3
ACC 201 Principles of Accounting I	3	0	3
BUS 237 Organizational Behavior	3	0	3
OFC 231 Business Communications	3	0	3
Elective (Select from Recommended Electives)*	3	0	3
			15
SPRING SEMESTER II			
DT 230 Materials Handling & Physical Distribution	3	0	3
DT 133 Transportation & Traffic Management	3	0	3
CS 175 Introduction to Computer Science	3	0	3
Elective (Select from Recommended Electives)*	6	0	6
			15
Minimum Hours Required for Associate Degree			60
* Recommended Electives			
ACC 202 Principles of Accounting II	3	0	3
ECO 202 Principles of Economics II	3	0	3
MGT 206 Principles of Marketing	3	0	3
MGT 230 Salesmanship	3	0	3
INS 209 Principles of Insurance	3	0	3
OFC 160 Office Machines	3	0	3
OFC 172 Beginning Typing	2	3	3
OFC 174 Intermediate Typing	1	2	2
DT 803, 804, 813, 814, Cooperative Work Experience	1	15-20	3-4

MANAGEMENT CAREERS

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Successful completion of the program leads to the Associate in Applied Arts and Sciences Degree.

CORE COURSES (Required for all options)	LEC. HRS.	LAB. HRS.	CR. HRS.
BUS 105 Introduction to Business	3	0	3
ACC 201 Principles of Accounting I or	3	0	3
ACC 131 Bookkeeping I and	(3)	0	(3)
ACC 132 Bookkeeping II	(3)	0	(3)
ECO 201 Principles of Economics I	3	0	3
ECO 202 Principles of Economics II	3	0	3
CS 175 Introduction to Computer Science	3	0	3
MGT 136 Principles of Management	3	0	3
PSY 131 Human Relations	3	0	3
HUM 101 Introduction to the Humanities	3	0	3
			24-27
SUPPORT COURSES (Required for all options)			
COM 131 Applied Composition and Speech*	3	0	3
COM 132 Applied Composition and Speech*	3	0	3
Elective Social Science or Humanities	3	0	3
MTH 111 Math for Business & Economics I or MTH 112 Math. for Business & Economics II or MTH 130 Business Math	3	0	3
			12

*Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when using ENG 101 and ENG 102 as substitutes.

ADMINISTRATIVE MANAGEMENT OPTION

The Administrative Management option offers a continuation of the traditional management and business studies which were begun in the required core courses.

	LEC. HRS.	LAB. HRS.	CR. HRS.
ACC 202 Principles of Accounting II	3	0	3
MGT 206 Principles of Marketing	3	0	3
BUS 234 Business Law	3	0	3
MGT 242 Personnel Administration	3	0	3
BUS 237 Organizational Behavior	3	0	3
OFC 231 Business Communications	3	0	3
Electives			9
			27

MID-MANAGEMENT OPTION

The Mid-Management option is a cooperative plan with members of the business community whereby the student attends college classes in management and related courses and concurrently works at a regular, paid, part-time or full-time job in a sponsoring business firm. Successful completion of the program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 150 Management Trainng	0	20	4
MGT 154 Management Seminar: Role of Supervision	2	0	2
MGT 151 Management Training	0	20	4
MGT 155 Management Seminar: Personnel Management	2	0	2
MGT 250 Management Training	0	20	4
MGT 254 Management Seminar: Organizational Development	2	0	2
MGT 251 Management Training	0	20	4
MGT 255 Management Seminar: Business Strategy, the Decision Process & Problem Solving	2	0	2
Electives			3
			27

Continued

PURCHASING MANAGEMENT OPTION

	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 160 Principles of Purchasing	3	0	3
MGT 220 Materials Management	3	0	3
MGT 280 Industrial Management	3	0	3
MGT 206 Principles of Marketing	3	0	3
MGT 224 Quality Assurance	3	0	3
BUS 234 Business Law	3	0	3
Elective**	6	0	6
			24

**Elective must be chosen from: BUS 237-Organizational Behavior, ACC 202-Principles of Accounting II, MGT 230-Salesmanship, MGT 233-Advertising and Sales Promotion, OFC 231-Business Communications, TRT 287-Physical Distribution Management I, MTH 202-Introductory Statistics.

SMALL BUSINESS MANAGEMENT OPTION

The Small Business Management option is designed to assist owners and managers of small businesses in developing skills and techniques necessary for operation. This option is also designed for students who plan to become owners or operators of small businesses. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
MGT 206 Principles of Marketing	3	0	3
MGT 153 Small Business Management	3	0	3
MGT 157 Small Business Bookkeeping & Accounting Practices	3	0	3
MGT 210 Small Business Capitalization, Acquisition & Finance	3	0	3
MGT 211 Small Business Operations	3	0	3
BUS 234 Business Law	3	0	3
Electives			9
			27

Suggested Electives
OFC 160, OFC 172, MGT 137, MGT 212, MGT 230.

OFFICE OCCUPATIONS

There are three options in the area of Office Occupations including: General Office Careers, Secretarial Careers and Legal Secretary. The options in General Office Careers and Secretarial Careers offer Certificate and Associate in Applied Arts and Sciences degrees. The Legal Secretarial program is an Associate in Applied Arts and Sciences Degree program only.

GENERAL OFFICE CAREERS OPTION

(Certificate Program)

A program designed for rapid entrance into the general office field.

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. Students should check the course descriptions in the catalog to determine which courses have prerequisites.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
OFC 162 Office Procedures	3	0	3
MTH 130 Business Mathematics	3	0	3
OFC 160 Office Machines	3	0	3
OFC 172 Beginning Typing*	2	3	3
or OFC 174 Intermediate Typing	(1)	(2)	(2)
COM 131 Applied Composition and Speech	3	0	3
or ENG 101 Composition & Expository Reading			
			14/15
SPRING SEMESTER I			
BUS 105 Introduction to Business	3	0	3
OFC 165 Introduction to Word Processing	3	0	3
OFC 174 Intermediate Typing*	1	2	2
or OFC 273 Advanced Typing			
OFC 231 Business Correspondence	3	0	3
COM 132 Applied Composition & Speech	3	0	3
or ENG 102 Composition & Literature			
ACC 131 Bookkeeping I	3	0	3
or ACC 201 Principles of Accounting I			
			17

* Placed according to skill.

GENERAL OFFICE

(Associate Degree Program)

Associate in Applied Arts and Sciences Degree — A program designed to enable advancement to responsible office positions.

This program is designed to train the student in office skills. Students completing the program will be qualified for positions as a clerk-typist, file clerk, receptionist, and word processing operator. This program does not include shorthand. There is a general orientation to the business world plus intensive training in typewriting, office machines, bookkeeping, and word processing. In the degree program, management principles and human relations skills are stressed which could lead to employment as a word processing supervisor or office manager.

To earn an Associate in Applied Arts and Sciences Degree, you must complete the courses listed in the Fall I and Spring I Semesters of the General Office Careers Certificate Program, plus the following:

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER II			
ACC 132 Bookkeeping II	3	0	3
or ACC 202 Principles of Accounting II			
OFC 273 Advanced Typing	1	2	2
or Elective*			
OFC 265 Word Processing Practices & Procedures	3	0	3
BUS 234 Business Law	3	0	3
BUS 237 Organizational Behavior	3	0	3
OFC 275 Secretarial Procedures	3	0	3
			17

* Elective only if Advanced Typing has been taken

SPRING SEMESTER II			
MGT 136 Principles of Management	3	0	3
HUM 101 Introduction to the Humanities	3	0	3
PSY 131 Human Relations	3	0	3
Electives	6	0	6
			15

Suggested Electives:
MGT 136, OFC 803, OFC 813, CS 175, ECo 201, PSY 105, SOC 101, OFC 143.

SECRETARIAL CAREERS OPTIONS

(Certificate Program)

Courses required for a Certificate of Completion are listed below. The courses may be taken in any order provided that prerequisites have been met. The student should check the course descriptions in the catalog to determine which courses have prerequisites. The program is designed for rapid entrance into the secretarial field.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
OFC 159 Beginning Shorthand†	3	2	4
or OFC 166 Intermediate Shorthand			
OFC 172 Beginning Typing†	2	3	3
or OFC 174 Intermediate Typing	(1)	(2)	(2)
OFC 160 Office Machines	3	0	3
ACC 131 Bookkeeping i	3	0	3
or ACC 201 Principles of Accounting I			
BUS 105 Introduction to Business	3	0	3
COM 131 Applied Composition & Speech	3	0	3
or ENG 101 Composition & Expository Reading	3	0	3
			18/19

Continued

SPRING SEMESTER I			
OFC 166 Intermediate Shorthand† or OFC 266 Advanced Shorthand	3	2	4
OFC 174 Intermediate Typing† OFC 273 Advanced Typing	1	2	2
OFC 162 Office Procedures	3	0	3
OFC 231 Business Communications	3	0	3
OFC 165 Introduction to Word Processing	3	0	3
MTH 130 Business Mathematics	3	0	3
			18

†Placed according to skill.

SECRETARIAL CAREERS

(Associate Degree Program)

Associate in Applied Arts and Sciences Degree — A program designed for advancement to the executive secretarial level.

The purpose of this program is to prepare the student to become an alert and responsive secretary capable of performing the tasks required in the modern business office. Intensive training is provided in the basic secretarial skills such as shorthand, typewriting, and office machines. Emphasis is also placed on English, math, and human relations skills. The student may elect to receive a certificate only, or may apply the courses required in this major toward an Associate in Applied Arts and Sciences Degree.

To earn an Associate in Applied Arts and Sciences Degree, you must complete the courses listed in the Fall I and Spring I semesters of the Secretarial Careers Certificate Program, plus the following:

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER II			
OFC 266 Advanced Shorthand or Elective*	3	2	4
OFC 265 Word Processing Practices & Procedures	3	0	3
OFC 273 Advanced Typing or Elective*	1	2	2
CS 175 Introduction to Computer Sciences	3	0	3
OFC 803 or OFC 804 Work Experience or Elective*	3-4		3-4
			15/16

* Electives only if Advanced Shorthand and Advanced Typing have been taken

SPRING SEMESTER II			
OFC 275 Secretarial Procedures	3	0	3
OFC 813 or OFC 814 Work Experience or Elective	3-4		3-4
COM 132 Applied Composition & Speech or ENG 102 Composition & Literature	3	0	3
HUM 101 Introduction to the Humanities	3	0	3
PSY 131 Human Relations	3	0	3
			15/16

Suggested Electives:
MGT 136, BUS 143, BUS 234, BUS 237, PSY 105, SPE 105, OFC 256.

BACHELOR'S DEGREE PROGRAM

Students who wish to continue their education at a four-year college, should consult a counselor to plan a program of studies to assure that this goal is reached.

CREDIT GIVEN FOR CPS RATING

Credit toward the Associate in Applied Arts and Sciences Degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

ACC 131 Bookkeeping I	3
OFC 159 Beginning Shorthand	4
OFC 162 Office Procedures	3
OFC 166 Intermediate Shorthand	4
OFC 172 Beginning Typing	3
OFC 174 Intermediate Typing	2
OFC 231 Business Communications	3
BUS 234 Business Law	3
OFC 275 Secretarial Procedures	3
PSY 131 Human Relations	3
	31

In order to receive credit, the applicant must:

1. Request direct notification be given to the Registrar of the College by the Institute for Certifying Secretaries that the applicant has passed all sections of the exam within the last 10 years.
2. Have earned 12 hours credit for courses at North Lake before the advanced standing credit is posted on the applicant's record.

LEGAL SECRETARY OPTION

(Associate Degree Program)

A program designed to prepare students for professional entry into the legal secretarial field.

Courses required for an Associate in Applied Arts & Sciences Degree in this area include completion of all Secretarial Careers Associate Degree courses and these two courses:

	LEC. HRS.	LAB. HRS.	CR. HRS.
OFC 167 Legal Terminology and Transcription	3	0	3
OFC 274 Legal Secretarial Procedures	3	0	3

OPTICAL TECHNOLOGY

The Optical Technology program is designed to prepare students for entry level employment in the optical manufacturing or optical dispensing fields:

Graduates should be able to operate machines, read optical specifications, perform quality control checks, and be able to communicate with customers. Students may specialize in either optical manufacturing or optical dispensing.

Students may elect to receive a certificate or may apply the certificate courses required in this program towards an Associate in Applied Arts and Sciences Degree.

OPTICAL TECHNOLOGY

(Certificate Program)

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
OPT 101 Ophthalmic Materials	3	0	3
OPT 102 Ophthalmic Grinding and Polishing	2	2	3
MTH 195 Technical Mathematics	3	0	3
OPT 103 Optical Lens Design and Measurements	3	0	3
OPT 104 Optical Lens and Frame Selection	2	2	3
	13	4	15
SPRING SEMESTER II			
PHY 131 Applied Physics	3	3	4
OPT 205 Anatomy and Physiology of the Eye	3	0	3
OPT 206 Introduction to Contact Lenses	3	0	3
OPT 207 Bifocals and Trifocals Lenses	2	2	3
	11	5	13
SUMMER SEMESTERS I & II (12 Weeks)			
OPT 703 Cooperative Training in a Lab	1	20	3
	1	20	3
FALL SEMESTER III			
OPT 208 Ophthalmic Laboratory Equipment	2	2	3
OPT 209 Dispensing Ethics	3	0	3
OPT 211 Optical Principles	3	0	3
OPT 803 or 813 Cooperative Training	1	15	3
	9	17	12
Total Credits Required for Certificate			43

OPTICAL TECHNOLOGY

(Associate Degree Program)

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
OPT 101 Ophthalmic Materials	3	0	3
OPT 102 Ophthalmic Grinding and Polishing	2	2	3
ENG 101 Composition and Expository Reading	3	0	3
OR			
COM 131 Applied Composition and Speech			
MTH 195 Technical Mathematics	3	0	3
PSY 131 Human Relations	3	0	3
	14	2	15
SPRING SEMESTER I			
OPT 103 Optical Lens Design and Measurements	3	0	3
OPT 104 Optical Lens and Frame Selection	2	2	3
GVT 201 American Government	3	0	3
OR			
HST 101 History of the United States			
PHY 131 Applied Physics	3	3	4
BUS 105 Introduction to Business	3	0	3
	14	5	16
SUMMER SEMESTERS I & II (12 Weeks)			
OPT 703 Cooperative Training in a Lab	1	20	3
FALL SEMESTER II			
OPT 205 Anatomy and Physiology of the Eye	3	0	3
OPT 206 Introduction to Contact Lenses	3	0	3
OPT 207 Bifocals and Trifocals Lenses	2	2	3
OPT 208 Ophthalmic Laboratory Equipment	2	2	3
OPT 803 Cooperative Training (Lab or Dispensing)	1	15	3
	11	19	15
SPRING SEMESTER II			
Lab Majors			
OPT 209 Dispensing Ethics	3	0	3
OPT 211 Opt. Principles	3	0	3
Elective	3	0	3
OPT 813 Cooperative Training	1	15	3
	10	15	12
Total Credits Required			61
Dispensing Majors			
OPT 210 Ophthalmic Fitting	3	0	3
OPT 212 Measurements	2	2	3
OPT 213 Occup. Eyewear	2	2	3
OPT 813 Cooperative Training	1	15	3
	8	19	12
Total Credits Required			61

PRECISION OPTICS TECHNOLOGY

(Associate Degree Program)

The Precision Optics Technology program is designed to prepare students for employment in the Precision Optics manufacturing field.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
POP 101 Intro. to Precision Optics Technology	3	0	3
POP 104 Industrial Shop Safety	3	0	3
MTH 195 Technical Mathematics	3	0	3
BPR 177 Blueprint Reading	1	3	2
COM 131 Applied Composition & Speech	3	0	3
			15
SPRING SEMESTER I			
POP 102 Precision Optics Machining I	2	2	3
POP 103 Precision Optics Machining II	2	2	3
POP 107 Precision Optics Handling and Cleaning	1	3	2
MTH 196 Technical Mathematics	3	0	3
PHY 131 Applied Physics	3	3	4
			15
FALL SEMESTER II			
POP 105 Precision Optics Machining III	2	2	3
POP 106 Thin Film Optical Coatings	3	3	4
POP 201 Basic Precision Optics Theory	3	0	3
HST 102 History of the United States	3	0	3
Elective			3
			16
SPRING SEMESTER II			
POP 203 Precision Optics Quality Control	3	0	3
POP 205 Advanced Precision Optics Processes	2	2	3
POP 204 Precision Optics Assembly	2	2	3
PSY 131 Human Relations	3	0	3
POP 703 Cooperative Work Experience	1	15	3
			15
Minimum Credits Required for an Associate Degree			60

REAL ESTATE

(Associate Degree Program)

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 Arts and Sciences degree.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
COM 131 Applied Composition & Speech or ENG 101 Composition & Expository Reading	3	0	3
BUS 105 Introduction to Business	3	0	3
MTH 130 Business Math or MTH 111	3	0	3
RE 130 Real Estate Principle	3	0	3
RE 131 Real Estate Finance	3	0	3
			15
SPRING SEMESTER I			
COM 132 Applied Composition & Speech or ENG 102 Composition & Literature	3	0	3
RE 133 Real Estate Marketing	3	0	3
RE 135 Real Estate Appraisal	3	0	3
RE 136 Real Estate Law	3	0	3
Elective (Psychology, Sociology or Human Development)	3	0	3
			15
FALL SEMESTER II			
ECO 201 Principles of Economics I	3	0	3
RE 230 Real Estate Office Management	3	0	3
†RE 250 Real Estate Internship I	0	20	4
RE 254 Real Estate Seminar I	2	0	2
Elective*			3
			15
SPRING SEMESTER II			
GVT 201 American Government	3	0	3
ACC 201 Principles of Accounting I	3	0	3
Elective*			9
			15
Minimum Hours Required for an Associate Degree			60

* Recommended Electives:

RE 233 Commercial & Investment Real Estate
RE 235 Property Management
ACC 202 Principles of Accounting II
DFT 185 Architectual Drafting
ECO 202 Principles of Economics
SPE 105 Fundamentals of Public Speaking
RE 240 Special Problems In Real Estate
RE 251 Real Estate Internship II
RE 255 Real Estate Seminar II

†Preliminary interview by Real Estate Coordinator required

RE 250 and RE 254 must be taken concurrently

RE 251 and RE 255 must be taken concurrently.

SOLAR ENERGY TECHNOLOGY (Associate Degree Program)

The Solar Energy Technology program prepares students for entry-level employment in the solar energy industry. Graduates of the program should be proficient in installation of new and retrofitted hot water and space heating systems, and repair and maintenance of these systems. Both air and hydronic systems will be covered.

Program graduates may choose an alternate career as a sales representative, a research assistant, or some other solar energy related position.

Enrollment in the program requires no previous experience or course work in air conditioning and refrigeration. However, previous experience in this field may enable the student to test-out or substitute courses with instructor approval.

	LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I			
ST 106 Introduction to Solar Energy	3	1	3
ST 107 Materials and Handling	2	3	3
AC 150 Basic Principles of Electricity	2	4	3
AC 150 Refrigerants	0	2	1
MTH 195 Technical Mathematics	3	0	3
DFT 182 Technical Drafting	1	3	2
			15
SPRING SEMESTER I			
ST 101 Energy Science I	3	3	4
ST 105 Collectors & Energy Storage	2	4	4
AC 171 Pipefitting Procedures	1	3	2
MTH 196 Technical Mathematics	3	0	3
AC 155 Advance Electrical Circuits	0	6	3
			16
FALL SEMESTER II			
ST 104 Energy Science II	3	3	4
ST 201 Sizing Design and Retrofit	3	3	4
COM 131 Applied Composition and Speech	3	0	3
AC 185 Residential Heating Systems	0	6	3
MTH 107 Fundamentals of Computing	3	0	3
			17
SPRING SEMESTER II			
ST 202 Operational Diagnosis	2	3	3
ST 203 Codes, Legalities, Economics, and Consumerism	2	0	2
ST 204 Technical Survey of Energy Sources	3	0	3
AC 180 Residential Cooling Systems	0	6	3
AC 241 Air Distribution - Cooling	0	2	1
BUS 105 Introduction to Business or *Approved Elective	3	0	3
PSY 131 Human Relations or *Approved Elective	3	0	3
			18
Minimum Hours Required for Associate Degree			66

†Approved Electives (approval by instructor and Division chair)
ST 803 and 813 — Cooperative Work Experience
ST 210 — Non-Residential Applications and Future Technology

Richland College

Curriculum Patterns
For Technical/Occupational Programs



ACCOUNTING ASSOCIATE

This two-year program is designed for persons interested in pursuing careers as junior accountants in business, industry, and government. Emphasis will be placed on internal accounting procedures and generally accepted accounting principles as they relate to external reporting with selected electives in cost accounting and tax accounting. Successful completion of the program leads to the associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
ACC 201	Principles of Accounting I	3	0	3
BUS 105	Introduction to Business	3	0	3
OFC 160	Office Machines	3	0	3
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
MTH 130	Business Mathematics or	3	0	3
MTH 111	Mathematics for Business and Economics I			
				15
SPRING SEMESTER I				
ACC 202	Principles of Accounting II	3	0	3
MGT 136	Principles of Management	3	0	3
CS 175	Introduction to Computer Sciences	3	0	3
COM 132	Applied Composition and Speech or	3	0	3
ENG 102	Composition and Literatrue			
**OFC 172	Beginning Typing or			3 or 4
ACC 713 or ACC 714 — Work Experience				
				15 or 16
FALL SEMESTER II				
ACC 203	Intermediate Accounting I	3	0	3
ACC 238	Cost Accounting or	3	0	3
ACC 239	Income Tax Accounting			
GOV 201	American Government	3	0	3
ECO 201	Principles of Economics I	3	0	3
ACC 803 or ACC 804 — Work Experience or Elective*				3 or 4
				15 or 16
SPRING SEMESTER II				
ACC 204	Managerial Accounting	3	0	3
BUS 234	Business Law	3	0	3
OFC 231	Business Communications	3	0	3
ECO 202	Principles of Economics II	3	0	3
ACC 813 or ACC 814 — Work Experience or Elective*				3 or 4
				15 or 16

*RECOMMENDED ELECTIVES

BUS 143	ACC 239
ACC 205	MGT 242
MGT 206	PSY 105
ACC 238	PSY 131

**Must have typing skills of 30 words per minute to be waived.

ACCOUNTING TECHNICIAN

The objective of this program is to provide the student with a working knowledge of bookkeeping procedures currently in use in business; to introduce the student to accounting principles supporting bookkeeping procedures; and to give the student practical bookkeeping experience by the use of problem solving. A certificate is awarded upon completion.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
BUS 105	Introduction to Business	3	0	3
ACC 131	Bookkeeping I	3	0	3
OFC 160	Office Machines	3	0	3
COM 131	Applied Composition and Speech	3	0	3
MTH 130	Business Mathematics	3	0	3
				15
SPRING SEMESTER				
ACC 132	Bookkeeping II	3	0	3
OFC 172	Beginning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
CS 175	Introduction to Computer Science	3	0	3
COM 132	Applied Composition and Speech	3	0	3
Elective*				3
				15 or 14

*RECOMMENDED ELECTIVES:

OFC 162
PSY 105
PSY 131

BANKING AND FINANCE — BANKING OPTION

The Banking and Finance program is designed to prepare students to enter the finance industry. Students completing the program would be prepared to assume positions in commercial banks, savings and loan associations, credit unions, and other financial organizations.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
BF 103	Introduction to Banking[3]	3	0	3
MGT 136	Principles of Management	3	0	3
COM 131	Applied Composition and Speech	3	0	3
ECO 201	Priciples of Economics I	3	0	3
Elective	(Select from general electives)*	3	0	3
				15
SPRING SEMESTER I				
BF 104	Money and Banking[1]	3	0	3
BF 105	Comparative Financial Institutions	3	0	3
ACC 201	Principles of Accounting I	3	0	3
ECO 202	Principles of Economics II	3	0	3
GVT 201	American Government	3	0	3
Elective	(Select from general electives)*	3	0	3
				18
FALL SEMESTER II				
BUS 237	Organizational Behavior	3	0	3
CS 175	Introduction to Computer Science	3	0	3
Elective	(Select from Banking Functions electives)**	9	0	9
ACC 202	Principles of Accounting II	3	0	3
				18
SPRING SEMESTER II				
BF 204 BF 205 BF 206	Federal Regulations of Banking[1] or Analyzing Financial Statements[1] or Negotiable Instruments and the Payments Mechanism[1]	3	0	3
BF 203	Public Relations & Marketing of Financial Services	3	0	3
OFC 231	Business Communications	3	0	3
Elective	(Select from General electives)*	3	0	3
Elective	(Select from Banking Functions electives)**	3	0	3
				15

BANKING FUNCTIONS ELECTIVES**		LEC. HRS.	LAB HRS.	CR. HRS
BF 110	The Federal Reserve System	3	0	3
BF 111	Trust Functions and Services	3	0	3
BF 112	Installment Credit	3	0	3
BF 113	Credit Card Banking	3	0	3
BF 114	Teller Training[2]	2	1	3
BF 115	Credit and Collection Principles	3	0	3
BF 116	Construction Lending	1	0	1
BF 117	Letters of Credit	2	0	2
BF 118	Installment Loan Interviews	1	0	1
BF 119	New Accounts	1	0	1
BF 120	Selling Bank Services	1	0	1
BF 121	Loss Prevention	1	0	1
BF 122	Safe Deposit	1	0	1
BF 123	Loan and Discount	1	0	1
BF 124	Stocks and Bonds	1	0	1
RE 131	Real Estate Finance	3	0	3
GENERAL ELECTIVES*				
INS 209	Principles of Insurance	3	0	3
BUS 105	Introduction to Business	3	0	3
MTH 130	Business Mathematics	3	0	3
BUS 143	Personal Finance	3	0	3
OFC 159	Beginning Shorthand	3	2	4
OFC 160	Office Machines	3	0	3
OFC 162	Office Procedures	3	0	3
OFC 166	Intermediate Shorthand	3	2	4
OFC 172	Beginning Typing	2	3	3
OFC 174	Intermediate Typing	1	2	2
BUS 234	Business Law	3	0	3
BF 713, 803, 813	Cooperative Work Experience[2]	1	15	3

[1]Course may be offered through American Institute of Banking (AIB)
[2]Enrollment only with consent of instructor
[3]Students may substitute "Principles of Bank Operations" (taken through the American Institute of Banking)

BANKING AND FINANCE

Credit and Financial Management Option

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
BF 101	Credit Management	3	0	3
COM 131	Applied Composition and Speech	3	0	3
MGT 136	Principles of Management	3	0	3
ECO 201	Principles of Economics I	3	0	3
Elective*		3	0	3
				15
SPRING SEMESTER I				
BF 115	Credit and Collection Principles	3	0	3
BUS 234	Business Law	3	0	3
ECO 202	Principles of Economics II	3	0	3
CS 175	Introduction to Computer Science	3	0	3
BF 105	Comparative Financial Institutions	3	0	3
				15
FALL SEMESTER II				
BF 201	Advanced Credit Analysis	3	0	3
BUS 237	Organizational Behavior	3	0	3
ACC 201	Principles of Accounting I	3	0	3
GOV 201	American Government	3	0	3
Elective*		3	0	3
				15
SPRING SEMESTER II				
BF 202	Credit Law	3	0	3
BF 203	Public Relations and Marketing of Financial Services	3	0	3
OFC 231	Business Communications	3	0	3
ACC 202	Principles of Accounting II	3	0	3
Elective*		3	0	3
				15

ELECTIVES

(9 Credits Required for Associate Degree)

		LEC. HRS.	LAB HRS.	CR. HRS.
BF 205	Analyzing Financial Statements*	3	0	3
BF 104	Money and Banking*	3	0	3
INS 209	Principles of Insurance*	3	0	3
MTH 130	Business Mathematics	3	0	3
BUS 143	Personal Finance*	3	0	3
OFC 159	Beginning Shorthand	3	2	4
OFC 160	Office Machines	3	0	3
OFC 162	Office Procedures	3	0	3
OFC 166	Intermediate Shorthand	3	2	4
OFC 172	Beginning Typing	2	3	3
OFC 174	Intermediate Typing	1	2	2
ACC 238	Cost Accounting*	3	0	3
BF 713 803, 813	Cooperative Work Experience**	1	15	3

* To qualify as a candidate for National Institute of Credit Fellow Award, students must complete required courses indicated in the 4 semesters plus one course from the Elective component of the curriculum designated by *

** Enrollment only with consent of instructor

BANKING AND FINANCE

Savings and Loan Option

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
BF 106	Introduction to the Savings Assoication Business	2	0	2
MGT 171	Introduction to Supervision	3	0	3
COM 131	Applied Composition & Speech	3	0	3
CS 175	Introduction to Computer Science	3	0	3
Elective*	3	0	3	
				14
SPRING SEMESTER I				
BF 107	Savings Association Operations	2	0	2
MGT 136	Principles of Management	3	0	3
ECO 201	Principles of Economics I	3	0	3
OFC 231	Business Communications	3	0	3
BF 105	Comparative Financial Institutions	3	0	3
Elective*	3	0	3	
				17
FALL SEMESTER II				
BF 207	Savings Account Administration	2	0	2
ACC 201	Principles of Accounting I	3	0	3
ECO 202	Principles of Economics II	3	0	3
BUS 237	Organizational Behavior	3	0	3
Elective*	3	0	3	
				14

Continued

SPRING SEMESTER II				
ACC 202	Principles of Accounting II	3	0	3
BF 203	Public Relations & Marketing of Financial Services	3	0	3
GVT 201	American Government	3	0	3
RE 130	Real Estate Principles	3	0	3
Elective*	3	0	3	
				15

*RECOMMENDED ELECTIVES:		LEC. HRS.	LAB. HRS.	CR. HRS.
BF 125	Savings Association Lending	3	0	3
BF 205	Analyzing Financial Statements	3	0	3
BF 115	Credit and Collection Principles	3	0	3
BF 114	Teller Training**	2	1	3
INS 209	Principles of Insurance	3	0	3
BUS 143	Personal Finance	3	0	3
OFC 162	Office Procedures	3	0	3
BUS 234	Business Law	3	0	3
MTH 130	Business Mathematics	3	0	3
RE 131	Real Estate Finance	3	0	3
RE 135	Real Estate Appraisal	3	0	3
BF 713, 803, 813 — Cooperative Work Experience**		1	15	3

* 12 Credit Hours Required for Associate Degree and to qualify for IFE Degree of Distinction

** Enrollment only with the consent of instructor

BANKING AND FINANCE — CREDIT UNION OPTION

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
BF 100	Introduction to the Credit Union Business	3	0	3
COM 131	Applied Composition and Speech	3	0	3
BF 105	Comparative Financial Institutions	3	0	3
ECO 201	Principles of Economics I	3	0	3
Elective	3	0	3	
				15
SPRING SEMESTER I				
BF 115	Credit and Collection Principles	3	0	3
BUS 234	Business Law	3	0	3
CS 175	Introduction to Computer Science	3	0	3
MGT 136	Principles of Management	3	0	3
Elective	3	0	3	
				15
FALL SEMESTER II				
BF 200	Credit Union Management and Administration	3	0	3
BUS 237	Organizational Behavior	3	0	3
ACC 201	Principles of Accounting I	3	0	3
GVT 201	American Government	3	0	3
Elective	3	0	3	
				15
SPRING SEMESTER II				
BF 208	Financial Counseling	3	0	3
BF 203	Public Relations and Marketing of Financial Services	3	0	3
OFC 231	Business Communications	3	0	3
ACC 202	Principles of Accounting II	3	0	3
Elective	3	0	3	
				15
ELECTIVES: (12 credits required for Associate Degree)				
BF 110	The Federal Reserve System			3
BF 113	Credit Card Banking			3
BF 114	Teller Training			3
BF 205	Analyzing Financial Statements			3
BF 206	Negotiable Instruments and the Payments Mech.			3
OFC 159	Beginning Shorthand or-			4
	(OFC 166 Intermediate Shorthand)			(4)
OFC 172	Beginning Typing or-			3
	(OFC 174 Intermediate Typing)			(2)
OFC 160	Office Machines			3
OFC 162	Office Procedures			3
INS 209	Principles of Insurance			3
RE 130	Real Estate Principles			3
RE 131	Real Estate Finance			3

CONSTRUCTION MANAGEMENT AND TECHNOLOGY

This program prepares the student for employment as a technician in a wide range of construction industry applications. Course content is designed to provide meaningful experiences in the construction industry at the management and site coordination level. Successful completion of this program leads to the associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
CMT 121	Construction Materials, Methods and Equipment I	2	3	3
CMT 132	Construction Industry	3	0	3
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
CMT 236	Building Codes and Safety	3	3	4
HD 107	Leadership or	3	0	3
HD 105	Human Development or			
PSY 105	Introduction to Psychology			
				16
SPRING SEMESTER I				
MTH 195	Technical Mathematics	3	0	3
CMT 124	Electrical and Mechanical Equipment for Buildings	3	3	4
CMT 122	Construction Materials, Methods and Equipment II	2	3	3
CMT 123	Construction Graphics	2	6	4
Elective*	3	0	3	
				17
FALL SEMESTER II				
CMT 231	Contracts and Specifications	2	3	3
CMT 136	Surveying and Measurements	2	6	4
CMT 138	Construction Management I	3	3	4
EGR 289	Mechanics of Structures	3	0	3
				14
SPRING SEMESTER II				
CMT 230	Quality Control and Cost Control	3	3	4
CMT 234	Estimating	2	6	4
CMT 237	Soils, Foundations, and Reinforced Concrete	3	3	4
CMT 238	Construction Management II	3	3	4
				16

*Recommended electives:
ACC 131
BUS 234
COM 132
PHY 131

DATA PROCESSING PROGRAMMER

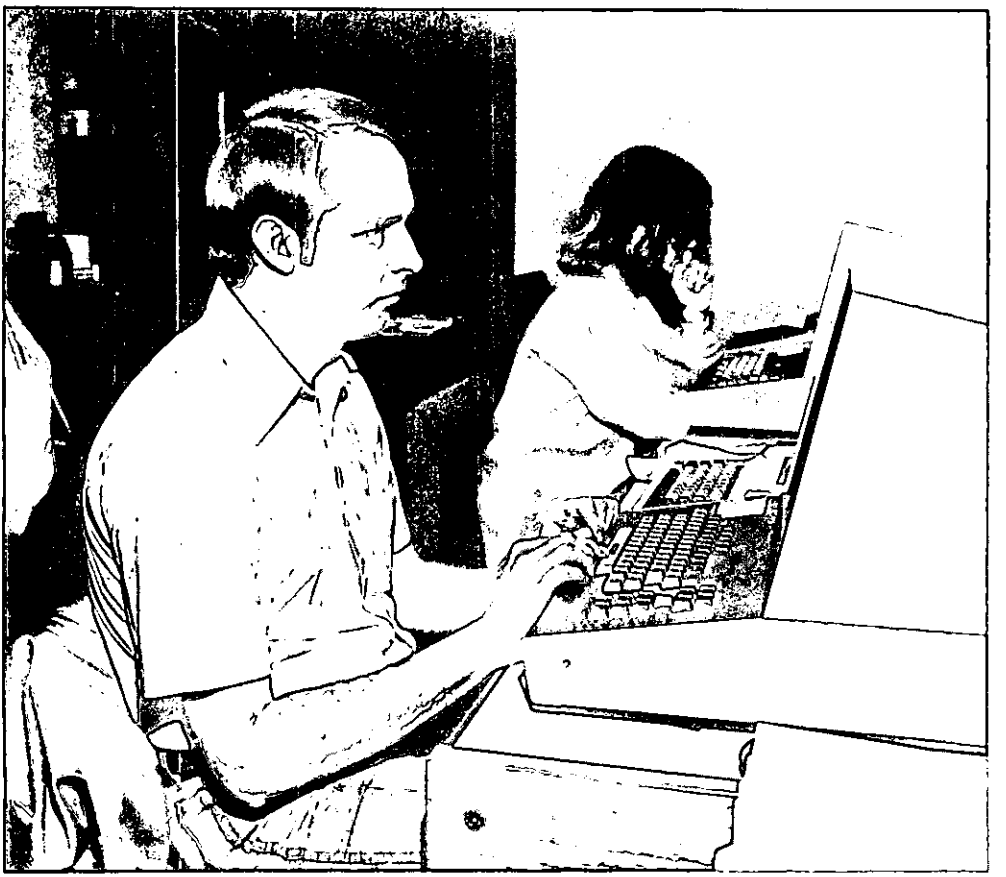
(Associate Degree in Applied Arts and Sciences)

This curriculum is intended for the preparation of students interested in systems work or other four-year degree programs. The curriculum includes many of the basic data processing courses as well as the basic requirements for four-year programs. There is a heavy emphasis on accounting. Students who plan to obtain baccalaureate degrees should determine what school they wish to transfer to and then seek the assistance of a counselor in planning their program to meet the requirements of the particular college to which they plan to transfer.

REQUIRED COURSES		LEC. HRS.	LAB. HRS.	CR. HRS.
FALL SEMESTER I				
CS 175	Introduction to Computer Science	3	0	3
DP 139	Technician	2	4	3
DP 137	Data Processing Math or			
MTH 130	Business Mathematics	3	0	3
COM 131	Applied Composition and Speech or			
ENG 101	Composition and Expository Reading	3	0	3
ACC 131	Bookkeeping I or			
ACC 201	Principles of Accounting I	3	0	3
SPRING SEMESTER I				
DP 133	Beginning Programming (COBOL)	3	4	4
DP 138	Data Processing Logic	3	0	3
BUS 105	Introduction to Business	3	0	3
ACC 202	Principles of Accounting II	3	0	3
COM 132	Applied Composition and Speech or			
ENG 102	Composition and Literature	3	0	3
FALL SEMESTER II				
DP 136	Intermediate Programming (COBOL)	3	4	4
DP 131	RPG Programming or			
CS 176	FORTRAN Programming	2	2	3
DP or CS elective (any 200 level DP or CS course)				3-4
DP 233	Operating Systems & Communications	3	4	4
ACC 203	Intermediate Accounting or			
ACC 238	Cost Accounting	3	0	3
SPRING SEMESTER II				
DP 231	Advanced Programming (ALC)	3	4	4
DP 232	Applied Systems	3	4	4
Approved elective (listed below)				3-4
ECO 201	Principles of Economics	3	0	3
				62-64

Approved Electives:

DP 129	Data Entry Concepts
MGT 136	Principles of Management
MGT 206	Principles of Marketing
BUS 234	Business Law
BUS 237	Organizational Behavior
ECO 202	Principles of Economics II
MTH 202	Introductory Statistics
CS 176	FORTRAN Programming
CS 250	Cont. Topics in CS
CS 251	Special Topics in CS & DP
DP 236	Advanced COBOL Techniques
CS 240	Telecommunications I
DP	(Cooperative Work Experience) 702, 712, 802, 812, 703, 713, 803, 813, 704, 714, 804, 814



EDUCATIONAL PARAPROFESSIONAL

This program is designed to prepare educational paraprofessionals in a wide range of competencies needed for effective roles in public and non-public schools. A student can take courses required for the one-year Educational Assistant Certificate and continue in the program to receive the two-year Educational Associate Degree or may work directly toward the Associate Degree.

Educational Paraprofessionals 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.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
EP 131	Introduction to Educational Processes I	3	0	3
EP 135	Arts and Crafts	3	0	3
	Support and Elective Courses as Appropriate			9-10
				15-16
SPRING SEMESTER I				
EP 129	Communication Skills for Educational Paraprofessionals	3	0	3
EP 134	Introduction to Media	2	2	3
EP 133	Introduction to Educational Processes II	3	0	3
	Support and Elective Courses as Appropriate			6-7
				15-16
FALL SEMESTER II				
EP 231	Educational Paraprofessional Seminar I	2	0	2
*EP 232	Educational Paraprofessional Practicum I	0	20	4
	Support and Elective Courses as Appropriate			10-11
				16-17
SPRING SEMESTER II				
EP 235	Educational Paraprofessional Seminar II	2	0	2
*EP 236	Educational Paraprofessional Practicum I	0	20	4
	Support and Elective Courses as Appropriate			10-11
				16-17

*May substitute EP 803, 804, 813, 814

Support Courses:
Communications (Twelve hours to be chosen from any of the following: Developmental Studies Reading and/or Writing, Communications 131-132, English 101-102 or sophomore level English courses).

EP 245, 246, 247 — Diversified Studies
HD 105
DM 090 or 091 or Math Elective

OFC 172	PSY 201	PEH 144
OFC 174	SOC 101	PEH 257
OFC 160	SOC 102	
PSY 105	PEH 101	

Art or Music (or courses occupationally appropriate and approved by the EP insturctor).

EDUCATIONAL PARAPROFESSIONAL (1-Year Program)

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
EP 131	Introduction to Educational Processes I	3	0	3
EP 135	Arts and Crafts	3	0	3
	Support and Elective Courses as Appropriate			9-10
				15-16
SPRING SEMESTER				
EP 129	Communication Skills for Educational Paraprofessionals	3	0	3
EP 134	Introduction to Media	2	2	3
EP 133	Introduction to Educational Processes II	3	0	3
	Support and Elective Courses as Appropriate			6-7
				15-16

NOTE: Students wishing to receive the one-year Educational Assistant Certificate must take the five EP courses listed above (EP 129, 131, 134, 133, 135) plus an additional fifteen credit hours as approved from the overall Educational Paraprofessional program for a total of thirty (30) semester credit hours.

Support Courses:
Communications (Twelve hours to be chosen from any of the following: Developmental Studies Reading and/or Writing, Communications 131-132, English 101-102, or sophomore level English courses).
EP 245, 246, 247 — Diversified Studies
HD 105
DM 090 or 091 or Math Elective

OFC 172	PSY 201	PEH 144
OFC 174	SOC 101	PEH 257
OFC 160	SOC 102	
PSY 105	PEH 101	

Art or Music (or courses occupationally appropriate and approved by the EP instructor).

ENGINEERING TECHNOLOGY

The engineering technology program provides the student with a broad educational background in several technical areas. During the first year a basic "core curriculum" is followed by all students. In the second year the student will specialize in one of the following areas: electric power, electro-mechanical, fluid power, or quality control. Also during the second year, the student may choose to participate in a cooperative educational program where college credit may be earned for related work experience. Successful completion of this two year program leads to the associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
SEMESTER I				
ET 190	DC Circuits and Electrical Measurements	3	3	4
QCT 121	Introduction to Quality Control	2	0	2
EGT 141	Basic Hydraulics and Fluid Mechanics	3	3	4
MTH 195	Technical Math	3	0	3
EGR 186	Manufacturing Processes	1	2	2
DFT 182	Technician Drafting or	1	3	2
DFT 183	Basic Drafting	2	6	4
				17 or 19
SEMESTER II				
ET 191	AC Circuits	3	3	4
EGT 142	Instrumentation & Testing	2	3	3
QCT 122	Dimensional Measurement	2	2	3
ET 193	Active Devices	3	3	4
EGT 143	Interpretation of Technical Data	3	3	4
				18
SEMESTER III				
COM 131	Applied Composition & Speech	3	0	3
*FLP 222	Fundamentals of Pneumatics	2	3	3
*EMT 233	Electrical Machinery	2	3	3
*EMT 229	Analog & Digital Circuits	3	3	4
	Technical Elective			2-4
				15-17
SEMESTER IV				
PHY 131	Technical Physics	3	3	4
*QCT 220	Physical & Environmental Testing	2	2	3
*EMT 232	Mechanisms & Drives	3	3	4
*EGT 240	Automatic Control Systems	2	3	3
	Technical Elective			2-4
				16-18

TECHNICAL ELECTIVES:

Electric Power majors:
ELP 244 Advanced Electric Power Systems
EMT 237 Electro-Mechanical Systems

Electro-Mechanical majors:
EMT 237 Electro-Mechanical Systems
EMT 239 Principles of Digital Control

Fluid Power majors:
FLP 225 Advanced Fluid Power Systems
EGR 187 Manufacturing Processes

Quality Control majors:
QCT 227 Non-Destructive Testing
QCT 236 Advanced Quality Control Systems

* A student may take Cooperative Work Experience in lieu of one second year course not in his or her major (excluding Technical Physics and Applied Composition and Speech). Prior division approval is required for this substitution.

ELECTRO-MECHANICAL CERTIFICATE PROGRAM

This one year program is designed to provide the student with basic technical skills for entry into the automated industrial environment. All of the courses required for the one-year certificate are applicable to the Engineering Technology Associate Degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FIRST SEMESTER				
ET 190	DC Circuits and Measurements	3	3	4
EGR 186	Manufacturing Processes	1	2	2
EGT 141	Basic Hydraulics and Fluid Mechanics	3	3	4
MTH 195	Technical Math	3	0	3
EMT 232	Mechanisms and Drives	3	3	4
				17
SECOND SEMESTER				
DFT 182	Technical Drafting	1	3	2
ET 191	AC Circuits	3	3	4
EGT 142	Instrumentation and Testing	2	3	3
ET 193	Active Devices	3	3	4
EMT 237	Electro-Mechanical Systems	2	3	3
EGR 187	Manufacturing Processes	1	2	2
				18

ELECTRIC POWER CERTIFICATE PROGRAM

A one-year program providing the student with skill and development opportunities in the Electric Power industry. All of the courses required for the one-year certificate are applicable to the Engineering Technology Associate Degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FIRST SEMESTER				
ET 190	DC Circuits and Measurements	3	3	4
MTH 195	Technical Mathematics	3	0	3
EGR 186	Manufacturing Processes	1	2	2
DFT 182	Technical Drafting	1	3	2
EMT 233	Electrical Machinery	2	3	3
				14
SECOND SEMESTER				
ET 191	AC Circuits	3	3	4
EGT 142	Instrumentation & Testing	2	3	3
EGT 240	Automatic Control Systems	2	3	3
ELP 244	Advanced Electric Power Systems	3	3	4
EMT 237	Electro-Mechanical Systems	2	3	3
				17

FLUID POWER CERTIFICATE PROGRAM

A one year program providing the student with skill and development opportunities in the field of hydraulics and pneumatics. All of the courses required for the one-year certificate are applicable to the Engineering Technology Associate Degree, Fluid Power Option.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FIRST SEMESTER				
EGT 141	Basic Hydraulics & Fluid Mechanics	3	3	4
ET 190	DC Circuits & Measurements	3	3	4
MTH 195	Technical Mathematics	3	0	3
DFT 182	Technical Drafting	1	3	2
EGR 186	Manufacturing Processes	1	2	2
				15
SECOND SEMESTER				
FLP 222	Fundamentals of Pneumatics	2	3	3
FLP 225	Advanced Fluid Power Systems	3	3	4
EGT 142	Instrumentation and Testing	2	3	4
EGT 240	Automatic Control Systems	2	3	3
EGR 187	Manufacturing Processes	1	2	2
				16

QUALITY CONTROL CERTIFICATE PROGRAM

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

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FIRST SEMESTER				
QCT 121	Introduction to Quality Control	2	0	2
QCT 122	Dimensional Measurement	2	2	3
EGT 141	Basic Hydraulics & Mechanics	3	3	4
EGR 186	Manufacturing Processes	1	2	2
MTH 195	Technical Mathematics	3	0	3
DFT 182	Technical Drafting	1	3	2
				16
SECOND SEMESTER				
EGT 143	Interpretation of Technical Data	3	2	4
QCT 227	Non-Destructive Testing	2	2	3
QCT 220	Physical/Environmental Testing	2	2	3
ET 190	DC Circuits	3	3	4
EGR 187	Manufacturing Processes	1	2	2
				16

INSURANCE OFFICE CAREERS

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
INS 108	Personal Lines —Auto CPL/Personal Umbrella	3	0	3
INS 109	Personal Lines —Homeowners/Fire/Marine	3	0	3
MTH 130	Business Mathematics	3	0	3
OFC 160	Office Machines	3	0	3
*OFC 172	Beginning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
				14-15
SPRING SEMESTER				
INS 110	Commercial Casualty — Workers Compensation/Commercial Auto	3	0	3
INS 111	TMP/Commercial Fire/General Liability	3	0	3
OFC 162	Office Procedures	3	0	3
**OFC 174	Intermediate Typing or Elective	1	2	2
OFC 231	Business Communications	3	0	3
OFC 803-804	Cooperative Work Experience	1	15-20	3-4
				17-18

*Students with previous training in typing will be placed according to ability.

**If student took OFC 174 first semester, will take an elective second semester.

RECOMMENDED ELECTIVES:

OFC 165	Introduction to Word Processing
OFC 273	Advanced Typing
CS 175	Introduction to Computer Science

MANUFACTURING ENGINEERING TECHNOLOGY

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
SEMESTER I				
MTH 195	Technical Mathematics	3	0	3
ET 190	DC Circuits	3	3	4
*BPR 177	Blueprint Reading I	1	3	2
EGR 186	Manufacturing Processes	1	2	2
DFT 183	Basic Drafting	2	6	4
				15
SEMESTER II				
MTH 196	Technical Mathematics	3	0	3
ET 191	AC Circuits	3	3	4
*BPR 178	Blueprint Reading II	1	3	2
EGR 187	Manufacturing Processes	1	2	2
*MS 133	Basic Lathe	1	8	5
				16
SEMESTER III				
*MS 134	Basic Milling Machine	1	8	5
QCT 121	Introduction to Quality Control	2	0	2
COM 131	Applied Composition and Speech	3	0	3
CS 175	Introduction to Computer Science	3	0	3
	Elective or Cooperative Work Experience			3 or 4
				16 or 17
SEMESTER IV				
MGT 136	Principles of Management	3	0	3
EGT 143	Interpretation of Technical Data	3	3	4
HD 105	Interpersonal Relations	3	0	3
MGT 171	Introduction to Supervision	3	0	3
	Elective or Cooperative Work Experience			3 or 4
				16 or 17

RECOMMENDED ELECTIVES

EGT 803 or 804 — Cooperative Work Experience
EGT 813 or 814 — Cooperative Work Experience

ECO 201	Principles of Economics I
QCT 122	Dimensional Measurement
ET 193	Active Devices
QCT 220	Physical and Environmental Testing
EGT 141	Basic Hydraulics
PHY 131	Applied Physics
HUM 101	Introduction to the Humanities
SS 131	American Civilization
SPE 105	Fundamentals of Public Speaking
COM 132	Applied Composition and Speech

*Denotes courses offered at Mountain View.

MANAGEMENT CAREERS

This business management program offers several options of study designed to develop the fundamental skills, knowledge, attitudes, and experiences which enable men and women to function in decision-making positions as supervisors or junior executives. Successful completion of this program leads to the Associate in Applied Arts and Sciences Degree.

CORE COURSES (Required for all options)		LEC. HRS.	LAB HRS.	CR. HRS.
BUS 105	Introduction to Business	3	0	3
ACC 201	Principles of Accounting I or	3	0	3
ACC 131	Bookkeeping I and	(3)	0	(3)
ACC 132	Bookkeeping II	(3)	0	(3)
ECO 201	Principles of Economics I	3	0	3
ECO 202	Principles of Economics II	3	0	3
CS 175	Introduction to Computer Science	3	0	3
MGT 136	Principles of Management	3	0	3
PSY 131	Human Relations	3	0	3
HUM 101	Introduction to the Humanities	3	0	3
				24-27

SUPPORT COURSES (Required for all options)				
COM 131	Applied Composition and Speech*	3	0	3
COM 132	Applied Composition and Speech*	3	0	3
	Social Science elective or Humanities elective	3	0	3
MTH 111	Math. for Business & Economics I or			
MTH 112	Math. for Business & Economics II or	3	0	3
MTH 130	Business Mathematics			
				12

ADMINISTRATIVE MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CR. HRS.
ACC 202	Principles of Accounting II	3	0	3
MGT 206	Principles of Marketing	3	0	3
BUS 234	Business Law	3	0	3
MGT 242	Personnel Administration	3	0	3
BUS 237	Organizational Behavior	3	0	3
OFC 231	Business Communications	3	0	3
Electives			9	
			27	

MID-MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CR. HRS.
MGT 150	Management Training	0	20	4
MGT 154	Management Seminar: Role of Supervision	2	0	2
MGT 151	Management Training	0	20	4
MGT 155	Management Seminar: Personnel Management	2	0	2
MGT 250	Management Training	0	20	4
MGT 254	Management Seminar: Organizational Development	2	0	2
MGT 251	Management Training	0	20	4
MGT 255	Management Seminar: Business Strategy, the Decision Process & Problem Solving	2	0	2
Elective			3	
			27	

SMALL BUSINESS MANAGEMENT OPTION		LEC. HRS.	LAB HRS.	CR. HRS.
MGT 206	Principles of Marketing	3	0	3
MGT 153	Small Business Management	3	0	3
MGT 157	Small Business Bookkeeping & Accounting Practices	3	0	3
MGT 210	Small Business Capitalization, Acquisition & Finance	3	0	3
MGT 211	Small Business Operations	3	0	3
BUS 234	Business Law	3	0	3
Electives			9	
			27	

SUGGESTED ELECTIVES:
OFC 160, OFC 172, MGT 137, MGT 212, MGT 230, MGT 233

* Students may substitute ENG 101 for COM 131 and ENG 102 for COM 132 with permission of the Division Chair. Students must take Speech 105 as an elective when substituting ENG 101 and 102.

OFFICE CAREERS — EDUCATIONAL SECRETARY

This program is designed to provide a sound educational basis for persons already employed or for persons desiring to enter employment in the field of education. Special emphasis will be placed on practical business methods, record-keeping, psychology of education and human relations. Upon completion of the courses in the curriculum pattern listed below, the student receives an associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
ACC 131	Bookkeeping I or	3	0	3
ACC 201	Principles of Accounting I			
OFC 160	Office Machines	3	0	3
OFC 159	Beginnning Shorthand or	3	2	4
OFC 166	Intermediate Shorthand			
OFC 140	Educational Processes	3	0	3
OFC 172	Beginning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
				18 or 19
SPRING SEMESTER I				
OFC 165	Introduction to Word Processing	3	0	3
OFC 162	Office Procedures	3	0	3
OFC 166	Intermediate Shorthand or	3	2	4
OFC 266	Advanced Shorthand			
HUM 101	Introduction to Humanities or	3	0	3
PSY 105	Introduction to Psychology or			
SOC 101	Introduction to Sociology			
OFC 174	Intermediate Typing or	1	2	2
OFC 273	Advanced Typing			
				15
FALL SEMESTER II				
OFC 273	Advanced Typing	1	2	2
OFC 231	Business Communications	3	0	3
MTH 130	Business Mathematics	3	0	3
GVT 201	American Government	3	0	3
OFC 803 or 804	Work Experience or Elective			3 or 4
				14 or 15
SPRING SEMESTER II				
OFC 141	Current Practical Problems	3	0	3
PSY 131	Human Relations	3	0	3
CS 175	Introduction to Computer Science	3	0	3
OFC 275	Secretarial Procedures	3	0	3
OFC 813 or 814	Work Experience or Elective			3 or 4
				15 or 16

RECOMMENDED ELECTIVES:

PEH 257	SPE 105
EP 134	BUS 143
BUS 105	

*Students with previous training in shorthand and/or typing will be placed according to ability.

PROFESSIONAL SECRETARY

The purpose of this program is to prepare students to become alert and responsive secretaries capable of performing the tasks required of them in the modern business office. Suggested electives are such that students may take courses which will allow specialities in secretarial areas such as law, selling, advertising, and accounting. Successful completion of the program leads to the associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
BUS 105	Introduction to Business	3	0	3
MTH 130	Business Mathematics	3	0	3
OFC 172	Beginning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
OFC 159	Beginning Shorthand or	3	2	4
OFC 166	Intermediate Shorthand			
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
				15 or 16
SPRING SEMESTER I				
OFC 174	Intermediate Typing or	1	2	2
OFC 273	Advanced Typing			
OFC 166	Intermediate Shorthand or	3	2	4
OFC 266	Advanced Shorthand			
OFC 162	Office Procedures	3	0	3
ACC 131	Bookkeeping or	3	0	3
ACC 201	Principles of Accounting I			
OFC 160	Office Machines	3	0	3
				15
FALL SEMESTER II				
OFC 266	Advanced Shorthand	3	2	4
OFC 273	Advanced Typing	1	2	2
OFC 165	Introduction to Word Processing	3	0	3
CS 175	Introduction to Computer Science	3	0	3
COM 132	Applied Composition and Speech or	3	0	3
ENG 102	Composition and Literature			
OFC 803 or 804	Cooperative Work Experience or			3 or 4
*Elective				
				18 or 19

Continued

SPRING SEMESTER II

OFC 265	Word Processing Practices & Procedures	3	0	3
OFC 275	Secretarial Procedures	3	0	3
OFC 231	Business Communications	3	0	3
PSY 131	Human Relations	3	0	3
OFC 813 or 814	Work Experience or			3 or 4
*Elective				
				15 or 16

RECOMMENDED ELECTIVES:

MGT 136	OFC 274	OFC 804	PSY 105	OFC 143
BUS 143	OFC 167	OFC 813	SPE 105	
BUS 234	OFC 803	OFC 814	BUS 237	

*Students with previous training in shorthand and/or typing will be placed according to ability.

**These classes are available at El Centro College only.

GENERAL OFFICE OCCUPATIONS

This two-year program is designed to train students for positions in the general office fields such as clerk-typist, file clerk, receptionist, and word processing operator. Management principles and human relations are stressed to enhance the students' opportunities for advancement into positions as word processing supervisors, office managers or administrative assistants.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
COM 131 ENG 101	Applied Composition and Speech or Composition and Expository Reading	3	0	3
OFC 160	Office Machines	3	0	3
OFC 172	Beginning Typing	2	3	3
BUS 105	Introduction to Business	3	0	3
MTH 130	Business Mathematics	3	0	3
				15
SPRING SEMESTER I				
COM 132 ENG 102	Applied Composition and Speech or Composition and Literature	3	0	3
ACC 131 ACC 201	Bookkeeping I or Principles of Accounting I	3	0	3
OFC 174	Intermediate Typing	1	2	2
OFC 162	Office Procedures	3	0	3
OFC 165	Introduction to Word Processing	3	0	3
				14
FALL SEMESTER II				
ACC 132	Bookkeeping II**	3	0	3
PSY 131	Human Relations	3	0	3
OFC 231	Business Communications	3	0	3
OFC 273	Advanced Typing	1	2	2
OFC 803 or 804	Cooperative Work Experience or Elective			3 or 4
				14 or 15
SPRING SEMESTER II				
OFC 275	Secretarial Procedures	3	0	3
CS 175	Introduction to Computer Science	3	0	3
OFC 265	Word Processing Practice & Procedure	3	0	3
BUS 234	Business Law	3	0	3
BUS 237	Organizational Behavior	3	0	3
OFC 813 or 814	Cooperative Work Experience or Elective	1	15-20	3 or 4
				18 or 19

RECOMMENDED ELECTIVES:

MGT 136	PSY 105
BUS 143	SOC 101
ECO 201	OFC 143

*Students may go into OFC 174 if they have had a year of typing in high school.
**This course does not have to be taken if ACC 201 has been completed.



OFFICE CAREERS — ADMINISTRATIVE SECRETARY

This program is designed for the person interested in being an assistant to the office administrator. Emphasis will be placed on developing the ability to make decisions and solve complex problems. The program is primarily designed for the office worker already working or for those who have had prior office work experience, such as file clerk, typist, stenographer, or secretary.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
OFC 273	Advanced Typing	1	2	2
OFC 266	Advanced Shorthand	3	2	4
OFC 162	Office Procedures	3	0	3
ACC 131	Bookkeeping I or	3	0	3
ACC 201	Principles of Accounting I			
MGT 136	Principles of Management	3	0	3
				15
SPRING SEMESTER				
OFC 275	Secretarial Procedures	3	0	3
OFC 231	Business Communications	3	0	3
MTH 130	Business Mathematics	3	0	3
SPE 105	Public Speaking	3	0	3
OFC 165	Introduction to Word Processing	3	0	3
Elective*		3	0	3
				18

SUGGESTED ELECTIVES:
BUS 234
BUS 237
OFC 160

OFFICE SKILLS AND SYSTEMS

This program is designed to meet the needs of those students who desire to enter a business career in a minimum of time. Intensive training in the basic office skills and systems is provided—including office machines, communications systems and other related business subjects. A general orientation to business is given.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
BUS 105	Introduction to Business	3	0	3
ACC 131	Bookkeeping I or	3	0	3
ACC 201	Principles of Accounting I			
OFC 172	Beginning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
OFC 160	Office Machines	3	0	3
				14-15
SPRING SEMESTER				
OFC 174	Intermediate Typing or	1	2	2
OFC 273	Advanced Typing			
OFC 162	Office Procedures	3	0	3
OFC 165	Introduction to Word Processing	3	0	3
COM 132	Applied Composition and Speech or	3	0	3
ENG 102	Composition and Literature			
OFC 231	Business Communications	3	0	3
MTH 130	Business Mathematics	3	0	3
				17

CREDIT GIVEN FOR CPS RATING

Credit toward an Associate Degree may be granted upon successful completion of all parts of the Certified Professional Secretary (CPS) Exam. The courses for which credit may be granted are:

ACC 131	Bookkeeping I	3
OFC 159	Beginning Shorthand	4
OFC 162	Office Procedures	3
OFC 166	Intermediate Shorthand	4
OFC 172	Beginning Typing	3
OFC 174	Intermediate Typing	2
OFC 231	Business Communications	3
BUS 234	Business Law	3
OFC 275	Secretarial Procedures	3
PSY 131	Human Relations	3
		31

In order to receive credit, the applicant must:

Request direct notification be given to the Registrar of the College by the institute for Certifying Secretaries that the applicant has passed all sections of the exam. Earned 12 hours credit for courses at Richland College before the advanced standing credit is posted on the applicant's record.

GENERAL SECRETARY

The purpose of this program is to prepare students with the basic skills necessary to enter the secretarial field. A certificate is issued upon completion of the program.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
BUS 105	Introduction to Business	3	0	3
OFC 160	Office Machines	3	0	3
OFC 172	Beginnning Typing or	2	3	3
OFC 174	Intermediate Typing	1	2	2
OFC 159	Beginning Shorthand or	3	2	4
OFC 166	Intermediate Shorthand			
COM 131	Applied Composition and Speech or	3	0	3
ENG 101	Composition and Expository Reading			
MTH 130	Business Mathematics	3	0	3
				18 or 19
SPRING SEMESTER				
*OFC 174	Intermediate Typing or	1	2	2
OFC 273	Advanced Typing			
*OFC 166	Intermediate Shorthand or	3	2	4
OFC 266	Advanced Shorthand			
OFC 162	Office Procedures	3	0	3
ACC 131	Bookkeeping I or	3	0	3
ACC 201	Principles of Accounting I			
OFC 165	Introduction to Word Processing	3	0	3
OFC 231	Business Communications	3	0	3
				18

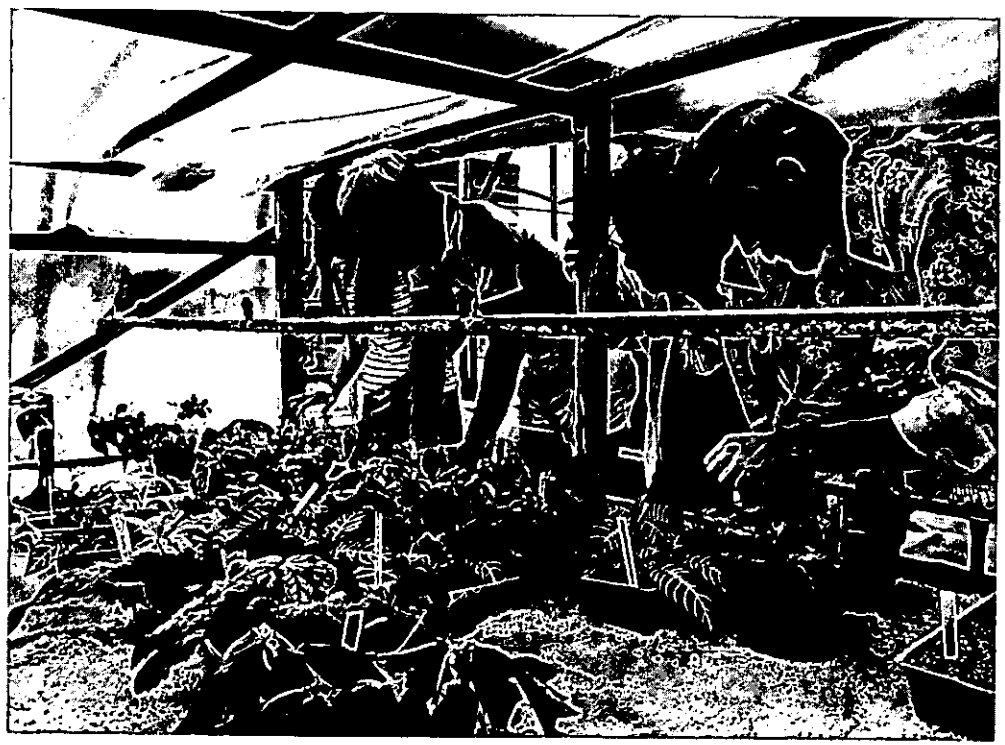
Note: In all secretarial careers programs, students with previous training in shorthand and typing will be placed according to ability. The last semester of typewriting and shorthand must be taken at Richland College.

*Students with previous training in shorthand and/or typing will be placed according to ability.

ORNAMENTAL HORTICULTURE TECHNOLOGY (FLORIST 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. Through the selection of electives and occupational experiences the student can guide his training toward specific jobs. Upon successful completion of the required courses the student will be eligible to receive a florist certificate.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
HLN 141	Floral Design	2	6	4
HLN 132	Landscape Plant Materials I	1	3	2
ART 110	Basic Design I	2	4	3
BUS 105	Introduction to Business			
MTH 130	Business Mathematics	3	0	3
				15
SPRING SEMESTER				
HLN 236	Florist Management	2	6	4
HLN 133	Landscape Plant Materials II	1	3	2
HLN 140	Herbaceous and Exotic Plants	2	3	3
HLN 239	Applied Horticulture Training	0	10	2
ACC 131	Bookkeeping I			
HLN 240	Seminar in Horticulture Occupations	2	0	2
				16



ORNAMENTAL HORTICULTURE TECHNOLOGY
GREENHOUSE FLORIST OPTION

This option prepares a student to enter the florist industry. The student may direct his training toward his own goals through the selection of appropriate electives and occupational experience. 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. Successful completion of this option will lead to an associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
HLN 131	Horticultural Science	3	3	4
HLN 132	Landscape Plant Materials I	1	3	2
BIO 115	Biological Science or	3	3	4
BIO 110	Introductory Botany			
COM 131	Applied Composition and Speech	3	0	3
MTH 195	Technical Mathematics	3	0	3
				16
SPRING SEMESTER I				
HLN 133	Landscape Plant Materials II	1	3	2
HLN 140	Herbaceous and Exotic Plants	2	3	3
CHM 115	General Chemistry or	3	3	4
PSC 118	Physical Science	3	2	4
ART 110	Basic Design I	3	0	3
BUS 105	Introduction to Business			
				15
FALL SEMESTER II				
HLN 235	Ornamental Woody Plant Propagation	1	3	2
HLN 226	Greenhouse Horticulture	2	3	3
HLN 141	Floral Design	2	6	4
MGT 230	Salesmanship	3	0	3
	Elective	3	0	3
				15
SPRING SEMESTER II				
HLN 234	Ornamental Crop Production	2	3	3
HLN 236	Florist Management	2	6	4
HLN 239	Applied Horticulture Training	0	10	2
ACC 131	Bookkeeping I			
HLN 240	Seminar in Horticulture Occupations	2	0	2
Elective		3	0	3
				17

ORNAMENTAL HORTICULTURE TECHNOLOGY
LANDSCAPE GARDENER CERTIFICATE

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER				
HLN 131	Horticulture Science	3	3	4
HLN 132	Landscape Plant Materials I	1	3	2
HLN 146	Fundamentals of Landscape Planning	1	6	3
BUS 105	Introduction to Business or			
MGT 153	Small Business Management	3	0	3
MTH 195	Technical Mathematics	3	0	3
				15
SPRING SEMESTER				
HLN 133	Landscape Plant Materials II	1	3	2
HLN 140	Herbaceous and Exotic Plants	2	3	3
HLN 145	Landscape Development	1	6	3
HLN 239	Applied Horticulture Training	0	10	2
HLN 240	Seminar in Horticulture Occupations	2	0	2
Elective		3	0	3
				15

ORNAMENTAL HORTICULTURE TECHNOLOGY
LANDSCAPE NURSERY OPTION

This option prepares a student to enter both the landscaping industry and the nursery industry at a technician level. The student may direct his training toward his own goals through the selection of electives and occupational experiences. The course places emphasis on those skills required for success in landscape service, nursery production and sales, and landscaping planning and contracting business. A student who completes this training is also well prepared for work in park and recreational departments, shopping center malls and industrial parks and gardens. The successful completion of this option leads to an associate in applied arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
HLN 131	Horticulture Science	3	3	4
HLN 132	Landscape Plant Materials I	1	3	2
BIO 115	Biological Science or	3	3	4
BIO 110	Introduction to Botany			
HLN 145	Landscape Development I	1	6	3
HLN 146	Fundamentals of Landscape Planning	1	6	3
				16
SPRING SEMESTER I				
HLN 147	Landscape Development II	1	6	3
HLN 133	Landscape Plant Materials II	1	3	2
HLN 140	Herbaceous and Exotic Plants	2	3	3
MTH 195	Technical Mathematics	3	0	3
CHM 115	General Chemistry or	3	3	4
PSC 118	Physical Science	3	2	4
				15
FALL SEMESTER II				
HLN 235	Ornamental Woody Plant Propagation	1	3	2
HLN 226	Greenhouse Horticulture	2	3	3
HLN 231	Landscape Design I	2	6	4
HLN 233	Nursery Operations	2	3	3
COM 131	Applied Composition and Speech	3	0	3
				15
SPRING SEMESTER II				
HLN 232	Landscape Planning and Management	2	6	4
HLN 234	Ornamental Crop Production	2	3	3
HLN 239	Applied Horticulture Training	0	10	2
ACC 131	Bookkeeping I	3	0	3
HLN 240	Seminar in Horticulture Occupations	2	0	2
BUS 105	Introduction to Business	3	0	3
				17

REAL ESTATE

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 arts and sciences degree.

CURRICULUM PATTERN		LEC. HRS.	LAB HRS.	CR. HRS.
FALL SEMESTER I				
COM 131	Applied Composition & Speech or	3	0	3
ENG 101	Composition & Expository Reading			
BUS 105	Introduction to Business	3	0	3
MTH 130	Business Mathematics or	3	0	3
MTH 111	Mathematics for Business & Economics I			
RE 130	Real Estate Principles	3	0	3
RE 131	Real Estate Finance	3	0	3
				15
SPRING SEMESTER I				
COM 132	Applied Composition & Speech or	3	0	3
ENG 102	Composition & Literature			
RE 133	Real Estate Marketing	3	0	3
RE 135	Real Estate Appraisal	3	0	3
RE 136	Real Estate Law	3	0	3
Elective	(Psychology, Sociology or Human Development)	3	0	3
				15
FALL SEMESTER II				
ECO 201	Principles of Economics I	3	0	3
RE 230	Real Estate Office Management	3	0	3
†RE 250	Real Estate Internship I	0	20	4
†RE 254	Real Estate Seminar I	2	0	2
Elective*		3	0	3
				15
SPRING SEMESTER II				
GVT 201	American Government	3	0	3
ACC 201	Principles of Accounting I	3	0	3
Elective*		9	0	9
				15
Minimum Hours Required for an Associate Degree				60

* Recommended Electives:

RE 233 Commercial Investment Real Estate
RE 235 Property Management
‡RE 251 Real Estate Internship II
‡RE 255 Real Estate Seminar II
ACC 202 Principles of Accounting II
ECO 202 Principles of Economics II
SPE 105 Fundamentals of Public Speaking
RE 240 Special Problems in Real Estate

†Preliminary interview by Real Estate Coordinator required

RE 250 and RE 254 must be taken concurrently

RE 251 and RE 255 must be taken concurrently

Course Descriptions

Including General Education
and Technical/Occupational Courses

for the Seven
Member Colleges
of the Dallas County
Community College District



IMPORTANT INSTRUCTIONS

- **All courses listed in this catalog are not available at every college.** This catalog contains descriptions of both General Education courses and Technical/Occupational courses offered collectively by the seven colleges of the Dallas County Community College District. The listing is alphabetical by course subject title.
- **Each course is coded to indicate the college through which it is offered.** Please note the following legend:

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

- **Courses without notation are approved for availability at every college.** However, please check the current college class schedules for availability during any given semester.
- **All courses listed in this catalog may not be offered during the current year.** It is suggested that students plan their schedules with the help of a college counselor well in advance of registration.

DEFINITION OF TERMS

The following terms are used throughout the catalog and particularly in this section of Course Descriptions. A brief explanation follows each term.

1. *Concurrent Enrollment* (a) Enrollment by the same student in two different colleges of the District at the same time, or (b) enrollment by a high school senior in a high school and one of the District colleges at the same time, or (c) enrollment by a student in two related courses in the same semester.
2. *Contact Hours* - The number of clock hours a student spends in a given course during the semester.
3. *Credit Hours* (Cr.) - College work is measured in units called credit hours. A credit hour value is assigned to each course and is normally equal to the number of hours the course meets each week. Credit hours are sometimes referred to as semester hours.
4. *Elective* - A course chosen by the student that is not required for a certificate or degree.
5. *Flexible Entry Course* - A course that permits beginning or ending dates other than the beginning or ending of the semester. Consult the class schedule for further information.
6. *Laboratory Hours* (Lab.) - The number of clock hours in the fall or spring semester the student spends each week in the laboratory or other learning environment.
7. *Lecture Hours* (Lec.) - The number of clock hours in the fall or spring semester the student spends each week in the classroom.
8. *Major* - The student's main emphasis of study (for example, Automotive Technology, Psychology, etc.)
9. *Performance Grades* - Grades assigned point values, including A, B, C, D, and F.
10. *Prerequisite* - A course that must be successfully completed or a requirement such as related life experiences that must be met before enrolling in another course.

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

ACCOUNTING (ACC) 131 (3)
BOOKKEEPING I (3 LEC.)

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

ACCOUNTING (ACC) 132 (3)
BOOKKEEPING II (3 LEC.)

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

ACCOUNTING (ACC) 201 (3)
PRINCIPLES OF ACCOUNTING I (3 LEC.)

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

ACCOUNTING (ACC) 202 (3)
PRINCIPLES OF ACCOUNTING II (3 LEC.)

Prerequisite: Accounting 201. Accounting procedures and practices for partnerships and corporations are studied. Topics include cost data and budget controls. Financial reports are analyzed for use by creditors, investors, and management.

ACCOUNTING (ACC) 203 (3)
INTERMEDIATE ACCOUNTING I (3 LEC.)

Prerequisite: Accounting 202. This course is an intensive study of the concepts, principles, and practice of modern financial accounting. Included are the purposes and procedures underlying financial statements.

ACCOUNTING (ACC) 204 (3)
MANAGERIAL ACCOUNTING (3 LEC.)

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

ACCOUNTING (ACC) 205 (3)
BUSINESS FINANCE (3 LEC.)

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.

ACCOUNTING (ACC) 207 (3)
INTERMEDIATE ACCOUNTING II (3 LEC.)

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.
ECC, RLC ONLY

ACCOUNTING (ACC) 238 (3)
COST ACCOUNTING (3 LEC.)

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. Budget, variance analysis, standard costs, and joint and by-product costing are also included.

ACCOUNTING (ACC) 239 (3)
INCOME TAX ACCOUNTING (3 LEC.)

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

ADVERTISING ART (ADV) 110 (3)
INTRODUCTION TO
ADVERTISING ART (48 CONTACT HOURS)

Available career options, job descriptions, and practice in concept generation and visual thinking are covered in this survey course. Discussions of the role of advertising in society are also included with emphasis on analysis of effective advertising materials. BHC ONLY

ADVERTISING ART (ADV) 111 (3)
HISTORY AND PSYCHOLOGY OF
VISUAL COMMUNICATIONS
(48 CONTACT HOURS)

This course provides the beginning student with a visual history of art styles, an understanding of the way in which visual images are perceived, and analytical skills in judging the effectiveness of such images. The critical appraisal skills learned in this context should enhance the student's ability to evaluate work in later courses. BHC ONLY

ADVERTISING ART (ADV) 120 (4)
LETTERING AND LAYOUT
(120 CONTACT HOURS)

Prerequisites: Art 110, 114 or concurrent enrollment in Art 111 or the consent of the instructor. This laboratory course includes construction of alphabets, introduction to typography, paste-up techniques, and layout formulas and rationales. Pencil, pen, and brush techniques are also covered. BHC ONLY

ADVERTISING ART (ADV) 121 (4)
BEGINNING ILLUSTRATION
(120 CONTACT HOURS)

Prerequisites: Art 110, 114 or concurrent enrollment in Art 111 or the consent of the instructor. The fundamentals of advertising are presented. Techniques for wet and dry media, methods of developing ideas, and requirements of some reproduction processes are included. Both acrylic painting techniques and airbrush are covered. Laboratory fee. BHC ONLY

ADVERTISING ART (ADV) 201 (4)
ILLUSTRATION FOR
REPRODUCTION (120 CONTACT HOURS)

Prerequisites: Advertising Art 120, 121or the consent of the instructor. This course emphasizes the preparation of illustration for reproduction by commercial printing processes. Requirements of paper selection, ink, and printing specifications are covered in the context of project assignments for advertisements. Laboratory fee. BHC ONLY

ADVERTISING ART (ADV) 202 (4)
ADVANCED ILLUSTRATION
(120 CONTACT HOURS)

Prerequisite: Advertising Art 121 or the consent of the instructor. This advanced course involves presentation and further development of the fundamentals of advertising illustration and techniques introduced in Advertising Art 121. Laboratory fee. BHC ONLY

ADVERTISING ART (ADV) 203 (4)
ADVANCED GRAPHIC DESIGN
(120 CONTACT HOURS)

Prerequisite: The consent of the instructor. Presentation techniques and requirements for newspapers and magazines, direct mail, poster, and packaging are covered in this advanced course. Emphasis is on typography. BHC ONLY

ADVERTISING ART (ADV) 204 (4)
ADVANCED PRESENTATIONS
(120 CONTACT HOURS)

Prerequisite: Advertising Art 203 or the consent of the instructor. This advanced course presents more complex problems dealing with packaging, brochures, annual reports, newspapers and magazines, specialty pieces, billboards, and corporate logos. Laboratory fee. BHC ONLY

ADVERTISING ART (ADV) 205 (3)
PROFESSIONAL PRACTICES
(48 CONTACT HOURS)

Prerequisite: The consent of the instructor. This course is open to advertising art students only. It is an advanced course covering a wide

range of professional practices. Agency, department store, free-lance and related procedures are included as well as job opportunities, job-seeking techniques, professional organizations, and other aspects of professional life. BHC ONLY

ADVERTISING ART (ADV) 711 (1)
(See Cooperative Work Experience)

ADVERTISING ART (ADV) 712 (2)
(See Cooperative Work Experience)

ADVERTISING ART (ADV) 703, 713 (3)
(See Cooperative Work Experience)

ADVERTISING ART (ADV) 704, 714 (4)
(See Cooperative Work Experience)

AIR CONDITIONING AND REFRIGERATION (ACR) 111 (3)
PRINCIPLES OF REFRIGERATION (2 LEC., 2 LAB.)

This course introduces the principles of refrigeration. Topics include terminology, heat and energy concepts, basic system components and operating characteristics, and installation procedures. Laboratory fee. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 112 (3)
PROPERTIES OF AIR (2 LEC., 2 LAB.)

Prerequisites: Air Conditioning and Refrigeration 111 and Mathematics 195. The thermodynamic properties of air are studied. Theories are applied to evaporative cooling, ventilation, humidity control, environmental conditions affecting human comfort, and health and industrial processes. Laboratory fee. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 113 (3)
FUNDAMENTALS OF ELECTRICITY (2 LEC., 3 LAB.)

Starting with basic wiring, wiring diagrams and symbols, this course includes electrical concepts of electron flow, resistance, voltage, current, power, and the construction and use of meters. The relation of electrical components to diagrams and applications to control circuits are emphasized. Laboratory fee. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 114 (3)
HEAT LOAD ANALYSIS (2 LEC., 2 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 115 (3)
UNIT AIR CONDITIONING SYSTEMS (2 LEC., 3 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 116 (3)
SUMMER AIR CONDITIONING SYSTEMS (2 LEC., 3 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 117 (3)
DOMESTIC REFRIGERATION (2 LEC., 2 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 118 (3)
WINTER AIR CONDITIONING SYSTEMS (2 LEC., 3 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 221 (3)
REFRIGERATION LOADS (2 LEC., 2 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 222 (3)
ADVANCED SYSTEMS (2 LEC., 3 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 223 (3)
MEDIUM TEMPERATURE REFRIGERATION SYSTEMS (2 LEC., 3 LAB.)

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. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 224 (3)
SYSTEM TESTING AND BALANCING (2 LEC., 2 LAB.)

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. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 227 (3)
LOW TEMPERATURE REFRIGERATION SYSTEMS (2 LEC., 3 LAB.)

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

AIR CONDITIONING AND REFRIGERATION (ACR) 228 (3)
AIR CONDITIONING SYSTEM EQUIPMENT SELECTION (2 LEC., 3 LAB.)

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. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 229 (3)
REFRIGERATION EQUIPMENT SELECTION (2 LEC., 2 LAB.)

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 conti-

nuity control, balancing, and efficiency. Laboratory fee. EFC ONLY

AIR CONDITIONING AND REFRIGERATION (ACR) 230 (3)
ENERGY CONSERVATION (2 LEC., 2 LAB.)

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

AIR CONDITIONING/ REFRIFERATION (AC) 150 (3)
BASIC PRINCIPLES OF ELECTRICITY (90 CONTACT HOURS)

This is a comprehensive course that includes air conditioning/refrigeration 151, 152, and 153. Students may register in the comprehensive course or any of the inclusive courses. This course is a study of the principles of electricity as applied in simple circuits and circuit components. Included are basic electrical units and test instruments. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 151 (1)
BASIC ELECTRICAL UNITS (30 CONTACT HOURS)

Basic electrical units are covered. Volts, ohms, amperes and watts are calculated and measured. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 152 (1)
SIMPLE CIRCUITS (30 CONTACT HOURS)

This course focuses on simple circuits. Topics include the interpretation of simple schematic and combination circuits with resistive loads. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 153 (1)
CIRCUIT COMPONENTS (30 CONTACT HOURS)

Components of circuits are examined. Circuits are constructed using switches, relays, solenoids, basic control and protective devices. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 155 (3)
ADVANCED ELECTRICAL CIRCUITS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 156 and 157. Students may register in the comprehensive course or either of the inclusive courses. Advanced electrical circuits are presented. Basic electrical principles are applied to the construction and diagnosis of complex electrical circuits and alternating current motors. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFIGERATION (AC) 156 (2)
COMPLEX CIRCUITS (60 CONTACT HOURS)

This course is an advanced study of complex circuits. Included are the construction and interpretation of complex schematics and the construction and diagonsis of complex electrical circuits with resistive, inductive and capacitive loads. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 157 (1)
A.C. MOTOR FUNDAMENTALS (30 CONTACT HOURS)

Magnetic principles as applied in AC motors are covered. Wiring, diagnosis, and service of AC motors are included, as well as starting and protective devices commonly used in the air conditioning industry. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC)160 (3)
BASIC PRINCIPLES OF REFRIGERATION (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 161, 162, and 163. Students may register in the comprehensive course or any of the inclusive courses. Principles of physics as applied to refrigeration systems are studied. Topics include thermodynamics, gas laws, heat transfer, and properties of air and refrigerants. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 161 (1)
ELEMENTARY PHYSICS AND THERMODYNAMICS (30 CONTACT HOURS)

This course presents the principles of thermodynamics, physics, and gas laws as applied to basic refrigeration systems. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 162 (1)
HEAT TRANSFER AND AIR PROPERTIES (30 CONTACT HOURS)

Principles of heat flow and heat transfer are covered. Included are simple load calculations, air properties and basic psychrometric chart construction. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 163 (1)
REFRIGERANT PROPERTIES (30 CONTACT HOURS)

Common refrigerant types are identified. Basic refrigerant properties are compared and the pressure-enthalpy diagram is constructed. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 165 (3)
VAPOR COMPRESSION SYSTEMS (90 CONTACT HOURS)

This course covers the various features of vapor compression systems. The major components, their function, and relationship are examined. Also presented are the four processes of the vapor compression and system service, including evacuation and charging. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 170 (3)
PIPEFITTING PROCEDURES (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 171 and 172. Students may register in the comprehensive course or either of the inclusive courses. Piping practices are studied. Topics include pipe size selection and techniques of soldering, silver-soldering and silver-brazing. Leak detection, and repair methods are also covered. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 171 (2)
PIPE AND FITTINGS (60 CONTACT HOURS)

This course presents piping practices. Topics include the identification and selection of correct pipe sizes and fittings and the construction of piping circuits using proper soft-solder, silver-solder, and silver-brazing techniques. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 172 (3)
LEAK DETECTION AND REPAIR (30 CONTACT HOURS)

The location and repair of refrigeration system leaks are covered. Correct repair methods and materials are emphasized. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 175 (3)
RESIDENTIAL LOAD CALCULATIONS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 176, 177, and 178. Students may register in the comprehensive course or any of the inclusive courses. This course is a study of heating and cooling load calculations for psychrometric chart construction and interpretation. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 176 (1)
COOLING LOAD CALCULATIONS (30 CONTACT HOURS)

Cooling load calculations for residences are presented. Topics include the identification of heat sources, calculation of heat transfer coefficients and calculation of the cooling load. Emphasis is on energy conservation. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 177 (1)
HEATING LOAD CALCULATIONS— RESIDENTIAL (30 CONTACT HOURS)

Heating load calculations for residences are presented. Topics include the identification of sources of heat loss, calculation of heat transfer coefficients, and calculation of the heating load. Emphasis is on energy conservation. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 178 (1)
AIR PROPERTIES— RESIDENTIAL (30 CONTACT HOURS)

Measurement of residential air properties is covered. Included are the plotting and interpretation of psychrometic charts and identification of methods of humidity control. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 180 (3)
RESIDENTIAL COOLING SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 181, 182, and 183. Students may register in the comprehensive course or any of the inclusive courses. This course presents principles of refrigeration for residential cooling systems. Emphasis is on compressors, condensers, evaporators, metering devices, electrical components, and the reverse cycle system (heat pump). Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 181 (1)
REFRIGERATION SYSTEMS- RESIDENTIAL (30 CONTACT HOURS)

Types of cooling systems for residences are covered. Major components are included, such as compressors, evaporators, condensers, and metering devices with emphasis on acceptable piping practices. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 182 (1)
ELECTRICAL SYSTEMS- RESIDENTIAL COOLING (30 CONTACT HOURS)

The componets of the electrical system for residential cooling are presented. Topics include electrical control devices, protective devices and AC motors. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 183 (1)
REVERSE CYCLE SYSTEMS (30 CONTACT HOURS)

This course is a study of the residential heat pump and its use in summer/ winter air conditioning. The electrical and mechanical system is included. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 185 (3)
RESIDENTIAL HEATING SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/ Refrigeration 186, 187, and 188. Students may register in the comprehensive course or any of the inclusive courses. Principles and procedures used in residential heating systems are studied. Emphasis is on the gas and electric warm-air furnace. Included are the mechanical and electrical components of the heating systems. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 186 (1)
WARM-AIR FURNACE— GAS (30 CONTACT HOURS)

The gas warm-air furnace is examined. Included are the diagnosis and service of heat exchangers, burner assemblies and gas valves. The combustion process, vent systems and safety procedures are also studied. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 187 (1)
WARM-AIR FURNACE— ELECTRIC (30 CONTACT HOURS)

The electric warm-air furnace is examined. Included are the principles and practices of resistance heating, the components of the system, and their relationship. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 188 (1)
ELECTRICAL SYSTEMS— HEATING (30 CONTACT HOURS)

The electric heating systems are examined. Included are the identification and diagnosis of individual components of the electrical system and the relationship of the components to the system. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 190 (3)
COMMERCIAL REFRIGERATION SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/ Refrigeration 191, 192, and 193. Students may register in the comprehensive courses or in any of the inclusive courses. This course is a study of commerical refrigeration systems. Topics include system components such as flow-control and pressure control devices, defrost systems and humidity control. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 191 (1)
INTRODUCTION TO COMMERCIAL REFRIGERATION SYSTEMS (30 CONTACT HOURS)

Commercial refrigeration systems are presented. Emphasis is on systems common to light commerical fixtures. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 192 (1)
SYSTEM COMPONENTS— COMMERCIAL REFRIGERATION (30 CONTACT HOURS)

Major components of commercial systems are studied. Included are compressors, flow control, pressure control devices and the relationship of the components to the total system. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 193 (1)
DEFROST SYSTEMS AND HUMIDITY CONTROL (30 CONTACT HOURS)

This course covers the diagnosis, service, repair and replacement of components of defrost systems. Air properties and humidity control are included. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC)195 (3)
COMMERCIAL REFRIGERATION SYSTEMS SERVICE (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/ Refrigeration 196, 197, and 198. Students may register in the comprehensive course or in the inclusive courses. This course presents the service of commerical refrigeration systems. Topics include the principles and practices for fixture installations, pipe-fitting procedures, leak detection and repair, evacuation and system charging for peak performance, system lubrication at low temperatures, and diagnosis and service of electrical system components. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 196 (1)
INSTALLATION PROCEDURES— COMMERCIAL REFRIGERATION (30 CONTACT HOURS)

Principles and practices for fixture installation are studied. Included are pipe-fitting procedures with emphasis on oil return. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 197 (1)
SYSTEM SERVICE AND REPAIR— COMMERCIAL REFRIGERATION (30 CONTACT HOURS)

System leaks are located and repaired. Also included are system evacuation and the refrigerant charge for peak performance. The diagnosis, and service of system components, such as compressors, evaporators, condensers, metering devices, and defrost mechanisms, are covered. Laboratory fee.CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 240 (3)
AIR DISTRIBUTION SYSTEM— RESIDENTIAL (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 241, 242 and 243. Students may register in the comprehensive course or any of the inclusive courses. Principles and practices of acceptable air distribution systems are presented. Topics include flow patterns, velocity volume and stratification for heating and cooling applications. Filter service, electronic air cleaners and humidifiers are also studied. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 198 (1)
ELECTRICAL SYSTEMS SERVICE— COMMERCIAL REFRIGERATION (30 CONTACT HOURS)

This course focuses on the servicing of electrical systems in commercial refrigeration. Included are the diagnosis, service, repair and replacement of components of electrical systems. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 241 (1)
AIR DISTRIBUTION— COOLING (30 CONTACT HOURS)

Air distribution for residential cooling is studied. Topics include air flow, velocity, volume, flow patterns, methods of air distribution and system balance for best performance. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 242 (1)
AIR DISTRIBUTION— HEATING (30 CONTACT HOURS)

Air distribution for residential heating is studied. Topics include air flow, velocity, volume, flow patterns, methods of air distribution and system balance for best performance. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 243 (1)
ELECTRONIC AIR CLEANERS AND HUMIDIFIERS (30 CONTACT HOURS)

This course examines the principles of electronic air cleaners and humidifiers. Included are the service and adjustment of air cleaners and humidifiers and their use in environmental conditioning. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 245 (3)
RESIDENTIAL SYSTEMS SERVICE (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 246 and 247. Students may register in the comprehensive course or either of the inclusive courses. The servicing of residential air conditioning systems is presented. Topics include the service, adjustment, repair and replacement of system components. Installation procedures are also covered. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 246 (2)
SYSTEMS SERVICE AND REPAIR— RESIDENTIAL (60 CONTACT HOURS)

This course focuses on the diagnosis, service, repair and replacement of air conditioning system components. Included are leak detection and repair, evaluation and charging procedures and adjustment of systems for peak performance. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 247 (1)
INSTALLATION PROCEDURES— RESIDENTIAL (30 CONTACT HOURS)

This course focuses on the installation of air conditioning systems. Included is the application of correct piping principles. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 250 (3)
AIR CONDITIONING EQUIPMENT SELECTION (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 251 and 252. Students may register in the comprehensive course or in either of the inclusive courses. Selection of the proper air conditioning equipment is presented. Topics include the calculation of residential cooling and heating loads using approved forms and the selection of equipment required for the calculated loads. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 251 (2)
ADVANCED LOAD CALACULATIONS (60 CONTACT HOURS)

This course focuses on the calulation of residential cooling and heating loads using the approved forms. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 252 (1)
PROCESS EQUIPMENT SELECTION (30 CONTACT HOURS)

This course focuses on the selection of residential air conditioning equipment to meet the calculated loads. Included is selection of the condensing unit, evaporator coil, and warm-air furnace (or heat pump). Emphasis is on energy conservation. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 255 (3)
AIR DISTRIBUTION SYSTEMS DESIGN (90 CONTACT HOURS)

This course is a comprehensive course that includes Air Conditioning/ Refrigeration 256 and 257. Students may register in the comprehensive course or either of the inclusive courses. The custom design of air distribution systems according to the particular needs of the structure is covered. Included are advanced psychrometrics, duct design, diffuser selection and air-flow patterns. Laboratory fee.CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 256 (1)
ADVANCED PSYCHROMETRICS— RESIDENTIAL (30 CONTACT HOURS)

This course is the specific study of advanced psychrometrics for residential use. Included are use of the psychrometric chart in air mixtures problems, apparatus dew point and bypass factor selection, air properties and the determination of actual system performance. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 257 (2)
AIR DISTRIBUTION EQUIPMENT SELECTION (60 CONTACT HOURS)

This course is the specific study of equipment selection as indicated by calculated heating and cooling loads. Topics include the selection of air distribution duct systems, diffusers and air-flow patterns. Emphasis is on energy conservation. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 260 (3)
SPECIAL COMMERCIAL REFRIGERATION APPLICATIONS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 261, 262 and 263. Students may register in the comprehensive course or in any of the inclusive courses. Commercial refrigeration principles are applied to special cases. Included are ice makers (flakers and cubers), beverages coolers and special display cases. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 261 (1)
ICE MAKERS—
FLAKERS (30 CONTACT HOURS)

This course focuses on ice makers (flakers). Topics include the diagnosis, service, repair and replacement of components of ice makers (flakers). Emphasis is on mechanical and control systems. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 262 (1)
ICE MAKERS—
CUBERS (30 CONTACT HOURS)

This course focuses on ice makers (cubers). Topics include the diagnosis, service, repair and replacement of components of ice makers (cubers). Emphasis is on harvest methods and control systems. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 263 (1)
BEVERAGE COOLERS AND SPECIAL DESPLAY CASES (30 CONTACT HOURS)

This course focuses on beverage coolers and special display cases. Topics include the diagnosis and service of beverage coolers, water fountains, dairy cases and special display cases that require close temperature and/or humidity ranges. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 265 (3)
ADVANCED COMMERCIAL REFRIGERATION SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 266 and 267. Students may regeister in the comprehensive course or in either of the inclusive courses. Advanced commercial refrigeration systems are presented. Included are multiple compressors, evaporators, condensers and metering devices. Product and structural loads are calculated and analyzed. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 266 (1)
MULTIPLE SYSTEMS (30 CONTACT HOURS)

This course covers multiple systems. Included are the diagnosis, service, repair and replacement of components of the multiple compressor, evaporator, condenser, and metering device system. Emphasis is on control systems. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 267 (2)
PRODUCT AND STRUCTURAL LOAD ANALYSIS (60 CONTACT HOURS)

This course covers the calculation and analysis of product and structrual loads. The relationship of these loads to the total environmental system is included. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 270 (3)
INDUSTRIAL AIR CONDITIONING SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 271, 272 and 273. Students may register in the comprehensive course or in any of the inclusive courses. Industrial air conditioning systems are surveyed. Topics include the principles and operation of water-cooled condensing systems, water-treatment, water towers and piping. Also included are centrifugal and reciprocating compression systems. Absorption system principles are applied to industrial air conditioning. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 271 (1)
WATER-COOLED CONDENSING SYSTEM (30 CONTACT HOURS)

This course examnes water-cooled condensing systems, water towers and water treatment. Applicable principles, pipe-sizing and piping practices are covered. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 272 (1)
CENTRIFUGAL AND RECIPROCATING COMPRESSOR SYSTEMS (30 CONTACT HOURS)

This course examines the principles and operation of centrifugal and large reciprocating compressor systems. Emphasis is on the compressor components. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 273 (1)
PRINCIPLES OF ABSORPTION SYSTEMS (30 CONTACT HOURS)

This course examines the principles of absorption systems. Topics include the identification of components, operational theory of absorption systems and advantages and disadvantages of industrial absorption systems. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 275 (3)
INDUSTRIAL AIR CONDITIONING SERVICE (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 276, 277, and 278. Students may register in the comprehensive course or any of the inclusive courses. The servicing of industrial air conditioning systems is presented. Included are the service, repair and replacement of capacity control systems and lubrication systems. Also covered are principles and practices of refrigerant circuit piping, leak detection and repair, evacuation and system charging for best performance, and preventive maintenance and schedules. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 276 (1)
CAPACITY CONTROL AND LUBRICATION SYSTEMS (30 CONTACT HOURS)

This course focuses on the adjustment, service, repair, and replacement of components of capacity control systems. Lubrication systems and oil pressure control devices are included. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 277 (1)
REFRIGERANT CIRCUIT SERVICE (30 CONTACT HOURS)

This course focuses on refrigerant circuit service. Included are leak detection and repairs, evacuation, charging procedures for best system performance and piping principles and practices. Laboratory fee.
CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 278 (1)
PREVENTIVE MAINTENANCE PROCEDURES (30 CONTACT HOURS)

This course focuses on system components requiring preventive maintenance. The preparation of preventive maintenance schedules is covered. Laboratory fee.

AIR CONDITIONING/ REFRIGERATION (AC) 280 (3)
HYDRONIC SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 281 and 282. Students may register in the comprehensive course or in either of the inclusive courses. Hydronic air conditioning systems are studied. Water chiller, and low-pressure boiler systems are included. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 281 (1)
WATER CHILLERS (30 CONTACT HOURS)

This course covers specifically the principles of operation and service of systems using water chillers as a secondary refrigerant. Control and protective devices are included. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 282 (2)
LOW-PRESSURE BOILERS (60 CONTACT HOURS)

This course covers specifically low-pressure boilers. Included are the combustion process, burner assemblies, fuel circuit devices, heat exchanger control and protection devices. The electrical system is also studied. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 285 (3)
ADVANCED INDUSTRIAL AIR CONDITIONING SYSTEMS (90 CONTACT HOURS)

This is a comprehensive course that includes Air Conditioning/Refrigeration 286, 287, and 288. Students may register in the comprehensive course or in any of the inclusive courses. Advanced industrial air conditioning systems are presented. Applied psychrometrics in air mixtures, coil by-pass factors, evaporator coil dew point, total system load are included. Multi-zone systems, air distribution systems, and air balancing are covered. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 286 (1)
ADVANCED PSYCHROMETRICS—INDUSTRIAL AIR CONDITIONING (30 CONTACT HOURS)

Use of the psychrometric chart and air-measuring instruments in air mixtures, evaporator coil performance, calculating total system load and balancing system components. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 287 (1)
MULTI-ZONE SYSTEMS (30 CONTACT HOURS)

This course examines multi-zone systems. Topics include components of the multi-zone system, operational and diagnostic procedures, and balancing system performance. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 288 (1)
AIR DISTRIBUTION SYSTEMS AND AIR BALANCING (30 CONTACT HOURS)

This course examines air distribution systems and air balancing. Principles of industrial air conditioning distribution systems, flow patterns, face and by-pass dampers are included as well as air balancing for total system performance. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING/ REFRIGERATION (AC) 290 (3)
INDUSTRIAL AIR CONDITIONING CONTROL SYSTEMS (90 CONTACT HOURS)

Control systems for industrial air conditioning are presented. Included are the diagnosis, service, repair and replacement of components of electrical, pneumatic, and electronic control systems. Emphasis is on control system principles. Laboratory fee. CVC, NLC ONLY

AIR CONDITIONING (AC) 703, 713, 803, 813 (3)
(See Cooperative Work Experience)

AIR CONDITIONING (AC) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

ALLIED HEALTH TECHNOLOGY (AHT) 100 (4)
INTRODUCTION TO ALLIED HEALTH TECHNOLOGY (3 LEC., 3 LAB.)

Prerequisite: Admission to the program. This course provides an introduction to the Allied Health Technology Program. Emphasis is placed on medical terminology, basic word structure. pronunciation, spelling, and definition of medical terms. An orientation to clinical hospital affiliates includes demonstration and observation in selected laboratory settings. Laboratory fee. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 110 (3)
INTRODUCTION TO THE HEALTH CARE DELIVERY SYSTEM (3 LEC.)

Prerequisite: Admission to the program. This course provides an introduction to the health care delivery system. Topics to be discussed include the history of medicine, the principles of medical ethics and law, biomedical instrumentation with emphasis on safety and quality control. Also, a pharmacology overview is presented. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 120 (3)
INTERDISCIPLINARY CONCEPTS (3 LEC.)

Prerequisites: Allied Health Technology 100 and 110. This course provides a basic background in the pathophysiology of disease processes and the dynamics of human behavior. Topics presented will include the development of diseases, developmental theories, coping behaviors, treatment modalities, and group process. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 130 (4)
INTERDISCIPLINARY LABORATORY SKILLS (3 LEC., 3 LAB.)

Prerequisites: Allied Health Technology 100 and 110. This course provides experience in interdisciplinary allied health laboratory skills. An introduction to microtechniques, cell structure, processing techniques, medical procedures, communication skills, and emergency care is presented and demonstrated. Laboratory fee. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 200 (6)
INTRODUCTION TO HISTOTECHNOLOGY (1 LEC., 35 LAB.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides an orientation to histotechnology laboratory procedures and policies. Emphasis is placed on supervised practical experience with selected laboratory equipment. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 206 (4)
HISTOLOGIC TECHNIQUES (4 LEC.)

Prerequisites: "C" or better in Allied Health Technology 200. This course provides theory and basic techniques in the areas of fixation, processing, staining, and microtomy. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 210 (6)
HISTOTECHNOLOGY PRACTICUM I (16 LAB.)

Prerequisites: "C" or better in Allied Health Technology 200. This course provides the student with supervised laboratory experience in an assigned hospital histology laboratory. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 215 (1)
RECORDS AND ADMINISTRATION (1 LEC., 2 LAB.)

Prerequisites: "C" or better in Allied Health Technology 206 and 210. This course provides experience in histology record keeping and administration. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 216 (6)
HISTOTECHNOLOGY PRACTICUM II (16 LAB.)

Prerequisites: "C" or better in Allied Health Technology 206 and 210. This course is a continuation of Histotechnology Practicum I providing the student with supervised laboratory experience in an assigned hospital histology laboratory. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 218 (5)
SPECIAL TECHNIQUES (5 LEC.)

Prerequisites: "C" or better in Allied Health Technology 206 and 210. This course provides instruction in histological special staining and techniques. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 220 (5)
NUCLEAR MEDICINE PHYSICS (4 LEC., 4 LAB.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides an introduction to nuclear medicine physics. Atomic theory, radiation safety, radiation detection instruments, and imaging devices are some of the topics discussed. Techniques are demonstrated in laboratory sessions. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 224 (4)
CLINICAL NUCLEAR MEDICINE (3 LEC., 4 LAB.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides an introduction to the history of nuclear medicine and basic theory and methodology of diagnostic nuclear medicine procedures. Techniques are demonstrated in laboratory sessions. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 226 (3)
RADIOCHEMISTRY-PHARMACY I (2 LEC., 4 LAB.)

Prerequisites: "C" or better in Allied Health Technology 130. An introduction to the in vitro nuclear medicine laboratory is presented. Emphasis is placed on radiopharmaceutical preparations and radiochemistry. Techniques are demonstrated in laboratory sessions. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 228 (1)
NUCLEAR MEDICINE PRACTICUM I (7 LAB.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides the student with supervised clinical experience in nuclear medicine. Students are assigned to participating affiliated hospitals. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 230 (1)
RADIATION BIOLOGY (1 LEC.)

Prerequisites: "C" or better in Allied Health Technology 240, 242, and 250. This course provides an introduction to the theory of radiobiology. An understanding of the interactions between ionizing radiation and living tissue with emphasis on fundamental radiological principles and practical applications to clinical radiation therapy is developed. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 232 (3)
RADIOCHEMISTRY-PHARMACY II (2 LEC., 4 LAB.)

Prerequisites: "C" or better in Allied Health Technology 220, 224, and 226. In vitro nuclear medicine techniques are continued with emphasis on radiochemistry-pharmacy. Techniques are demonstrated in laboratory sessions. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 234 (1)
RADIATION THERAPY (1 LEC.)

Prerequisites: "C" or better in Allied Health Technology 220, 224, and 226. This course provides instruction in radiation therapy. Topics discussed include the therapeutic uses of radionuclides, health physics, and radiation safety. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 236 (2)
NUCLEAR MEDICINE PRACTICUM II (16 LAB.)

Prerequisites: "C" or better in Allied Health Technology 228. This course is a continuation of Nuclear Medicine Practicum I that provides the students with supervised clinical experiences in nuclear medicine. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 238 (1)
NUCLEAR MEDICINE SEMINAR (1 LEC.)

Prerequisites: "C" or better in Allied Health Technology 230, 232, and 234. Clinical experiences and problems that have been encountered in the nuclear medicine internship are discussed. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 239 (5)
NUCLEAR MEDICINE INTERNSHIP (35 LAB.)

Prerequisites: "C" or better in Allied Health Technology 230, 232, 234, and 236. In this course students receive practical nuclear medicine experience at affiliated hospitals. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 240 (2)
TECHNICAL RADIATION THERAPY (2 LEC.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides an introduction to the therapeutic techniques and equipment used in radiation therapy. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 242 (2)
RADIATION ONCOLOGY I (2 LEC.)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides instruction in radiation oncology. Specific target organ anatomy and physiology, pathology and staging, treatment planning, and dosimetry are topics of discussion. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 244 (2)
RADIATION ONCOLOGY II (2 LEC.)

Prerequisites: "C" or better in Allied Health Technology 242. This course is a continuing study in radiation oncology emphasizing specific target organ anatomy and physiology and staging, treatment planning, and dosimetry. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 246 (2)
RADIATION ONCOLOGY III (2 LEC.)

Prerequisites: "C" or better in Allied Health Technology 244. This course is a continuing study in radiation oncology emphasizing specific target organ anatomy and physiology, pathology and staging, treatment planning, and dosimetry. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 247 (1)
BRACHY THERAPY (1 LEC.)

Prerequisites: "C" or better in Allied Health Technology 240, 242, and 250. This course provides instruction in the theory and technique of brachy therapy. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 250 (5)
RADIATION THERAPY PRACTICUM I (32 LAB)

Prerequisites: "C" or better in Allied Health Technology 130. This course provides the student with supervised clinical experience in radiation therapy. Students are assigned to participating affiliated hospitals. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 252 (5)
RADIATION THERAPY PRACTICUM II (30 LAB.)

Prerequisites: "C" or better in Allied Health Technology 250. This course is a continuation of Radiation Therapy Practicum I providing the student with supervised clinical experience in radiation therapy. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 253 (4)
RADIATION PHYSICS (4 LEC.)

Prerequisites: "C" or better in Allied Health Technology 240, 242, and 250. This course provides instruction in the theory of radiation physics. Therapy equipment, circuits, and calibration are discussed. ECC ONLY

ALLIED HEALTH TECHNOLOGY (AHT) 254 (6)
RADIATION THERAPY PRACTICUM III (32 LAB.)

Prerequisites: "C" or better in Allied Health Technology 252. This course is a continuation of Radiation Practicum II providing the student with supervised clinical experience in radiation therapy. ECC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 101 (1)
MEDICAL TERMINOLOGY FOR TECHNICIANS (1 LEC.)

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. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 110 (2)
ANIMAL CARE AND SANITATION: CANINE (1 LEC., 2 LAB.)

This course covers the common diseases of the canine species and 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 Animal Medical Technology Program for various courses. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 111 (2)
ANIMAL CARE AND SANITATION: FELINE, PORCINE (1 LEC., 2 LAB.)

This course covers the common diseases of the feline and porcine species and 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 Animal Medical Technology Program for various courses. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 112 (2)
ANIMAL CARE AND SANITATION: EQUINE (1 LEC., 2 LAB.)

This course covers the common diseases of the equine and 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 Animal Medical Technology Program for various courses. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 130 (4)
INTRODUCTION TO ANIMAL MEDICAL TERMINOLOGY (3 LEC., 3 LAB.)

This course is an introduction to employment areas, ethical and professional requirements, terminology and basic animal handling and care. Included are a survey of common breeds of domestic livestock, pets and research animals and an outline of sanitation and disease principles. Laboratories provide experience and observation in restraint, behavior, grooming and basic animal nursing practices. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 137 (4)
COMPARATIVE MAMMALIAN ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)

Mammalian structure is presented on a comparative basis. A histological and gross study of selected organ systems is made using the dog, cat and selected organs of the cow. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 138 (5)
APPLIED BIOCHEMISTRY (4 LEC., 3 LAB.)

This course surveys animal cell structure and function. Emphasis is on the relationship of carbohydrate, protein and lipid utilization. Physiochemical laws involved in cellular homeostatic maintenance are used. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 139 (3)
PHARMACOLOGY FOR TECHNICIANS (3 LEC.)

Prerequisite: Animal Medical Technology 138. Various chemicals and drugs used in 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. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 210 (2)
ANIMAL CARE AND SANITATION: BOVINE (1 LEC., 2 LAB.)

The course covers the common diseases of the bovine and 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 Animal Medical Technology Program for various courses. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 230 (4)
ANESTHETIC AND SURGICAL ASSISTING TECHNIQUES (3 LEC., 3 LAB.)

Prerequisite: Animal Medical Technology 137. 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. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 231 (4)
COMPARATIVE MAMMALIAN ANATOMY AND PHYSIOLOGY II (3 LEC., 3 LAB.)

Prerequisite: Animal Technology 137. This course is a continuation of Animal Medical Technology 137. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 237 (3)
PRINCIPLES AND PRACTICE OF RADIOGRAPHY (2 LEC., 3 LAB.)

Prerequisite: Animal Medical Technology 230. Lectures 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. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 241 (5)
CLINICAL PATHOLOGY TECHNIQUES AND PRACTICES I (3 LEC., 6 LAB.)

Prerequisite: Credit or concurrent enrollment in Animal Medical Technology 231. Clinical laboratory methods are covered. Topics include parasitological, microbiological and tissue sample collection, analysis, identification and reporting to the veterinarian. Laboratory emphasis on identification of common parasites, morphology, cultural and staining characteristics of pathogenic bacteria and preparation of routine microbiological culture media. Blood analysis is introduced, including preparation of routine microbiological culture media, preparation of blood smears, differential cell counts, hemoglobin and packed cell volume determinations. The importance of understanding parasite life cycles and spread of disease by bacteria as well as host tissue changes occurring is stressed. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 242 (3)
EXOTIC AND RESEARCH ANIMAL CARE AND MANAGEMENT (2 LEC., 3 LAB.)

Prerequisite: Animal Medical Technology 130 and 231. This course introduces handling, restraint, sexing and uses of the common research laboratory and exotic animal species. Methods of husbandry and management to control or prevent common diseases 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 animal medical technicians employed in research institutions as compared to employment in veterinary hospitals are emphasized. Laboratory fee.
CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 243 (5)
CLINICAL PATHOLOGY TECHNIQUES AND PRACTICE II (3 LEC., 6 LAB.)

Prerequisite: Animal Medical Technology 241. This course continues the study and practice of lab methods for blood analysis. Included are red and white cell counts, reticulocyte counts, clotting time, sedimentation rates, cross-matching, serology and various blood chemistry analyses. Practice is provided in urine collection, chemical analysis, and urinary sediment and cellular identification. Emphasis is placed on correlating sample data with changes in affected physiological parameters. Laboratory fee.
CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 244 (3)
LARGE ANIMAL ASSISTING TECHNIQUES (2 LEC., 4 LAB.)

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, surgical assistance, bleeding and fluid administration, mastitis control, foot and hoof care, reproductive management assisting and record-keeping. Laboratory fee. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 245 (2)
CLINICAL SEMINAR (2 LEC.)

This course is designed to allow the student to receive on-the-job instruction from an authorized veterinarian concerning daily routine procedures. CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 249 (4)
ANIMAL HOSPITAL NURSING (3 LEC., 3 LAB.)

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 non-infectious disease pet animal nursing, emergency first aid, intensive care techniques, dental problems and prophylaxis and client management and relations. Laboratory fee.
CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 250 (2)
SPECIAL PROJECTS IN AMT (3 LEC.)

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. It is the responsibility of the faculty advisor to provide proper liaison and coordination with personnel in the Learning Resources Center if the student's special project involves software production of specialized animal medical techniques.
CVC ONLY

ANIMAL MEDICAL TECHNOLOGY (AMT) 702 (2)
(See Cooperative Work Experience)

ANIMAL MEDICAL TECHNOLOGY (AMT) 703 (3)
(See Cooperative Work Experience)

ANTHROPOLOGY (ANT) 100 (3)
INTRODUCTION TO
ANTHROPOLOGY (3 LEC.)

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. NOT AT ECC

ANTHROPOLOGY (ANT) 101 (3)
CULTURAL ANTHROPOLOGY (3 LEC.)

Cultures of the world are surveyed and emphasis given to those of North America. Included are the concepts of culture, social and political organization, language, religion and magic, and elementary anthropological theory. (This course is offered on campus and may be offered via television.)
NOT AT ECC

ANTHROPOLOGY (ANT) 104 (3)
AMERICAN INDIAN CULTURE (3 LEC.)

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

ANTHROPOLOGY (ANT) 110 (3)
THE HERITAGE OF MEXICO (3 LEC.)

This course (cross-listed as History 110) is taught in two parts each semester. The first part of the course deals with the archaeology of Mexico beginning with the first humans to enter the North American continent and culminating with the arrival of the Spanish in 1519 A.D. Emphasis is on 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.
NOT AT ECC

ANTHROPOLOGY (ANT) 208 (3)
MULTICULTURAL STUDIES (3 LEC.)

Prerequisite: Anthropology 101 or consent of instructor. This course is a multicultural approach to the study of modern Texas. Emphasis is on African, Anglo and Hispanic cultures. Field experiences and interviews are interspersed with lecture to provide opportunities for personal contact with various cultural behaviors.
NOT AT ECC

ANTHROPOLOGY (ANT) 210 (3)
LANGUAGE, CULTURE AND
PERSONALITY (3 LEC.)

Prerequisite: Anthropology 101 or consent of instructor. Interrelated aspects of language, culture and personality are presented. Special consideration is given to intellectual, social and behavioral problems characteristic of multilingual, multicultural societies.
BHC, CVC, RLC ONLY

ANTHROPOLOGY (ANT) 231 (3)
INTRODUCTION TO
ARCHEOLOGY (3 LEC.)

This course is an anthropological approach to archeology. Topics include an introduction to the study of humanity's past. How archeologists retrieve, process, analyze and interpret surviving prehistoric materials is covered, as well as a survey of world prehistory through neolithic times. BHC, CVC, RLC ONLY

APPAREL DESIGN I (APP) 232 (3)
DESIGN DEVELOPMENT (2 LEC., 4 LAB.)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 237 or the consent of 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. ECC ONLY.

APPAREL DESIGN II (APP) 233 (3)
DESIGN DEVELOPMENT (2 LEC., 4 LAB.)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 238 or the consent of 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. ECC ONLY.

APPAREL DESIGN I (APP) 237 (2)
STYLE TRENDS AND RESEARCH (2 LEC.)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 232 or the consent of 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. ECC ONLY.

APPAREL DESIGN II (APP) 238 (2)
STYLE TRENDS AND RESEARCH (2 LEC.)

Prerequisites: Sophomore standing and concurrent enrollment in Apparel Design 233 or the consent of the instructor. This course is a continuation of the current trends in 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. ECC ONLY.

ARCHITECTURE (ARC) 128 (3)
HISTORY OF ARCHITECTURE I (3 LEC.)

This course includes the development of influences on architecture from ancient man through the Byzantine period. ECC ONLY.

ARCHITECTURE (ARC) 129 (3)
HISTORY OF ARCHITECTURE II (3 LEC.)

This course includes the development of influences on architecture from the Romanesque period to the Industrial Revolution. ECC ONLY.

ARCHITECTURE (ARC) 130 (3)
ARCHITECTURAL GRAPHICS I (2 LEC., 4 LAB.)

Orthographic projection, isometric and oblique drawing, shade and shadow are studied. Linework and lettering in pencil and ink are emphasized. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 133 (3)
ARCHITECTURAL GRAPHICS II (2 LEC., 4 LAB.)

Perspective drawing, shade and shadow are presented. Emphasis is on the theory of drawing, linework and lettering in pencil and ink. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 134 (3)
FREEHAND DRAWING I (2 LEC., 4 LAB.)

This course covers pencil drawing with emphasis on eye to hand coordination. Principles of light, shade, scale, proportion, line and tonal quality using both pencil and conte crayon are included. Exercises use book references, human models and indoor-outdoor sketching. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 135 (3)
FREEHAND DRAWING II (2 LEC., 4 LAB.)

Drawing with pen and ink is the main focus. Also included is the use of brush with ink and ink washes for tonal effects. Exercises use book references, human models and indoor-outdoor sketching. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 146 (3)
ARCHITECTURAL DESIGN — GRADE I (2 LEC., 4 LAB.)

Basic design principles and their application to architectural design are studied. Human awareness and reaction to the environment and its effect on architectural problem-solving are emphasized. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 147 (3)
ARCHITECTURAL DESIGN — GRADE I (2 LEC., 4 LAB.)

Prerequisite: Architecture 146. The application of design principles to architectural experiences is investigated. Analysis, schematic study, and the development of spatial problems related to human occupancy and needs are studied. Emphasis is placed on the development and integration of skills needed to formulate and communicate design concepts. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 150 (3)
BUILDING TECHNOLOGY I — MATERIALS AND METHODS (2 LEC., 4 LAB.)

Architectural materials and their uses are analyzed. Specifications and codes are introduced, and structural systems are investigated. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 153 (3)
CONSTRUCTION DRAWINGS — WOOD FRAME (2 LEC., 4 LAB.)

Prerequisite: Architecture 130 or the consent of the instructor. Construction drawings are introduced. Wood frame construction is studied. The relationship with design and specifications is included. Emphasis is on the total concept of construction documents and detailing. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 220 (3)
PERSONALITIES IN ART AND ARCHITECTURE (3 LEC.)

This course includes an in-depth study of the influential people throughout history who were the motivating human factors behind the evolutionary development of art and architecture. ECC ONLY

ARCHITECTURE (ARC) 226 (3)
SURVEY OF INTERIOR ARCHITECTURE I (3 LEC.)

This course includes a survey of historical interior architecture development beginning with the ancient civilizations. ECC ONLY

ARCHITECTURE (ARC) 227 (3)
SURVEY OF INTERIOR ARCHITECTURE II (3 LEC.)

This course is a continuation of Survey of Interior Architecture I. This course includes the historical development of interior architecture to the present. ECC ONLY

ARCHITECTURE (ARC) 230 (3)
HISTORY OF MODERN ARCHITECTURE (3 LEC.)

Prerequisite: Sophomore standing. The influences and architectural expressions of man are examined. The time period spaces the Industrial Revolution to the present day. ECC ONLY

ARCHITECTURE (ARC) 232 (3)
BASIC ARCHITECTURAL PHOTOGRAPHY (2 LEC., 4 LAB.)

Prerequisites: Architecture 147 and sophomore standing, or the consent of the instructor. Basic theories of film, exposure, development, flash, filters, and printing are presented. Practical applications and uses in architectural illustrations are investigated. Emphasis is on good composition, negative and print qualities. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 233 (3)
HSITORY OF ARCHITECTURE SURVEY TO 1850 (3 LEC.)

This course surveys architecture and influences upon its development to the time of the Industrial Revolution. ECC ONLY

ARCHITECTURE (ARC) 240 (3)
MEDIA SKILLS I (2 LEC., 4 LAB.)

This course introduces various media used in presentations. Pencil, water color, pen and ink, colored pencil and felt tip markers are used on assorted materials in a variety of techniques. ECC ONLY

ARCHITECTURE (ARC) 241 (3)
MEDIA SKILLS II (2 LEC., 4 LAB.)

Additional media techniques are presented. Pastel, carbon pencil, tempera, and transparent and opaque water color are included. ECC ONLY

ARCHITECTURE (ARC) 242 (3)
PRESENTATION I (2 LEC., 4 LAB.)

Prerequisites: Architecture 133 or Interior Design 123 or Art 115 or the consent of the instructor. This is a course in professional delineation wherein the student produces from a given set of architectural drawings finished interior and exterior renderings utilizing the principles of design, perspective, composition, freehand, and mechanical drawing capabilities and rendering techniques. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 243 (3)
PRESENTATION II (2 LEC., 4 LAB.)

Prerequisites: Architecture 133 or Interior Design 123 or Art 115 or the consent of the instructor. This course is a continuation of Presentation I. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 245 (3)
DESIGN SKETCHING (2 LEC., 4 LAB.)

Prerequisites: Architecture 133 or Interior Design 123 or Art 115 or the consent of 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 students' own design. Concepts in various media are the main activities. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 246 (3)
ARCHITECTURAL DESIGN — GRADE II (2 LEC., 4 LAB.)

Prerequisites: Architecture 130 and 147. Research into design theory is conducted to solve architectural problems. Emphasis is on functional and aesthetic values through three-dimensional problem solving studies. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 247 (3)
ARCHITECTURAL DESIGN — GRADE II (2 LEC., 4 LAB.)

Prerequisite: Architecture 246. This course is a continuation of Architecture 246. Emphasis is on functional and aesthetic solutions based upon individual programming and research. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 251 (3)
BUILDING TECHNOLOGY II — HEAVY CONSTRUCTION (2 LEC., 4 LAB.)

Prerequisite: Architecture 150. This course includes the study of construction materials, systems, and techniques used in heavy construction, with emphasis on steel and concrete. A general overview of mechanical and electrical systems and their requirements is provided. Laboratory fee. ECC ONLY



ARCHITECTURE (ARC) 252 (3)
BUILDING TECHNOLOGY III — SPECIFICATIONS AND OFFICE PRACTICE (2 LEC., 4 LAB.)

Prerequisites: Architecture 150 and Architecture 153 or the consent of the instructor. Introduction and practice is provided in specification writing and construction estimating. Exploration is made of the organization of the construction process including the organization of an architect's office, administration of construction contracts, and governmental requirements. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 254 (3)
CONSTRUCTION DRAWINGS II — STEEL FRAME (2 LEC., 4 LAB.)

Prerequisites: Architecture 150 and Architecture 153 or the consent of the instructor. Steel frame construction is studied. Introduction to commercial construction drawings is provided, including plans, elevations, sections, structural drawings, details, and schedules for steel frame buildings. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 255 (3)
CONSTRUCTION DRAWINGS III — CONCRETE AND MASONRY (2 LEC., 4 LAB.)

Prerequisite: Architecture 153. This course involves the study of concrete and masonry construction techniques and their construction drawings. Included are structural drawings, details, schedules, plans, sections, and elevations. Laboratory fee. ECC ONLY

ARCHITECTURE (ARC) 256 (3)
CONSTRUCTION DRAWINGS IV — DETAILING (2 LEC., 4 LAB.)

Prerequisite: Architecture 153. Study is made of the concept of detailing, viewed as a means of controlling the total building process. Detailing subjects include structural, stairs, door and window, interior finish, roof-to-wall, and cabinets. Emphasis is placed upon technique, accuracy, and the ability to solve architectural detail problems. Laboratory fee. ECC ONLY

ARCHITECTURAL TECHNOLOGY (ARC) 802, 812 (2)
(See Cooperative Work Experience)

ARCHITECTURAL TECHNOLOGY (ARC) 803, 813 (3)
(See Cooperative Work Experience)

ARCHITECTURAL TECHNOLOGY (ARC) 804, 814 (4)
(See Cooperative Work Experience)

ART (ART) 103 (1)
INTRODUCTION TO ART (3 LAB.)

Materials and techniques of studio art are introduced for the non-major. Included are basic design concepts and traditional media. Laboratory fee.

NOT AT EFC

ART (ART) 104 (3)
ART APPRECIATION (3 LEC.)

Films, lectures, slides and discussions focus on the theoretical, cultural and historical aspects of the visual arts. Emphasis is on the development of visual and aesthetic awareness.

ART (ART) 105 (3)
SURVEY OF ART HISTORY (3 LEC.)

This course covers the history of art from prehistoric time through the Renaissance. It explores the cultural, geophysical and personal influences on art styles.

ART (ART) 106 (3)
SURVEY OF ART HISTORY (3LEC.)

This course covers the history of art from the Baroque period through the present. It explores the cultural, geophysical and personal influences on art styles.

ART (ART) 110 (3)
DESIGN I (2 LEC., 4 LAB.)

Basic concepts of design with two-dimensional materials are explored. The use of line, color, illusion of space or mass, texture, value, shape and size in composition is considered.

ART (ART) 111 (3)
DESIGN II (2 LEC., 4 LAB.)

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

ART (ART) 114 (3)
DRAWING I (2 LEC., 4 LAB.)

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.

ART (ART) 115 (3)
DRAWING II (2 LEC., 4 LAB.)

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.

ART (ART) 116 (3)
INTRODUCTION TO JEWELRY I (2 LEC., 4 LAB.)

Prerequisites: Art 110, Art 111, or the consent of the instructor. The basic techniques of fabrication and casting of metals are presented. Emphasis is on original design. Laboratory fee.
NOT AT BHC, RLC

ART (ART) 117 (3)
INTRODUCTION TO JEWELRY II (2 LEC., 4 LAB.)

Prerequisite: Art 116. This course continues Art 116. Advanced fabrication and casting techniques are presented. Emphasis is on original design. Laboratory fee.
NOT AT BHC, RLC

ART (ART) 118 (3)
CREATIVE PHOTOGRAPHY FOR THE ARTIST I (2 LEC., 4 LAB.)

Prerequisites: Art 110, Art 114, or the consent of the instructor. Creative use of the camera is studied. Photosensitive materials are examined as a means of making expressive graphic images. Emphasis is black and white processing and printing techniques. Laboratory fee. NOT AT RLC

ART (ART) 119 (3)
CREATIVE PHOTOGRAPHY FOR THE ARTIST II (2 LEC., 4 LAB.)

Prerequisite: Art 118 or the consent of the instructor. This course is a continuation of Art 118. Emphasis is on individual expression. Laboratory fee.
NOT AT MVC, RLC

ART (ART) 122 (3)
ADVERTISING DESIGN (2 LEC., 4 LAB.)

Prerequisite: Art 110, Art 111, Art 115, or the consent of the instructor. Advertising concepts are presented. Emphasis is on the development of logo designs, magazine ads, TV story boards, posters, letterheads and envelopes. CVC ONLY

ART (ART) 199 (1)
ART SEMINAR (1 LEC.)

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.

ART (ART) 201 (3)
DRAWING III (2. LEC., 4 LAB.)

Prerequisites: Art 110, Art 111, Art 115, Sophomore standing and/or permission of the division chair. This course covers the analytic and expressive drawing of the human figure. Movement and volume are stressed. Laboratory fee.

ART (ART) 202 (3)
DRAWING IV (2 LEC., 4 LAB.)

Prerequisites: Art 201, Sophomore standing and/or permission of the division chair. This course continues Art 201. Emphasis is on individual expression. Laboratory fee.

ART (ART) 203 (3)
ART HISTORY (3 LEC.)

Prerequisites: Art 105 and Art 106. The development of the art of western culture during the Renaissance Period is presented. Emphasis is on the development of Renaissance art in Northern and Southern Europe.
BHC, CVC, RLC ONLY

ART (ART) 204 (3)
ART HISTORY (3 LEC.)

Prerequisites: Art 105 and Art 106. The development of the art of western culture from the late 19th century through today is presented. Emphasis is on the development of modern art in Europe and America.
BHC, CVC, RLC ONLY

ART (ART) 205 (3)
PAINTING I (2 LEC., 4 LAB.)

Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. This studio course stresses fundamental concepts of painting with acrylics and oils. Emphasis is on painting from still life, models and the imagination.

ART (ART) 206 (3)
PAINTING II (2 LEC., 4 LAB.)

Prerequisite: Art 205. This course continues Art 205. Emphasis is on individual expression.

ART (ART) 208 (3)
SCULPTURE I (2 LEC., 4 LAB)

Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. Various sculptural approaches are explored. Different media and techniques are used. Laboratory fee.

ART (ART) 209 (3)
SCULPTURE II (2 LEC., 4 LAB)

Prerequisite: Art 208. This course continues Art 208. Emphasis is on individual expression. Laboratory fee.

ART (ART) 210 (3)
COMMERCIAL ART I (2 LEC., 4 LAB)

Prerequisites: Art 110, Art 111, Art 115 or the consent of 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.
CVC, ECC, NLC ONLY

ART (ART) 211 (3)
COMMERCIAL ART II (2 LEC., 4 LAB.)

Prerequisite: Art 210. This course continues Art 210. Added emphasis is on layout and design concepts. Work with simple art form reproduction techniques and the development of a professional portfolio are also included. Laboratory fee.
CVC, ECC, NLC ONLY

ART (ART) 212 (3)
ADVERTISING ILLUSTRATION (2 LEC., 4 LAB.)

Prerequisite: Art 210. Problems of the illustrator are investigated. Elements used by the illustrator are explored. Problem-solving projects are conducted. CVC, NLC ONLY

ART (ART) 213 (3)
COMMERCIAL DESIGN GROUP (2 LEC., 4 LAB.)

Prerequisite: Art 210. Students operate a design studio and work directly with clients to solve their particular visual communication needs. They create graphic art products, such as brochures, identity programs and posters. Printed samples for portfolios may be acquired. CVC ONLY

ART (ART) 215 (3)
CERAMICS I (2 LEC., 4 LAB)

Prerequisites: Art 110, Art 111, Art 115 or the consent of the instructor. This course focuses on the building of pottery forms by coil, slab and use of the wheel. Glazing and firing are also included. Laboratory fee.

ART (ART) 216 (3)
CERAMICS II (2 LEC., 4 LAB.)

Prerequisite: Art 215 or the consent of the instructor. Glaze technology is studied. Advanced problems in the creation of artistic and practical ceramic ware. Laboratory fee.

ART (ART) 220 (3)
PRINTMAKING I (2 LEC., 4 LAB)

Prerequisites: Art 110, Art 111, Art 115, or the consent of the instructor. Basic printmaking processes are introduced. Included are planographic, intaglio, stencil and relief processes. Laboratory fee. NOT AT EFC, MVC

ART (ART) 222 (3)
PRINTMAKING II (2 LEC., 4 LAB.)

Prerequisite: Art 220. This course is a continuation of Printmaking I. Laboratory fee.

ART (ART) 228 (3)
THREE-DIMENSIONAL DESIGN (2 LEC., 4 LAB.)

Prerequisite: Art majors: Art 110, 111, 114. Drafting Technology majors: Drafting 183, Engineering 186. Development of three-dimensional projects in metal, plastic, and wood through the stages of design: idea, sketches, research, working drawing, model and finished product. Emphasis is on function, material and esthetic form. Laboratory fee. NOT AT BHC, MVC

ASTRONOMY (AST) 101 (3)
DESCRIPTIVE ASTRONOMY (3 LEC.)

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

ASTRONOMY (AST) 102 (3)
GENERAL ASTRONOMY (3 LEC.)

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

ASTRONOMY (AST) 103 (1)
ASTRONOMY LABORATORY I (3 LAB.)

Prerequisite: Credit or concurrent enrollment in Astronomy 101. The student uses simple equipment to make elementary astronomical. obervations 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 course includes night observations. Laboratory fee.
NOT AT BHC, MVC, RLC

ASTRONOMY (AST) 104 (1)
ASTRONOMY LABORATORY II (3 LAB.)

Prerequisite: Credit or concurrent enrollment in Astronomy 102. The student makes and uses elementary astronomical observations. Topics include timekeeping, the various uses of spectra, and the motions of stars and galaxies. This laboratory includes night observations. Laboratory fee.
NOT AT BHC, MVC, RLC

ASTRONOMY (AST) 111 (4)
FUNDAMENTALS OF ASTRONOMY (3 LEC., 3 LAB)

This course concerns fundamental aspects of the solar system and the historial 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 indentification, and telescope construction. Laboratory fee. CVC, ECC, NLC ONLY

ASTRONOMY (AST) 112 (4)
GENERAL INTRODUCTORY ASTRONOMY (3 LEC., 3 LAB.)

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 time-keeping, use of spectra, and motions of stars and galaxies. Laboratory fee.
CVC, ECC, NLC ONLY

AUTO BODY (AB) 101 (3)
BASIC METAL PRINCIPLES (2 LEC., 4 LAB.)

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. EFC ONLY

AUTO BODY (AB) 102 (3)
BASIC PAINT PRINCIPLES (2 LEC., 4 LAB.)

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. EFC ONLY

AUTO BODY (AB) 103 (4)
PRACTICAL APPLICATION OF BASIC METAL AND PAINT PRINCIPLES (2 LEC., 5 LAB.)

Prerequisites: Credit or concurrent enrollment in Auto Body 101 and 102. Previously learned skills in auto body repair are integrated. Emphasis is on very minor repairs of in-service automobiles. Laboratory fee. EFC ONLY

AUTO BODY (AB) 104 (3)
MINOR METAL REPAIR (2 LEC., 4 LAB.)

Body construction and sheet metal alignment are studied. Emphasis is on the various techniques of applying plastic to minor damages. Laboratory fee. EFC ONLY

AUTO BODY (AB) 105 (3)
MINOR PAINT REPAIR (2 LEC., 4 LAB.)

The study of paint materials is continued. Application skills are also included. Laboratory fee. EFC ONLY

AUTO BODY (AB) 106 (4)
PRACTICAL APPLICATION OF MINOR METAL AND PAINT REPAIR (2 LEC., 5 LAB.)

Prerequisites: Credit or concurrent enrollment in Auto Body 104 and 105. Metal and paint repair are brought together in this course. Emphasis is on minor repairs of in-service automobiles. Laboratory fee. EFC ONLY

AUTO BODY (AB) 139 (3)
AUTOMOBILE SERVICE BUSINESS OPERATIONS (3 LEC.)

The basic business principles of managing an automobile service shop are studied. Emphasis is on management functions, financial analysis, and governmental regulations. EFC ONLY

AUTO BODY (AB) 235 (3)
ESTIMATING (3 LEC.)

The procedures of estimating damage on automobiles are presented. EFC ONLY

AUTO BODY (AB) 236 (4)
AUTO BODY PRACTICUM (2 LEC., 5 LAB.)

Prerequisites: Auto Body 101, 102, 103, 104, 105, 106, 241, 242, and 243. This course provides the opportunity for the student to use and practice previously learned knowledge and skills of auto body work. Laboratory fee. EFC ONLY

AUTO BODY (AB) 241 (3)
MAJOR PAINT REPAIR (2 LEC., 4 LAB.)

This course focuses on the development of painting skills. Emphasis is on mixing colors, matching colors, and texture. Laboratory fee. EFC ONLY

AUTO BODY (AB)242 (3)
MAJOR PANEL REPLACEMENT (2 LEC., 4 LAB.)

The use of power tools and cutting tools is presented. Emphasis is on the repair and replacement of panels. Laboratory fee. EFC ONLY

AUTO BODY (AB) 243 (4)
ADVANCED APPLICATION OF AUTO BODY REPAIR METHODS (2 LEC., 5 LAB.)

Prerequisites: Credit or concurrent enrollment in Auto Body 241 and 242. Major paint repair and metal replacement are brought together in this course. Emphasis is on repairs of in-service automobiles. Laboratory fee. EFC ONLY

AUTO BODY (AB) 244 (3)
MAJOR COLLISION AND FRAME REPAIR (2 LEC., 4 LAB.)

Students learn to use power frame alignment equipment through lecture, demonstration and actual job repairs. Students will also study through experimentation all materials used in the painting field. Development of skills of painting is emphasized. Laboratory fee. EFC ONLY

AUTO BODY (AB) 813 (3)
(See Cooperative Work Experience)

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 160 (2)
BASIC HAND TOOLS AND POWER EQUIPMENT (60 CONTACT HOURS)

The use and safe handling of hand and power tools are covered. Fasteners used on automobiles are described and their uses demonstrated. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 161 (1)
SAFETY IN THE AUTOMOTIVE INDUSTRY (30 CONTACT HOURS)

This course focuses on shop safety. Included are arrangement of the work area, regulatory guidelines for shop operations, and an overview of the automotive industry. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 162 (3)
SELECTION AND APPLICATION OF MATERIALS (90 CONTACT HOURS)

This course covers the application of several types of primers and sealers prior to the use of enamels or acrylics. Included are undercoatings and primers. Surfacing and sealing techniques are also presented. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 163 (4)
PRINCIPLES AND TECHNIQUES OF PAINTING (120 CONTACT HOURS)

Preparation of the surface for painting, material use and selection, and masking procedures are presented. Both power and hand sanding techniques are emphasized. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 164 (3)
PAINT, MIXING, MATCHING, AND SPRAY GUN OPERATIONS (90 CONTACT HOURS)

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. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 165 (2)
PRINCIPLES AND TECHNIQUES OF WELDING (60 CONTACT HOURS)

Procedures and techniques for using the oxyacetylene system are introduced. Cutting, brazing, shrinking, stretching, and the three-position welding technique are emphasized. Aluminum welding practices are included. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 166 (7)
AUTOMOTIVE METAL CORRECTION AND REPAIR (210 CONTACT HOURS)

This course presents the repair of sheet metal. Emphasis is on hoods, trunks, doors, fenders, and quarter panels. The adjustment, repair, and replacement of equipment and minor electrical apparatus are also covered. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 200 (3)
BODY FILLERS, FILING, AND SANDING TECHNIQUES (90 CONTACT HOURS)

The use of body fillers is studied. Included are preparation, application, and finishing techniques. Several body fillers are used, such as plastic, fiberglass, and soldering. The use of hand and power sanders to file and sand is also covered. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 201 (2)
POLISHING, DETAILING AND MINOR SURFACE REPAIRS (60 CONTACT HOURS)

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. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 202 (2)
AUTOMOTIVE GLASS AND TRIM (60 CONTACT HOURS)

Removal and replacement procedures for automotive glass and trim are explained. Several types of trim, gaskets, glass, hardware, and assemblies are included. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 203 (1)
SPECIAL EFFECTS (30 CONTACT HOURS)

Special decorative effects are covered, such as simulated wood and vinyl application. Transfer repair, renewal, removal, film application, painting, and taping techniques are included. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 204 (2)
PAINT PROBLEMS (60 CONTACT HOURS)

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. BHC ONLY

AUTOMOTIVE BODY REPAIR AND PAINTING (AB) 205 (2)
FRAME REPAIR (60 CONTACT HOURS)

The automobile frame is the focus. Procedures are presented to correct, repair, and replace frame sections. Included also are the care and use of frame straightening tools and equipment. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 100 (2)
ORIENTATION TO THE AUTO PARTS INDUSTRY (60 CONTACT HOURS)

This course is an orientation to the automotive parts industry. The industry's importance in the total automotive field is described. The history and development of the industry, its current role in the U.S. economy, and future trends and issures are covered. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 110 (1)
AUTO PARTS SAFETY (30 CONTACT HOURS)

Safety practices are presented. Emphasis is on proper working conditions and safety precautions within an auto parts facility. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) (130) (2)
AUTOMOTIVE EQUIPMENT, TOOLS, AND ACCESSORIES (60 CONTACT HOURS)

Automotive hand tools and equipment are covered. Both selection and use are included, as well as the identification of accessories and product knowledge. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 150 (2)
AUTO PARTS SALES TECHNIQUES (60 CONTACT HOURS)

This course is a study of counter sales techniques. Included is analysis of the sales invoice. Emphasis is on customer sales, telephone use, and customer relations. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 160 (3)
AUTO PARTS INVENTORY OPERATIONS (90 CONTACT HOURS)

The course covers the receiving, stocking, and shipping of automobile parts. Various topics are included, such as methods of opening packages and the storing of merchandise. Inventory and stock control are also covered. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 170 (3)
AUTOMOTIVE VEHICLE COMPONENTS (90 CONTACT HOURS)

The terminology, operation, and replacement of parts are presented. Specific attention is given to the parts of the engine, transmission, brake systems, and suspension and steering assemblies. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 180 (2)
ORDER PROCESSING AND ANALYSIS (60 CONTACT HOURS)

This course focuses on placing and processing orders. Topics include indexing and filing systems, price sheets, and the manufacturers' specialized catalogs. BHC ONLY

AUTOMOTIVE PARTS SALES AND SERVICE (AP) 190 (1)
THE ROLE OF THE COUNTERPERSON (30 CONTACT HOURS)

Duties of the auto parts salesperson are presented. Specific topics are sales techniques, office procedures, delivery, and housekeeping duties. BHC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 100 (3)
AUTOMOTIVE FUNDAMENTALS (48 CONTACT HOURS)

This course introduces general auto maintenance procedures. Topics include shop safety, hand tools, shop equipment, and manuals and schematics. Apprentices who believe they are qualified by experience or previous training may take and examination to establish credit for this course. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 101 (3)
BASIC ELECTRICAL SYSTEMS (48 CONTACT HOURS)

The theory and principles of electrical systems are presented. Batteries, starters, charging systems, and ignition systems are studied. Testing and basic service procedures are also included. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 102 (3)
AUTOMOTIVE SERVICE DEPARTMENT MANAGEMENT (48 CONTACT HOURS)

This course examines the auto service department. Topics include organizational structure, operation, marketing and promotional methods, management, and financial aspects. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 103 (3)
SUSPENSION, STEERING AND BRAKE SYSTEMS (48 CONTACT HOURS)

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 apprentice is prepared for the N.I.A.S.E. Front End and Brake Systems Examinations (2). CVC ONLY

ATUOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 104 (3)
AUTOMOTIVE PARTS DEPARTMENT MANAGEMENT (48 CONTACT HOURS)

This course examines the auto parts department. Topics include organizational structure, catalog interpretation, terminology, inventory control, warehousing, and distribution. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 105 (3)
ENGINE TUNE-UP PROCEDURES (48 CONTACT HOURS)

Prerequisite: Automotive Technology Apprenticeship 101. Tune-up procedures are presented. The fuel system, carburetor, ignition system, and emission control systems are covered. Emphasis is on precision diagnosis by use of the engine analyzer as well as troubleshooting procedures. Upon successful completion of this course, the apprentice is prepared for the N.I.A.S.E. Engine Tune-Up Examination. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 191 (3)
INTERNSHIP I (640 CONTACT HOURS)

Supervised, on-the-job training, coordinated with classroom activities. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 192 (3)
INTERNSHIP II (640 CONTACT HOURS)

Supervised, on-the-job training, coordinated with classroom activities. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 193 (3)
INTERNSHIP III (640 CONTACT HOURS)

Supervised, on-the-job training coordinated with classroom activities. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 200 (3)
ADVANCED ELECTRICAL SYSTEMS (48 CONTACT HOURS)

Prerequisite: Automotive Technology Apprenticeship 101. Advanced electrical systems are presented. Topics include chassis electrical systems, integrated circuits, instrument panel controls, wiring vacuum systems, and accessory controls. Emphasis is on interpretation of diagrams and schematics. Systematic troubleshooting procedures are also stressed. Upon completion of this course, the apprentice is prepared for the N.I.A.S.E. Electrical Systems Examination. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 201 (3)
AUTOMOTIVE AIR CONDITIONING AND HEATING SYSTEMS (48 CONTACT HOURS)

This course covers basic thermodynamics principles and 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 apprentice is prepared for the N.I.A.S.E. Heating and Air Conditioning Systems Examination. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 202 (3)
BASIC ENGINE REPAIR (48 CONTACT HOURS)

The study and repair of engines are the focus of this course. Four-cycle, two-cycle, rotary, and diesel engines are all included. Cooling and lubrication systems, valves and valve trains, cylinder head reconditioning, and the diagnosis of engine problems are studied. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 203 (3)
ENGINE OVERHAUL PROCEDURES (48 CONTACT HOURS)

Prerequisite: Automative Technology Apprenticeship 202. Procedures to remove, disassemble, rebuild,assemble, and install the engine are covered. Emphasis is on precision measuring techniques. Also included are tune-up and road testing. Upon completion of this course, the apprentice is prepared for the N.I.A.S.E. Engine Repair Examination. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 204 (3)
CLUTCHES, DIFFERENTIALS, AND DRIVE SHAFTS (48 CONTACT HOURS)

Release clutches, drive lines, and differential assemblies are studied. Included are the design, operation, diagnosis, and repair of these parts. Emphasis is on differential diagnosis and repair. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA)205 (3)
TRANSMISSIONS (48 CONTACT HOURS)

This course is an introduction to transmissions and gear trains. Included are conventional 3-speed transmissions, synchronized 3-, 4- and 5-speed transmissions. Emphasis is on diagnostic procedures and servicing. Upon completion of this course and Automotive Technology Apprenticeship 204, the apprentice is prepared for the N.I.A.S.E. Automatic and Standard Transmissions Examinations (2). CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 294 (3)
INTERNSHIP IV (640 CONTACT HOURS)

Supervised on-the-job training, coordinated with classroom activities. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 295 (3)
INTERNSHIP V (640 CONTACT HOURS)

Supervised on-the-job training, coordinated with classroom activities. CVC ONLY

AUTOMOTIVE TECHNOLOGY APPRENTICESHIP (ATA) 296 (3)
INTERNSHIP VI (640 CONTACT HOURS)

Supervised on-the-job training, coordinated with classroom activities. CVC ONLY

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

AUTOMOTIVE TECHNOLOGY (AT) 101 (3)
AUTO SHOP PRACTICE (2 LEC., 4 LAB.)

Selected topics on auto shop operations are presented. Included are personnel, pay structures, safety, specifications and manuals, equipment and tools, the metric system, batteries, and welding. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 102 (3)
ENGINE AND IGNITION SYSTEM OPERATION (2 LEC., 4 LAB.)

This course covers the theory and operating principles of the four-cycle engine and ignition system. Testing and repair of these systems are emphasized. Related tools and special equipment are covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 103 (4)
FUEL AND EMISSION CONTROL SYSTEMS (2 LEC., 5 LAB.)

The operation and maintenance of the fuel and emission control systems are presented. Tools and related equipment are also covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 104 (3)
AUTO ELECTRICAL SYSTEM (2 LEC., 4 LAB.)

This course examines basic electricity, chassis circuits, and wiring. Included are starting systems, lights, alternators, and regulators. Tools and equipment are also covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 105 (3)
AUTO ENGINES I (2 LEC., 4 LAB.)

The theory and operation of the internal combustion engine are studied. Engine rebuilding is introduced. Emphasis is on the proper use of hand tools and equipment. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 106 (4)
00AUTO ENGINES II (2 LEC., 5 LAB.)

Prerequisite: Credit or concurrent enrollment in Automotive Technology 105. This course is a continuation of Auto Engines I. Engine rebuilding is continued with emphasis on in-service automobile repair. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 120 (3)
AUTOMOTIVE SYSTEMS MINOR SERVICE (90 CONTACT HRS.)

This course introduces shop operations, flat rate manuals, service manuals, safety, organizational design, pay structure, equipment, and tools. Also included are service procedures for lubrication, batteries, the cooling system, wheels and tires, new car predelivery service, and welding techniques. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 121 (3)
FUNDAMENTALS OF THE INTERNAL COMBUSTION ENGINE (90 CONTACT HRS.)

This course provides an introduction to the gasoline and diesel internal combustion engine. Techniques and skills of testing and measurement of the engine functions and care of the lubricating, cooling, and exhaust systems are presented. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 122 (4)
MAJOR ENGINE SERVICES (120 CONTACT HRS.)

This course includes practical applications of engine overhaul and other component parts necessary to handle the types of repairs required by the public. The proper use and care of tools and equipment is stressed. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 123 (5)
ENGINE ANALYSIS AND TUNE-UP (150 CONTACT HRS.)

Techniques of diagnosing the automobile engine and other areas are covered. The ignition systems, electronic, and conventional systems are stressed. Also, fuel injection is covered when materials are available. Complete tune-up procedures, using the latest test equipment, are studied to insure the proper application to the automobile. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 124 (3)
FUEL INDUCTION SYSTEMS (90 CONTACT HRS.)

This course covers the principles and functions of the automotive fuel systems, including the carburetor, fuel pump, gas tank, and emission control systems. Diagnosis, repair, and adjustment of emission control systems, repair, and adjustment of the carburetor, fuel injection, and their components are stressed. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 125 (3)
ELECTRICAL SYSTEMS (90 CONTACT HRS.)

This course covers the automobile electrical system, including batteries, alternators, generators, starters, voltage regulators, and the use of electrical test equipment. The proper care and use of tools is stressed. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 126 (4)
BRAKE SYSTEMS (120 CONTACT HRS.)

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. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 140 (6)
AUTOMOTIVE SERVICES (180 CONTACT HOURS)

This is a comprehensive course that incorporates Automotive Technology 141, 142, 143 and 144. Students may enroll in the comprehensive course or any of the inclusive courses. Fundamentals of automotive services are covered. Safety, hand tools, shop equipment and general maintenance procedures are included. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 141 (6)
AUTOMOTIVE SHOP SAFETY (30 CONTACT HOURS)

This course focuses on shop safety. Topics include vehicle lifting procedures, electrical and fire hazards and vehicle moving. The proper use of storage of tools and equipment are also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 142 (2)
AUTOMOTIVE FUNDAMENTALS (60 CONTACT HOURS)

This course focuses on automotive fundamentals. Topics include the engine, standard and automatic transmission, drive line and front end. The cooling, electrical and fuel systems are covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 143 (2)
SHOP EQUIPMENT AND PROCEDURES (60 CONTACT HOURS)

This course focuses on equipment and procedures. Topics include the selection, use and care of tools and equipment. Ths use of service invoices, time and labor guides and shop manuals are also covered. Basic arc welding and oxyacetylene welding, soldering and brazing are introduced. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 144 (1)
LUBRICATION MAINTENANCE PROCEDURES (30 CONTACT HOURS)

This course focuses on lubrication and maintenance. Topics include lubricants, vehicle requirements for lubrication, greasing procedures, battery servicing and cooling system maintenance. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 150 (6)
FRONT SUSPENSION, STEERING AND BRAKES (180 CONTACT HOURS)

This is a comprehensive course that incorporates Automotive Technology 151, 152, 153 and 154. Students may enroll in the comprehensive course or any of the inclusive courses. The steering, front suspension and disc or drum brake systems are studied. Also included are alignment and balancing procedures. Emphasis is on diagnosis, service, repair and replacement. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 151 (2)
SUSPENSION, STEERING AND FRONT END ALIGNMENT (60 CONTACT HOURS)

The course is the specific study of suspension, steering and front end alignment. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 152 (2)
DISC BRAKES (60 CONTACT HOURS)

This course is the specific study of disc brakes. Topics include disc brake systems, rotors, power brake boosters, master cylinders, control valves and caliper rebuilding. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 153 (1)
DRUM BRAKES (30 CONTACT HOURS)

Includes diagnosis and repair of drum brake systems, rebuilding wheel cylinders, machining brake drums, lining adjustment and emergency brake system. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 154 (1)
WHEELS AND TIRES (30 CONTACT HOURS)

This course is the specific study of wheels and tires. Topics include tire design and tire wear patterns. Mounting, repair, inflation and static and dynamic balancing procedures are also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 160 (6)
AUTOMOTIVE ENGINES (180 CONTACT HOURS)

Prerequisite: Automotive Technology 140. This is a comprehensive course that incorporates Automotive Technology 161 and 162. Students may enroll in the comprehensive course or either of the inclusive courses. This course covers the diagnosis of engine mechanical problems. Complete overhaul procedures are also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 161 (2)
ENGINE PROGLEM DIAGNOSIS (MECHANICAL) (60 CONTACT HOURS)

This course includes the diagnosis of engine mechanical problems. Use of shop test equipment and proper testing procedures are emphasized. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 162 (4)
ENGINE OVERHAUL (120 CONTACT HOURS)

This course includes engine removal, disassembly, cleaning, repair and replacement of parts as required. Reassembly and installation are also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 170 (6)
AUTOMOTIVE SYSTEMS (180 CONTACT HOURS)

Prerequisite: Automotive Technology 140. This is a comprehensive course that incorporates Automotive Technology 171, 172, 173 and 174. Students may enroll in the comprehensive course or any of the inclusive courses. Auto air conditioning, heating, electrical and exhaust systems are presented. Both diagnosis of problems and repair are included. Laboratory fee.

AUTOMOTIVE TECHNOLOGY (AT) 171 (2)
AUTOMOTIVE AIR CONDITIONING SYSTEMS (60 CONTACT HOURS)

This course focuses on air conditioning systems. Topics include diagnosis, repair, evacuation and charging. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 172 (1)
AUTOMOTIVE HEATING SYSTEMS (30 CONTACT HOURS)

This focuses on heating systems. Topics include the diagnosis and repair of heaters and heater control systems. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 173 (2)
ELECTRICAL SYSTEMS (60 CONTACT HOURS)

This course focuses on electrical systems. Topics include starting systems, alternators and generators, lighting and instruments. Also covered is the interpretation of wiring diagrams and schematics. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 174 (1)
EXHAUST SYSTEMS (30 CONTACT HOURS)

This course focuses on exhaust systems. Topics include exhaust manifolds, gaskets, heat control valves, mufflers, and exhaust and tail pipes. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 214 (3)
HEATING AND AIR CONDITIONING (90 CONTACT HRS.)

This course includes proper use of special tools and equipment related to automotive air conditioning and heating units. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 215 (5)
FRONT-END ALIGNMENT (150 CONTACT HRS.)

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. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 216 (3)
STANDARD TRANSMISSIONS AND DRIVE TRAINS (90 CONTACT HRS.)

This course includes the operating principles, construction, and maintenance of the manual transmission and related drive-train components. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 217 (2)
AUTOMATIC TRANSMISSION-MINOR SERVICES (60 CONTACT HRS.)

This course emphasizes minor adjustments, repairs, and replacement of fluids, filters, and related in-car services. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 218 (4)
AUTOMATIC TRANSMISSION-MAJOR SERVICES (120 CONTACT HRS.)

The theory and practical aspects of the automatic transmission are studied in this course. Included are the torque converter and the power flow through the planetary gear and clutch systems, hydraulic and other components. Laboratory fee. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 220 (1)
CUSTOMER SERVICE (30 CONTACT HRS.)

This course is designed to acquaint the student with the role of positive interface with the customer. A variety of case studies and role plays are used to simulate customer service functions. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 260 (6)
POWER TRAINS (180 CONTACT HOURS)

Prerequisite: Automotive Technology 140. This is a comprehensive course that incorporates Automotive Technology 261, 262, 263, and 264. Students may enroll in the comprehensive course or any of the inclusive courses. Power trains are studied. Differential assemblies, standard transmissions and overdrives, clutches, and drive trains are included. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 261 (2)
DIFFERENTIAL ASSEMBLIES
(60 CONTACT HOURS)

This course examines differential assemblies. Topics include ring and pinion assemblies, bearings, seals, and axles. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 262 (2)
STANDARD TRANSMISSIONS
AND OVERDRIVES (60 CONTACT HOURS)

This course examines standard transmissions and overdrives. Both diagnosis of problems and repair are included. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 263 (1)
CLUTCHES (30 CONTACT HOURS)

This course examines clutches. Diagnosis, removal, replacement, repair, and adjustment are covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 264 (1)
DRIVE TRAINS (30 CONTACT HOURS)

This course examines drive trains. Drive train and components, universal joints, carrier bearings, and constant velocity joints are covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 270 (6)
AUTOMATIC TRANSMISSIONS
(180 CONTACT HOURS)

Prerequisite: Automotive Technology 140. This is a comprehensive course that incorporates Automotive Technology 271, 272, and 273. Students may enroll in the comprehensive course or in any of the inclusive courses. Automatic transmissions are presented. Emphasis is on those used by General Motors, Ford Motor Company, and Chrysler Corporation. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 271 (2)
GENERAL MOTORS AUTOMATIC
TRANSMISSIONS (60 CONTACT HOURS)

This course centers on automatic transmissions used by General Motors. Topics include problem diagnosis, removal, repair, replacement, and adjustment. Use of the automatic transmission tester is also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 272 (2)
FORD MOTOR COMPANY AUTOMATIC
TRANSMISSIONS (60 CONTACT HOURS)

This course centers on automatic transmissions used by Ford Motor Company. Topics include problem diagnosis, removal, repair, replacement, and adjustment. Use of the automatic transmission tester is also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 273 (2)
CHRYSLER CORPORATION AUTOMATIC
TRANSMISSIONS (60 CONTACT HOURS)

This course centers on automatic transmissions used by Chrysler Corporation. Topics include problem diagnosis, removal, repair, replacement and adjustment. Use of the automatic transmission tester is also covered. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 280 (6)
AUTOMOTIVE TUNE-UP (180 CONTACT HOURS)

Prerequisite: Automotive Technology 140. This is a comprehensive course that incorporates Automotive Technology 281, 282, and 283. Students may enroll in the comprehensive course or any of the inclusive courses. Ignition, fuel, and emission control systems are studied. Emphasis is on diagnosis of problems, repair, replacement, and adjustment. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 281 (2)
IGNITION SYSTEMS (60 CONTACT HOURS)

This course examines ignition systems. Both conventional and electronic ignition systems are included. Emphasis is on tune-up procedures. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 282 (2)
FUEL SYSTEMS (60 CONTACT HOURS)

This course examines fuel systems. Carburetors, fuel pumps and other fuel system components are included. Rebuilding of the carburetor and tune-up procedures are emphasized. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 283 (2)
EMISSION CONTROL SYSTEMS (60 CONTACT HOURS)

This course examines emission control systems. Included is infra-red emission testing. Laboratory fee. CVC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 290 (3)
AUTO POWER TRAIN (2 LEC., 4 LAB.)

The drive train (excluding the transmission) is studied. Clutches, standard transmissions, drive lines, and differentials are covered. Servicing, overhaul, adjustment, and the use of special tools are also covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 291 (3)
AUTOMATIC TRANSMISSIONS I (2 LEC., 4 LAB.)

The theory and operation of automatic transmissions are explored. Automatic transmissions are rebuilt using hand and special tools. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 292 (4)
AUTOMATIC TRANSMISSIONS II (2 LEC., 5 LAB.)

Prerequisite: Credit or concurrent enrollment in Automotive Technology 291. This course is a continuation of Automatic Transmissions I. Transmission rebuilding continues with emphasis on in-service automobile repair. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 293 (3)
AUTO SUSPENSION (2 LEC., 4 LAB.)

Front end alignment, suspension, steering mechanisms, and wheel balancing are presented. The use of hand tools and related special equipment are included. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 294 (4)
AUTO BRAKES (2 LEC., 5 LAB.)

The theory and operation of brakes are studied. Included are drum and disc brakes, power boosters, and other related brake components. Service, repair, and the use of tools and special equipment are covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY
(AT) 295 (3)
AUTO AIR CONDITIONING (2 LEC., 4 LAB.)

This course focuses on the principles of operation and servicing of air conditioners. Topics include compressors, condensors, evaporators, and related components. Both installation and maintenance are covered. Laboratory fee. EFC ONLY

AUTOMOTIVE TECHNOLOGY (AT)
723 (3)
COOPERATIVE WORK EXPERIENCE (176 CONTACT HRS.)

Prerequisite: Enrollment in the General Motors Automotive Service Educational Program. This course consists of weekly seminars meeting 2 hours per week and 8 weeks of full-time on-the-job experience. Theory and instruction received in the previous courses taught with a GM emphasis are applied to work in the sponsoring dealership. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 733 (3)
COOPERATIVE WORK EXPERIENCE (156 CONTACT HRS.)

Prerequisite: Enrollment in the General Motors Automotive Service Educational Program. This course consists of weekly seminars meeting 2.5 hours per week and 7 weeks of full-time on-the-job experience. Theory and instruction received in the previous courses taught with a GM emphasis are applied to work in the sponsoring dealership. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 823 (3)
COOPERATIVE WORK EXPERIENCE (136 CONTACT HRS.)

Prerequisite: Enrollment in the General Motors Automotive Service Educational Program. This course consists of weekly seminars meeting 2.75 hours per week and 6 weeks of full-time on-the-job experience. Theory and instruction received in the previous courses taught with a GM emphasis are applied to work in the sponsoring dealership. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 824 (4)
COOPERATIVE WORK EXPERIENCE (276 CONTACT HRS.)

Prerequisite: Enrollment in the General Motors Automotive Service Educational Program. This course consists of weekly seminars meeting 1.5 hours per week and 13 weeks of full-time on-the-job experience. Theory and instruction received in the previous courses taught with a GM emphasis are applied to work in the sponsoring dealership. BHC ONLY

AUTOMOTIVE TECHNOLOGY (AT) 834 (4)
COOPERATIVE WORK EXPERIENCE (256 CONTACT HRS.)

Prerequisite: Enrollment in the General Motors Automotive Service Educational Program. This course consists of weekly seminars meeting 1.25 hours per week and 12 weeks of full-time on-the-job experience. Theory and instruction received in the previous courses taught with a GM emphasis are applied to work in the sponsoring dealership. BHC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 100 (5)
AIRCRAFT BASIC SCIENCE (150 CONTACT HOURS)

This course covers mathematics and physics of flight used in computing aircraft weight and balance. It also is an introduction to mechanic's privileges and limitations, Federal Aviation Regulations, and forms and publications used by the aircraft industry. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 101 (5)
APPLIED AIRCRAFT SCIENCE (150 CONTACT HOURS)

Aircraft hardware and materials, non-destructive testing, and precision measurements are presented. The fabrication and installation of fluid lines and fittings are included. Servicing methods and ground operations are also covered, as well as cleaning and corrosion control. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 102 (5)
BASIC ELECTRICITY (150 CONTACT HOURS)

The nature and relationships of voltage, current, and resistance designed specifically for aircraft electrical systems are studied. Topics include batteries, generators, alternators, and motors. Service and maintenance are both emphasized. The interpretation of aircraft drawings, charts, and wiring diagrams is also covered. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 200 (5)
AIRFRAME STRUCTURES (150 CONTACT HOURS)

This course introduces wooden structures for aircraft. Covering materials, finishes, and application procedures are included. Fuel systems, the use of oxyacetylene welding equipment, and the inspection of aircraft welds are also covered. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 201 (5)
SHEET METAL STRUCTURES (150 CONTACT HOURS)

Sheet metal structures are the focus of this course. Included are honeycomb and laminated structures as well as doors and windows. The identification, selection, and installation of rivets and fasteners are also covered. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 202 (5)
HYDRAULICS AND LANDING GEAR(150 CONTACT HOURS)

Hydraulic and pneumatic principles are presented and applied to basic units and systems. Topics include wheels, tires, brakes, and fixed and retractable landing gear. Inspection, maintenance and repair are all stressed. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 203 (5)
AIRFRAME ELECTRICAL SYSTEMS (150 CONTACT HOURS)

Electrical components and related wiring are studied. Topics include instrument systems, communications, navigation equipment, power requirements, and antenna use. Proper methods of installation, removal, disassembly, and repair are emphasized. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 204 (5)
UTILITY SYSTEMS (150 CONTACT HOURS)

This course covers atmospheric conditions and their modification for cabin heating, cooling, ventilation, and pressurization. It is an introduction to protection systems for ice, rain, and fire. Emphasis is on assembly and rigging by the use of manuals to install, inspect, align, and balance structural components. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 205 (5)
INSPECTION AND REVIEW (150 CONTACT HOURS)

Methods and procedures for completing required inspections are presented. Included is a review of all general and airframe material. FAA examinations for the Airframe Certificate are taken upon the completion of this course. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 220 (5)
RECIPROCATING ENGINES (150 CONTACT HOURS)

This course focuses on the reciprocating engine. Topics include piston displacement, compression ratio, and horsepower calculations. The classification and description of engine types are also covered. Emphasis is on the disassembly, inspection, overhaul, assembly, and testing of reciprocating engines. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 221 (5)
GAS TURBINE POWERPLANTS (150 CONTACT HOURS)

This course focuses on gas turbine engines. Basic operating principles are examined, the effects of temperature, pressure, volume, and velocities of the working gases are explored. Components and functions are identified. Emphasis is on the disassembly, inspection, assembly, and testing of turbine engines. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 222 (5)
POWERPLANT ELECTRICAL SYSTEMS (150 CONTACT HOURS)

Powerplant systems and their parts are studied. Topics include powerplant magnetos and ignition systems, starter and generator systems, engine instrument systems, and engine fire protection systems. Emphasis is on the theory, construction, control, operation, maintenance, and servicing of these systems. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 223 (5)
POWERPLANT ACCESSORY SYSTEMS (150 CONTACT HOURS)

Accessory systems are covered. Included are aircraft propellers and their control systems. Lubricating, induction and supercharging, cooling and exhaust systems are also included. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 224 (5)
FUEL METERING AND TROUBLESHOOTING (150 CONTACT HOURS)

This course provides information about the various fuel systems used for aircraft engines. The principles, operation, overhaul, and repair of various carburetors and direct fuel injection units are presented. Emphasis is on the recognition, analysis, and elimination of common powerplant troubles as well as engine installation and removal. MVC ONLY

AVIATION MAINTENANCE TECHNOLOGY (APM) 225 (5)
POWERPLANT REVIEW AND INSPECTION (150 CONTACT HOURS)

Methods and procedures for completing an airworthiness inspection are the focus of this course. Included is a review of all general and powerplant material. FAA examinations for the Powerplant Certificate are taken at the completion of this course. MVC ONLY



AVIATION TECHNOLOGY (AVT) 110 (3)
INTRODUCTION TO AVIATION (3 LEC.) (48 CONTACT HOURS)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT) 121 (3)
GROUND SCHOOL PRIVATE (3 LEC.) (48 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 122 (3)
AVIATION LAW (3 LEC.) (48 CONTACT HOURS)

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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 123 (3)
GROUND SCHOOL COMMERCIAL (3 LEC.) (48 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 128 (3)
AERO ENGINES AND SYSTEMS (3 LEC.) (48 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 135 (2)
FLIGHT BASIC (9 LAB., 25 FLIGHT) (34 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 137 (1)
FLIGHT PRIVATE PILOT (4 LAB., 20 FLIGHT) (24 CONTACT HOURS)

This course provides 20 hours of flight instruction (10 hours dual and 10 hours solo flight). Pre-flight instruction and briefing are included. Students receive credit for the course upon completion of the flight prerequisite for the Private Pilot Flight Examination. Flight and laboratory fee. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 210 (4)
FEDERAL AVIATION REGULATIONS, AIRSPACE AND AIR TRAFFIC CONTROL SERVICES (3 LEC., 4 LAB.) (52 CONTACT HOURS)

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. A total of 4 hours in the Synthetic Flight Trainer is required. Instruction is in the use of various radar services. Laboratory fee. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 212 (3)
AIRPORT MANAGEMENT (3 LEC.) (48 CONTACT HOURS)

Prerequisites: Required core courses and Business 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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 220 (3)
AERO DYNAMICS (3 LEC.) (48 CONTACT HOURS)

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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 221 (3)
ADVANCED NAVIGATION (2 LEC., 2 LAB.) (64 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 222 (3)
TRANSPORTATION, TRAFFIC AND AIR CARGO (3 LEC.) (48 CONTACT HOURS)

Prerequisites: Required core courses and credit or concurrent enrollment in Business 136. Transportation methods of passengers and cargo are examined. Emphasis is on the diagnosis and solution of problems at terminals. Topics include air cargo, air mail, air express, and air freight. The nature of automation and future trends are also covered. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 223 (3)
AIRLINE MANAGEMENT (3 LEC.) (48 CONTACT HOURS)

Prerequisites: Required core courses and Business 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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 224 (3)
GROUND SCHOOL INSTRUMENT (3 LEC.) (48 CONTACT HOURS)

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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 225 (3)
AVIATION MARKETING (3 LEC.) (48 CONTACT HOURS)

Prerequisites: Required core courses and Business 233. 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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 226 (3)
METEOROLOGY (3 LEC.) (48 CONTACT HOURS)

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. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 227 (2)
FLIGHT COMMERCIAL I (8 LAB., 30 FLIGHT) (38 CONTACT HOURS)

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.

AVIATION TECHNOLOGY
(AVT) 228 (3)
FLIGHT COMMERCIAL II (8 LAB., 46 FLIGHT) (54 CONTACT HOURS)

Prerequisite: Aviation Technology 227 and concurrent enrollment in Aviation Technology 123. This course provides 46 hours of flight instruction (10 hours dual instrument instruction, 6 hours dual instruction, and 30 hours of solo flight) to apply toward the Commercial Pilot Certificate. Pre-flight instruction and briefing are included, as are 5 hours of night flight. Flight and laboratory fee.

AVIATION TECHNOLOGY
(AVT) 229 (3)
FLIGHT COMMERCIAL III (4 LAB., 46 FLIGHT) (50 CONTACT HOURS)

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

AVIATION TECHNOLOGY
(AVT) 230 (3)
FLIGHT COMMERCIAL
IV-INSTRUMENT (26 LAB., 20 FLIGHT) (46 CONTACT HOURS)

Prerequisite: Private or Commercial Pilot Certificate. This course provides 45 hours of flight instruction (25 hours of instrument flight instruction and 20 hours instruction in an instrument, synthetic trainer). Pre-flight instruction and briefing are included. Laboratory fee. MVC ONLY

AVIATION TECHNOLOGY (AVT)
248 (3)
AIR TRANSPORTATION (3 LEC.) (48 CONTACT HOURS)

Prerequisite: Aviation Technology 110. This course is a study of the need, nature, and structure of the air transportation segment of the aviation industry. It includes passengers and cargo in both domestic and international travel. Topics cover kinds of transportation, such as air carrier, air-taxi, commuter, business, and pleasure. Basic costs and revenue sources are explored. Legal issues and future trends are described. MVC ONLY

AVIATION TECHNOLOGY
(AVT) 250 (2)
FLIGHT INSTRUCTOR GROUND SCHOOL (2 LEC.) (32 CONTACT HOURS)

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

AVIATION TECHNOLOGY (AVT)
251 (2)
FLIGHT INSTRUCTOR AIRPLANE/SINGLE OR MULTI-ENGINE (40 CONTACT HRS.)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
252 (3)
INSTRUMENT FLIGHT INSTRUCTOR GROUND SCHOOL (48 CONTACT HRS.)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
253 (1)
FLIGHT INSTRUCTOR-AIRPLANE INSTRUMENT (20 CONTACT HRS.)

Prerequisite: Certified Flight Instructor Rating. This course includes 20 hours of flight training in the science of flight instruction including evaluation of student performance and maneuver analysis. The required flight disciplines that qualify the student for the FAA Flight Instructor-Airplane Instrument Rating are covered. Ten (10) hours in the Synthetic Flight Trainer are required. Flight and laboratory fee. MVC ONLY

AVIATION TECHNOLOGY (AVT)
254 (1)
FLIGHT ADVANCED I (16 CONTACT HRS.)

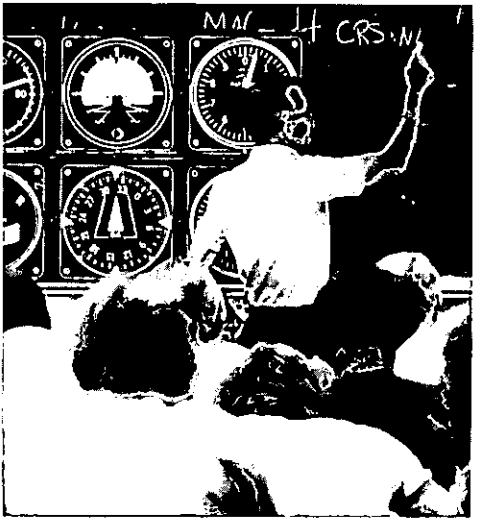
Prerequisite: A Private Pilot Certificate or a Commercial Pilot Certificate. This course includes 10 hours of flight instruction. All flying is in modern twin-engine aircraft and is designed to give the advanced pilot a greater depth of aircraft experience. The course includes pre-flight instruction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

AVIATION TECHNOLOGY (AVT)
261 (3)
AIRCRAFT DISPATCHER I (48 CONTACT HRS.)

This course includes a survey of FAA regulations and duties of an aircraft dispatcher plus basic flight planning for transport category aircraft. MVC ONLY

AVIATION TECHNOLOGY (AVT)
262 (4)
PRACTICAL DISPATCHING (58 CONTACT HRS.)

The content of this course is described in the current FAA Aircraft Dispatcher Circular. The content is designed to prepare the student for the FAA written exam for aircraft dispatcher. Ten hours are required in the Simulated Flight Trainer. (Simulated instrument flight hours can be accumulated both on and off campus but must be verified by the instructor.) Simulator fee. MVC ONLY



AVIATION TECHNOLOGY (AVT)
263 (3)
FLIGHT ENGINEER GROUND SCHOOL
(48 CONTACT HRS.)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
264 (3)
AIR TRANSPORT PILOT GROUND SCHOOL
(48 CONTACT HRS.)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
270 (5)
ORIENTATION TO AIR TRAFFIC CONTROL
(80 CONTACT HRS.)

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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
272 (2)
AIRCRAFT TYPES AND CHARACTERISTICS/
AIR TRAFFIC CONTROL COMMUNICATIONS
(32 CONTACT HRS.)

This course is designed to introduce developmental controllers to the information necessary to identify the types of aircraft by name or model by its 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. MVC ONLY

AVIATION TECHNOLOGY (AVT)
274 (3)
AIR TRAFFIC COMPUTER OPERATIONS
(48 CONTACT HRS.)

This course is designed to train the student to operate the components of the central computer complex in an enroute air traffic control center and includes computer operations, input and output devices and their operating characteristics and message format, content, and computer responses. MVC ONLY

AVIATION TECHNOLOGY (AVT)
(See Cooperative Work Experience)
701, 711, 801, 811 (1)
702, 712, 802, 822 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)
MVC ONLY

AVIONICS TECHNOLOGY
(AV) 129 (3)
INTRODUCTION TO AIRCRAFT
ELECTRONIC SYSTEMS (2 LEC., 2 LAB.) (64
CONTACT HOURS)

This course introduces the aircraft and the nature of flight. Emphasis is on electronic systems and their function and operation. Laboratory fee.

AVIONICS TECHNOLOGY
(AV) 132 (4)
MATERIALS, TOOLS, AND INSTALLATION TECHNIQUES AND PRACTICES (3 LEC., 3 LAB.) (96 CONTACT HOURS)

This course is designed to acquaint the student with a variety of acceptable materials available for use in avionics installations and the correct tools and techniques applicable to quality, reliability, safety, and longevity in such installations. Laboratory fee. MVC ONLY

AVIONICS TECHNOLOGY
(AV) 235 (4)
CHECKOUT, TROUBLE-SHOOTING AND RELATED TEST APPARATUS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

This course incorporates a combination of technical drawing interpretation, wiring interface checkout, and application of checkout test apparatus to the level of some ramp test equipment in common usage. Laboratory fee. MVC ONLY

AVIONICS TECHNOLOGY (AV)
(See Cooperative Work Experience)
701, 711, 801, 811 (1)
702, 712, 802, 822 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)
MVC ONLY

BANKING AND FINANCE
(BF) 100 (3)
INTRODUCTION TO CREDIT UNION BUSINESS (3 LEC.)

This course presents a survey of the history and philosophy of credit unions as a part of the U.S. economy. Topics include credit union organizational structure, legal basis, regulatory agencies, general functions, duties of board and committees, reports, precedures, accounting statements, and data processing. RLC ONLY

BANKING AND FINANCE
(BF) 101 (3)
CREDIT MANAGEMENT (3 LEC.)

Prerequisite: Banking and Finance 115. Methods of credit management and control are presented and applied to cases. Topics include making credit decisions, fixing credit limits, and handling complicated accounts. Adjustments, extensions, compostion settlements, assignments, reorganizations, and bankruptcies are also covered. Emphasis is on analysis of profitablity, capacity to pay debts and provide essential services, and ability to withstand adversity. Trade credit is examined as a commitment of corporate assets. RLC ONLY

BANKING AND FINANCE
(BF) 103 (3)
INTRODUCTION TO BANKING (3 LEC.)

This course is an overview of the internal organization and operation of the departments of a full service bank. Emphasis is on an operational perspective of banking services. RLC ONLY

BANKING AND FINANCE (BF)
104 (3)
MONEY AND BAKING (3 LEC.)

Prerequisite: Economics 201. Basic economic principles related to money and banking are presented. Emphasis is on the practical application of the economics of money and banking to the financial institution. Topics include the structure of the commercial banking system and the nature and functions of money. Bank investments, loans, earnings, and capital are also covered. The Federal Reserve System, The Treasury Department, and the changing international monetary system are included. RLC ONLY

BANKING AND FINANCE
(BF) 105 (3)
COMPARATIVE FINANCIAL INSTITUTIONS (3 LEC.)

The nature, functions and relationships of different financial institutions are explored. Money markets and capital are included. Banking, savings and loan, and financial credit institutions are investigated. The role, characteristics, operations, capabilities and customer orientation of each are noted. The effect of state and federal regulatory agencies is also covered. RLC ONLY

BANKING AND FINANCE
(BF) 106 (2)
INTRODUCTION TO THE SAVINGS ASSOCIATION BUSINESS (2 LEC.)

This course is an introduction to the modern business world and to the role of savings associations. The historical development, present-day organization, competition and future direction of associations are presented. RLC ONLY

BANKING AND FINANCE
(BF) 107 (2)
SAVINGS ASSOCIATION OPERATIONS (2 LEC.)

This course is an overview of the internal operations of a savings association. Topics include the responsibilities to various departments and the interrelationship of all job assignments. RLC ONLY

BANKING AND FINANCE
(BF) 110 (3)
FEDERAL RESERVE SYSTEM (3 LEC.)

The operations and policies of the Federal Reserve System are examined. Attention is given to international monetary affairs, especially the changing role of gold. Economic developments and goals which affect the stability of the American economy are explored. Federal Reserve efforts to adapt and influence the changing economic environment are included. RLC ONLY

BANKING AND FINANCE
(BF) 111 (3)
TRUST FUNCTIONS AND SERVICES (3 LEC.)

This course covers the services of institutions engaged in trust business. Topics include the history of trust services and institutions, trust powers and government supervision, and trust department services. Also included are property, wills, estates, personal agencies, different kinds of trusts, and guardianship. Investment of trust funds and management of property and mortagages are also presented. RLC ONLY

BANKING AND FINANCE
(BF) 112 (3)
INSTALLMENT CREDIT (3 LEC.)

Installment credit is the focus of this course. Topics include credit evaluation, open-end credit, marketing bank services, and collection policies and procedures. Also included are legal aspects, financial statement analysis, installment lending, and leasing. Management of the credit department, insurance and rate structure and yields are also covered. RLC ONLY

BANKING AND FINANCE
(BF) 113 (3)
CREDIT CARD BANKING (3 LEC.)

This course examines the operation of a bank charge plan. It briefly examines the marketing of credit cards. RLC ONLY

BANKING AND FINANCE
(BF) 114 (3)
TELLER TRAINING (2 LEC., 1 LAB)

The basics of teller operation are presented. The fundamentals of negotiable instruments and the care and handling of money are included. Other topics are deposits, checking and savings transactions, special teller functions, and balancing, cashing, and paying checks. The importance of public relations in the teller's job security measures, fraud and robbery are also covered. RLC ONLY

BANKING AND FINANCE
(BF) 115 (3)
CREDIT AND COLLECTION PRINCIPLES (3 LEC.)

This course examines credit and collections. Topics include the nature and function of credit, types of credit and bank and commercial credit. Also covered are credit risk, sources of information, analysis of agency reports, interchange services and collection procedures. RLC ONLY

BANKING AND FINANCE
(BF) 116 (1)
CONSTRUCTION LENDING (1 LEC.)

Construction lending in commerical banks is presented. Topics include an analysis of applications, permanent financing and loan participations and servicing. Commitment procedures, bonding and developer guarantees, and advances are covered. Inspections, legal work, unsecured construction financing, and land development loans are studied. Bank relationships with mortgage bankers are also included. RLC ONLY

BANKING AND FINANCE
(BF)
117 (2)
LETTERS OF CREDIT (2 LEC.)

This course focuses on letters of credit. Shipping documents, mechanics of letters of credit, payment, reimbursement, and document examination are all included. RLC ONLY

BANKING AND FINANCE
(BF) 118 (1)
INSTALLMENT LOAN INTERVIEWS (1 LEC.)

This course introduces the techniques of interviewing a loan customer. Topics include Regulation B requirements and the handling of problem customers. RLC ONLY

BANKING AND FINANCE
(BF) 119 (1)
NEW ACCOUNTS (1 LEC.)

Basic problems in working with new bank accounts are surveyed. The function of the new account and its relationship with marketing are described. Various legal questions are explored, and the legal rights of survivorship are examined. RLC ONLY

BANKING AND FINANCE
(BF) 120 (1)
SELLING BANK SERVICES (1 LEC.)

The recognition and meeting of customer's needs are the focus of this course. Topics include checking accounts, savings accounts, savings services, loans to individuals, safe deposit, travelers checks and cross-selling. RLC ONLY

BANKING AND FINANCE
(BF) 121 (1)
LOSS PREVENTION (1 LEC.)

This course covers check examination and cashing. Check swindles, identification with and without credentials, holdups and security procedures are all included. RLC ONLY

BANKING AND FINANCE
(BF) 122 (1)
SAFE DEPOSIT (1 LEC.)

Safe deposit operations are presented. Security concerns, access, insurance, contracts, and powers of attorney are included. Customer relations, record-keeping and safekeeping procedures are also covered. RLC ONLY

BANKING AND FINANCE
(BF) 123 (1)
LOAN AND DISCOUNT (1 LEC.)

This course emphasizes promissory notes. Topics include calculating interest and discounting commercial paper. Guarantees and general collateral agreements are also covered. Processing documents are also covered. Processing documents which accompany notes secured by stocks, bonds and savings account passbooks is presented. The concepts of attachment, perfection, priority, default and foreclosure are also included. RLC ONLY

BANKING AND FINANCE
(BF) 124 (1)
STOCKS AND BONDS (1 LEC.)

The nature and function of stocks and bonds are presented. Topics include the transfer of ownerships and the kinds of stocks, bonds, and government securities. RLC ONLY

BANKING AND FINANCE
(BF) 125 (3)
SAVINGS ASSOCIATION LENDING (3 LEC.)

This course introduces the lending operations of procedures for handling conventional family mortgage loans, home improvement loans, and mobile home loans. Savings association lending is included. The role of government in home financing, the management of real estate owned and whole loan sales and participations are also studied. RLC ONLY

BANKING AND FINANCE
(BF) 200 (3)
CREDIT UNION MANAGEMENT AND ADMINISTRATION (3 LEC.)

This course covers administration and provision of member services. Topics include loan policies, financial planning and analysis, personnel policies, member relations, delinquency control and collections and risk management. RLC ONLY

BANKING AND FINANCE
(BF) 201 (3)
ADVANCED CREDIT ANALYSIS (3 LEC.)

Prerequisite: Banking and Finance 115. The techniques of making decisions about credit are studied. Methods of financial analysis are discussed and applied to the solution of business problems. Risk appraisal is also studied in terms of general economic conditions, the natures of particular businesses and the conditions and trends in various industries. RLC ONLY

BANKING AND FINANCE
(BF) 202 (3)
CREDIT LAW (3 LEC.)

Laws regarding credit are examined. Emphasis is on credit regulation and commercial and consumer laws in Texas. RLC ONLY

BANKING AND FINANCE
(BF) 203 (3)
PUBLIC RELATIONS AND MARKETING OF FINANCIAL SERVICES (3 LEC.)

This course describes the importance of public relations to the finance industry. Public relations is considered for the industry as a whole and also for individual institutions, such as commerical banks, savings and loan associations and credit unions. Emphasis is also placed on the promotion and marketing of financial services and the evaluation of different marketing practices. RLC ONLY

BANKING AND FINANCE
(BF) 204 (3)
FEDERAL REGULATIONS OF BANKING (3 LEC.)

The federal regulation of banking is covered. Topics include regulatory agencies, bank charters, bank reports and examinations, limitations on operations, and the regulation of expansion. Emphasis is on bank supervision rather than influence through fiscal and monetary policies. RLC ONLY

BANKING AND FINANCE
(BF) 205 (3)
ANALYZING FINANCIAL STATEMENTS (3 LEC.)

Prerequisite: Accounting 201. This course focuses on the characteristics and analysis of financial statements. The goals, methods, and tools of analysis are covered. Topics for analysis include profit and loss, accounts receivable, inventories, projected statements, cash budgets, and balance sheets. The relationship of balance sheet accounts to sales is also covered. RLC ONLY

BANKING AND FINANCE (BF) 206 (3)
NEGOTIABLE INSTRUMENTS AND THE PAYMENTS MECHANISM (3 LEC.)

This course presents the legal aspects of negotiable instruments. Emphasis is on federal and state banking statutes, court decisions, and administrative regulations. Topics include the legal aspects of deposit, collection, dishonor and return, and payment of checks and cash items. The relationship of various parties within a bank and between depositors are explored. Some legal aspects of other bank operations are also introduced. RLC ONLY

BANKING AND FINANCE (BF) 207 (2)
SAVINGS ACCOUNT ADMINISTRATION (2 LEC.)

The administration of savings accounts is described. Topics include insurance, procedures for opening accounts, and procedures for handling inactive accounts. Loans secured by savings accounts and creditor actions in reaching debtors' accounts are also covered. Liquidity levels, advertising, and additional services to savers are included. RLC ONLY

BANKING AND FINANCE (BF) 208 (3)
FINANCIAL COUNSELING AND CREDIT GRANTING (3 LEC.)

This course covers credit applicant interview and relations, credit investigation, determining credit worthiness, the credit/loan decision, loan rejections, legal considerations, and disclosure. Family resource management, consumer decision making, member benefits, counseling techniques, and applicant personalities are also presented and discussed. RLC ONLY

BIOLOGY (BIO) 101 (4)
GENERAL BIOLOGY (3 LEC., 3 LAB.)

This course is a prerequisite for all higher level biology courses and should be taken in sequence. Topics include the cell, tissue, and structure and function in plants and animals. Laboratory fee.

BIOLOGY (BIO) 102 (4)
GENERAL BIOLOGY (3 LEC., 3 LAB.)

This course is a continuation of Biology 101. Topics include Mendelian and molecular genetics, evolutionary mechanisms, and plant and animal development. The energetics and regulation of ecological communities are also studied. Laboratory fee.

BIOLOGY (BIO) 110 (4)
INTRODUCTORY BOTANY (3 LEC., 3 LAB.)

This course introduces plant form and function. Topics ranging from the cell through organs are included. Emphasis is on the vascular plants, including the taxonomy and life cycles of major plant divisions. Laboratory fee.
CVC, NLC, RLC ONLY

BIOLOGY (BIO) 115 (4)
BIOLOGICAL SCIENCE (3 LEC., 3 LAB.)

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

BIOLOGY (BIO) 116 (4)
BIOLOGICAL SCIENCE (3 LEC., 3 LAB.)

Selected topics in biological science are presented for the non-science major. Topics include the systems of the human body, disease, drug abuse, aging, evolution, ecology, and people in relation to their environment. Laboratory fee.

BIOLOGY (BIO) 120 (4)
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)

This coures 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. No science background is presupposed. Major topics include cell structure and function, organization of the body, tissues, organs, the blood and cardiovascular system, and the respiratory system. Emphasis is on homeostasis. Laboratory fee. NOT AT NLC, RLC

BIOLOGY (BIO) 121 (4)
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)

Prerequisites: Biology 120. This course is a continuation of Biology 120. Major topics include the neuro-muscular, digestive, excretory, and endocrine systems. Laboratory fee.
NOT AT NLC, RLC

BIOLOGY (BIO) 123 (4)
APPLIED ANATOMY AND PHYSIOLOGY (3 LEC., 2 LAB.)

This course surveys human anatomy and physiology. The various body systems are studied and examined. This course is suggested for students of the health occupations in accordance with their program requirements. It is open to other students. This course will apply toward meeting the science requirement for non-science majors. No previous science background is presumed. Laboratory fee. ECC ONLY

BIOLOGY (BIO) 203 (4)
INTERMEDIATE BOTANY (3 LEC., 3 LAB.)

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. Laboratory fee.
NOT AT EFC, ECC

BIOLOGY (BIO) 211 (4)
INVERTEBRATE ZOOLOGY (3 LEC., 3 LAB.)

Prerequisite: 8 hours of biological science. This course surveys the major groups of animals below the level of chordates. Consideration is given to phylogeny, taxonomy, morphology, physiology, and biology of the various groups. Relationships and importance to higher animals and humans are stressed. Laboratory fee.
CVC, EFC, RLC ONLY

BIOLOGY (BIO) 216 (4)
GENERAL MICROBIOLOGY (3 LEC., 4 LAB.)

Prerequisite: Biology 102 or the consent of the instructor. Microbes are studied. Topics include growth, reproduction, nutrition, genetics, and ecology of micro-organisms. Laboratory activities constitute a major part of the course. Laboratory fee.

BIOLOGY (BIO) 217 (4)
FIELD BIOLOGY (3 LEC., 4 LAB.)

Prerequisite: Eight hours of biological science or the consent of the division chairperson. Local plant and animal life are surveyed in relationship to the environment. Aquatic and terrestrial communities are studied with reference to basic ecological principles and techniques. Emphasis is upon classification, identification, and collection of specimens in the field. This course may be repeated for credit. NOT AT MVC

BIOLOGY (BIO) 221 (4)
ANATOMY AND PHYSIOLOGY I (3 LEC., 3 LAB.)

Prerequisite: Biology 102 or the consent of the instructor. This course examines the skeletal, muscular, and circulatory systems as related to humans. Emphasis is on structure, function, and the interrelationships of the systems. Laboratory fee.

BIOLOGY (BIO) 222 (4)
ANATOMY AND PHYSIOLOGY II (3 LEC., 3 LAB.)

Prerequisite: Biology 221 or the consent of the instructor. Second course of a two course sequence. Structure and function as related to the human digestive, nervous, respiratory, reproductive, and endocrine systems. Emphasis placed on the interrelationships of these systems. Laboratory fee.

BIOLOGY (BIO) 224 (4)
ENVIRONMENTAL BIOLOGY (3 LEC., 3 LAB.)

Prerequisite: 6 hours of biology. The principles of aquatic and terrestial communities are presented. Emphasis is on the relationship of these principles to the problems facing people in a modern technological society. Laboratory fee.
NOT AT MVC, RLC

BIOLOGY (BIO) 226 (4)
GENETICS (3 LEC., 3 LAB.)

This course focuses on genetics. Topics include Mendelian inheritance, recombination 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.
NOT AT EFC, MVC, RLC

BIOLOGY (BIO) 230 (4)
MAMMALIAN PHYSIOLOGY (3 LEC., 3 LAB.)

Prerequisite: 12 hours of biology, 8 hours of inorganic chemistry, or concurrent registration in organic chemistry, and the consent of the instructor. This course is a study of the function of various mammaliam systems. Emphasis is on interrelationships. Instruments are used to measure various physiological features. Laboratory fee. CVC, NLC ONLY

BIOLOGY (BIO) 235 (4)
COMPARATIVE ANATOMY OF THE VERTEBRATES (3 LEC., 4 LAB.)

Prerequisites: Biology 101 and 102. For science majors and pre-medical and pre-dental students. Major groups of vertebrate class is studied. Emphasis is on morphology and evolutionary relationships. Laboratory fee.
NOT AT BHC, ECC, MVC

BLUEPRINT READING (BPR) 177 (2)
BLUEPRINT READING (1 LEC., 3 LAB.) (64 CONTACT HOURS)

Engineering drawings are described and explained. Topics include multiview projection, sections, auxiliaries, bill of materials, symbols, notes, conventions, and standards. The skills of visualization, dimensioning, and sketching of machine parts are covered. CVC, MVC, NLC ONLY

BLUEPRINT READING (BPR) 178 (2)
BLUEPRINT READING (1 LEC., 3 LAB.) (64 CONTACT HOURS)

Prerequisite: Blueprint Reading 177. The different types of prints are read. More complex prints are included. Types of prints include machine, piping, architectural, civil, structural, electrical, electronic, numerical control documents, and aircraft. Calculations required in blueprint reading are emphasized. MVC ONLY

BUSINESS (BUS) 105 (3)
INTRODUCTION TO BUSINESS (3 LEC.)

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

BUSINESS (BUS) 143 (3)
PERSONAL FINANCE (3 LEC.)

Personal financial issues are explored. Topics include financial planning, insurance, budgeting, credit use, home ownership, savings, investment, and tax problems. NOT AT ECC

BUSINESS 157
SMALL BUSINESS, BOOKKEEPING AND ACCOUNTING PRACTICES (3 LEC.)

The essentials of business accounting followed by how to prepare and analyze basic financial statements pertinent to all business operators.

BUSINESS (BUS) 234 (3)
BUSINESS LAW (3 LEC.)

This course presents the historical and ethical background of the law and current legal principles. Emphasis is on contracts, property, and torts.

BUSINESS (BUS) 237 (3)
ORGANIZATIONAL BEHAVIOR (3 LEC.)

The persisting human problems of administration in modern organizations are covered. The theory and methods of behavioral science as they relate to organizations are included.

BUSINESS

(See Cooperative Work Experience)
701, 711, 801, 811 (1)
702, 712, 802, 822 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)

CARPENTRY (CAR) 101 (3)
WOODWORKING TOOLS AND MATERIALS (90 CONTACT HOURS)

This course focuses on the use of woodworking tools and equipment. Machines used include the table saw, jointer, planer, radial arm saw, router, sander, and various portable power tools. Proper safety procedures are emphasized. Laboratory fee. RLC ONLY

CARPENTRY (CAR) 102 (3)
SITE PREPARATION (90 CONTACT HOURS)

Knowledge and skills for site preparation are presented. Included are laying out and constructing foundations for domestic buildings, constructing and placing piers, erecting concrete foundation forms, and pouring concrete foundations. Laboratory fee. RLC ONLY

CARPENTRY (CAR) 103 (1)
CONSTRUCTION SAFETY (30 CONTACT HOURS)

Construction safety is covered. This course is based on standards of the Occupational Safety and Health Administration for residential commercial construction. NLC ONLY

CARPENTRY (CAR) 104 (3)
RESIDENTIAL FRAMING (90 CONTACT HOURS)

Erection of frame structures is the focus of this course. Both balloon and western framing are included. The construction of floor systems, ceilings, and walls is also covered. Safety procedures are emphasized. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 105 (3)
ROOF FRAMING I (90 CONTACT HOURS)

This course covers the knowledge and skills needed to lay rafters of all types. The cutting and erecting of rafters for gable, shed, and gambrel roof are included. The styles and terminology of roof framing are also included. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 106 (3)
EXTERIOR TRIM AND FINISH (90 CONTACT HOURS)

Exterior wall coverings, roof cornice, and roofing are the topics of this course. Wall coverings, roof sheathing, shingles, and cornice are applied to different styles of roofs and buildings. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 107 (3)
CONSTRUCTION COST ESTIMATING (48 CONTACT HOURS)

Prerequisite: Blueprint Reading 177. This course covers cost estimates for residential and small commercial structures. Estimates are made from blueprints and specifications. Emphasis is on the process of bid preparation. NLC ONLY

CARPENTRY (CAR) 108 (3)
MODERN CONSTRUCTION PRACTICES (90 CONTACT HOURS)

The basic terminology used in commercial construction is surveyed. The design and erection of tilt-up wall construction are studied. The erection and study of pre-cast panels and other new systems for commercial building are included. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 109 (3)
CONCRETE SLABS IN COMMERCIAL BUILDING (90 CONTACT HOURS)

The different designs and systems used in concrete slabs are examined. Both below grade and suspended slabs are included. Emphasis is on practical knowledge in the erection, shoring and scaffolding of slabs. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 201 (3)
CABINET BUILDING I (90 CONTACT HOURS).

The design and layout of modern cabinets are presented. Emphasis is on quality work. Included are making material lists, drafting cabinet details, and installing factory-built cabinets. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 202 (3)
CABINET BUILDING II (90 CONTACT HOURS)

This course focuses on cabinet designs and construction. All stages from rough materials to a finished product are covered. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 203 (3)
STAIR BUILDING (90 CONTACT HOURS)

The knowledge and skills needed in building stairs are presented. Included are riser and tread calculation, material estimates, layout, and construction. The course also covers the construction of stair forms for concrete stairs. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 204 (3)
COMMERCIAL WALL FORMS (90 CONTACT HOURS)

Wall systems are examined. Different types and systems of construction are covered. Included are basement walls, retaining walls, patented walls, and job-built walls. Emphasis is on the erection of these walls. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 205 (3)
ROOFING FRAMING II (90 CONTACT HOURS)

Hip and mansard roof systems are presented. Layouts and cutting and erection of each type of roof system are covered. The design and erection of a truss roof system is also included. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 206 (3)
VERTICLE PIERS AND COLUMNS (90 CONTACT HOURS)

The construction of piers and concrete columns is the focus of this course. Different forms are studied. Emphasis is on the layout and erection of different systems. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 208 (3)
INTERIOR FINISH I (90 CONTACT HOURS)

This course covers interior finish. Cutting, applying, and finishing paneling is included. Dry wall and trim are also included. The fitting and hanging of interior doors and installing of hardware are covered. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 209 (3)
INTERIOR FINISH II-COMMERCIAL (90 CONTACT HOURS)

This course covers interior finish of commercial buildings. Included are store fronts, metal frame walls and floor systems, moveable partitions, and dropped and suspended ceiling systems. Layout and erection of systems are practiced. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 210 (3)
HORIZONTAL BEAM FORM AND FIRE ENCASEMENT FORMS (90 CONTACT HOURS)

The design of horizontal beams and fireproof encasement forms is studied. Different types of materials and commercial systems are included. Emphasis is on safety. Laboratory fee. NLC ONLY

CARPENTRY (CAR) 211 (1)
PROPERTIES OF CONCRETE (30 CONTACT HOURS)

The nature of concrete is explored. Emphasis is on the manufacturing of concrete, the selection and design of concrete, and methods used in placing and finishing concrete. Laboratory fee. NLC ONLY

CARPENTRY (CAR)
(See Cooperative Work Experience)

CHEMISTRY (CHM) 101 (4)
GENERAL CHEMISTRY (3 LEC., 3 LAB.)

Prerequisite: Developmental Mathematics 093 or the equivalent. This course is for science and science-related majors. It covers the laws and theories of matter. The laws and theories are used to understand the properties of matter, chemical bonding, chemical reactions, the physical states of matter, and changes of state. The fundamental principles are applied to the solution of quantitative problems relating to chemistry. Laboratory fee.

CHEMISTRY (CHM) 102 (4)
GENERAL CHEMISTRY (3 LEC., 3 LAB)

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

CHEMISTRY (CHM) 115 (4)
GENERAL CHEMISTRY (3LEC., 3 LAB.)

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

CHEMISTRY (CHM) 116 (4)
GENERAL CHEMISTRY (3 LEC., 3 LAB.)

Prerequisite: Chemistry 115. This course is for non-science majors. It covers oganic chemistry and biochemistry. The important classes of organic compounds are surveyed. The concept of structure is the central theme. Biochemistry topics include carbohydrates, proteins, lipids, chemistry of heredity, disease and therapy, and plant biochemistry. Laboratory fee.

CHEMISTRY (CHM) 170 (3)
CHEMISTRY OF FLAMMABLE MATERIALS (3 LEC.)

Prerequisite: Chemistry 116. Characteristics and behavior of various materials that burn or react violently are studied. Flammable liquids, combustible solids, and gases are included. Storage, transportation, and handling are covered. Emphasis is on emergency situations and methods of control. ECC ONLY

CHEMISTRY (CHM) 201 (4)
ORGANIC CHEMISTRY I (3 LEC., 4 LAB.)

Prerequisite: Chemistry 102. This course is for science and science-related majors. It introduces organic chemistry. The fundamental types of organic compounds are presented. Their nomenclature, classification, reactions, and applications are included. The reactions of aliphatic and aromatic compounds are discussed in terms of modern electronic theory. Emphasis is on reaction mechanisms, stereo-chemistry, transition state theory, and organic synthesis. Laboratory fee.

CHEMISTRY (CHM) 202 (4)
ORGANIC CHEMISTRY II (3 LEC., 4 LAB.)

Prerequisite: Chemistry 201. This course is for science and science-related majors. It is a continuation of Chemistry 201. Topics include aliphatic and aromatic systems, polyfunctional compounds, amino acids, proteins, carbohydrates, sugars, and heterocyclic and related compounds. Instrumental techniques are used to identify compounds. Laboratory fee.

CHEMISTRY (CHM) 203 (4)
QUANTITATIVE ANALYSIS (2 LEC.,6 LAB.)

Prerequisite: Chemistry 102, Mathematics 101 or Mathematics 104 or the equivalent. Principles for quantitative determinations are presented. Topics include gravimetry, oxidation-reduction, indicators, and acid-base theory. Gravimetric and volumetric analysis is emphasized. Colorimetry is introduced. Laboratory fee.
NOT AT EFC

CHEMISTRY (CHM) 205 (2)
CHEMICAL CALCULATIONS (2 LEC.)

Prerequisite: Chemistry 102. Chemical calculations are reviewed. Emphasis is on stoichiometry and chemical equilibrium. BHC, CVC, RLC ONLY

CHEMISTRY (CHM) 234 (4)
INSTRUMENTAL ANALYSIS (2 LEC., 6 LAB.)

Prerequisite: Chemistry 203 or the consent of 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, eletrophoresis, flame photometry, and atomic absorption spectrophotometry as analytical tools. Laboratory fee.

BHC, CVC, RLC ONLY

CHILD DEVELOPMENT (CD) 121 (4)
INTRODUCTION TO EARLY CHILDHOOD DEVELOPMENT PROGRAMS AND SERVICES (120 CONTACT HOURS)

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 preschools and child care centers in the community. BHC ONLY

CHILD DEVELOPMENT (CD) 122 (4)
EARLY CHILDHOOD LEARNING ENVIRONMENTS, ACTIVITIES AND MATERIALS (120 CONTACT HOURS)

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 for multi-age children. BHC ONLY

CHILD DEVELOPMENT (CD) 123 (3)
BASIC FIRST AID,
NUTRITION AND HEALTH CARE
OF YOUNG CHILDREN (90 CONTACT HOURS)

This course is a study of accident prevention methods, basic first aid techniques, nutrition information, meal planning and health care for young children. Laboratory experience includes earning of a first aid certificate, and observation of resources and child care facilities serving young children and their families. BHC ONLY

CHILD DEVELOPMENT (CD) 135 (4)
SURVEY OF CHILD SERVICE
PROGRAMS (3 LEC., 2 LAB.)

The history of the child care movement and the laws of child care facilities are covered. Emphasis is on a good environment for children in group facilities. Agencies and schools for young children in the community are observed. EFC ONLY

CHILD DEVELOPMENT (CD) 137 (4)
LEARNING PROGRAMS FOR
YOUNG CHILDREN (3 LEC., 2 LAB.)

The methods of working with young children are explored. Emphasis is on materials to provide the greatest experience and learning. Participation in child care facilities in the community is included. EFC ONLY

CHILD DEVELOPMENT (CD) 139 (4)
ENVIRONMENTAL SETTINGS
FOR INFANT AND TODDLER
CARE (120 CONTACT HOURS)

This course is a study of programs designed to promote positive growth in infants and toddlers, ages 0-3 years. Elements in an infant/toddler program concerning space, equipment, personnel and curriculum are included. The laboratory experience includes observation and participation in the parent/child study center and off-campus infant/toddler sites.
BHC, EFC ONLY

CHILD DEVELOPMENT (CD) 140 (3)
CHILD GROWTH AND
BEHAVIOR, PRENATAL
THROUGH THREE (3 LEC.)

This course focuses on the principles of normal child growth and development from the prenatal period through three years of age. Emphasis is on physical, intellectual, emotional, and social growth. EFC ONLY

CHILD DEVELOPMENT (CD) 141 (3)
CHILD GROWTH AND
BEHAVIOR, FOUR THROUGH
NINE (3 LEC.)

This course focuses on the principles of normal child growth and development from four through nine years of age. Emphasis is on physical, intellectual, emotional, and social growth. EFC ONLY

CHILD DEVELOPMENT (CD) 142 (3)
EARLY CHILDHOOD DEVELOPMENT, 0-3 YRS.
(90 CONTACT HOURS)

This course covers the principles of normal child growth and development from 0-3 years of age. Emphasis is on physical, intellectual, emotional, and social growth. Laboratory experience consists of participation in designated centers caring for infants and young children. BHC ONLY

CHILD DEVELOPMENT (CD) 143 (3)
EARLY CHILDHOOD DEVELOPMENT, 3-5 YRS.
(90 CONTACT HOURS)

This course covers the principles of normal child growth and development from 3-5 years of age. Emphasis is on physical, intellectual, emotional, and social growth. The laboratory experience will consist of participation in designated child care facilities for multi-age children. BHC ONLY

CHILD DEVELOPMENT (CD) 144 (3)
EARLY CHILDHOOD DEVELOPMENT, 5-8 YRS. (90 CONTACT HOURS)

This course covers the principles of normal child growth and development from 5-8 years of age. Emphasis is on physical, intellectual, emotional, and social growth. Participation in designated child care centers and schools is included. Special attention is given to after-school care. BHC ONLY

CHILD DEVELOPMENT (CD) 150 (3)
NUTRITION, HEALTH AND SAFETY OF THE YOUNG CHILD (2 LEC., 2 LAB.)

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. EFC ONLY

CHILD DEVELOPMENT (CD) 201 (3)
ADOLESCENT DEVELOPMENT AND SOCIETY(3 LEC.)

Prerequisites: Child Development 140 and Human Development 106 or Psychology 105. This course presents the physical, emotional, and social development of the pre-adolescent and adolescent. The impact of physical and psychological changes on family and social relationships is investigated. Also covered are the long-term effects of adolescent development on the individual's vocational and academic interests, values, and interpersonal relationships. EFC ONLY

CHILD DEVELOPMENT (CD) 221 (3)
INDIVIDUAL NEEDS OF YOUNG CHILDREN (90 CONTACT HOURS)

This course is a study of early childhood experiences and programs that meet the individual needs of young children. Emphasis is on children with special needs in the areas of physical, mental, social and emotional development, as well as gifted and talented children. The laboratory experience includes keeping of a journal relating to observation of and participation with young children in special care schools and centers and interaction with parents and community resources. BHC ONLY

CHILD DEVELOPMENT (CD) 222 (3)
INTRODUCTION TO ADMINISTRATION OF PRESCHOOL/CHILD CARE CENTERS (90 CONTACT HOURS)

This course is a study of administration and management of preschool and child care centers. Emphasis is on supervision, operating procedures, personnel policies, budgeting and responsibilities to parents and community. The laboratory experience includes participation with directors of preschools and child care centers. BHC ONLY

CHILD DEVELOPMENT (CD) 223 (3)
GUIDING YOUNG CHILDREN (90 CONTACT HOURS)

This course is a study of appropriate ways for 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 laboratory experience includes observation of and participation with young children in child care facilities and interpretation of anecdotal records and case studies of young children. BHC ONLY

CHILD DEVELOPMENT (CD) 233 (4)
A SURVEY OF MODEL PROGRAMS (2 LEC., 5 LAB.)

Prerequisites: Child Development 135, 137, 140 and 141. A survey of model programs, the learning theories on which these programs are based, and the practical application of these programs in the various child care settings are studied. The laboratory experience will consist of participating in a designated child care setting for a minimum of five hours per week. EFC ONLY

CHILD DEVELOPMENT (CD) 235 (5)
APPLICATION OF LEARNING THEORIES (3 LEC., 5 LAB.)

Prerequisite: Child Development 233. Emphasis will be placed on developing child care programs which meet the mental, social, emotional and physical needs of the individual child. Areas of focus will include viewing the child as a part of a family, cultural and child rearing values and expectations, the sequence of learning experiences for young children, the readiness for learning skills, and experience for young children in social living. The laboratory experience will consist of participating in a designated child care setting for a minimum of five hours per week. EFC ONLY

CHILD DEVELOPMENT (CD) 236 (3)
CHILDHOOD PROBLEMS (3 LEC.)

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. EFC ONLY

CHILD DEVELOPMENT (CD) 238 (3)
MANAGEMENT SYSTEMS OF PRESCHOOL CENTERS (3 LEC.)

The management of preschool/day care centers is studied. Topics include budgeting, record-keeping, food, health and referral services, and personnel practices. EFC ONLY

CHILD DEVELOPMENT (CD) 239 (3)
STUDIES IN CHILD GUIDANCE (2 LEC., 2 LAB.)

Guidance in early childhood is explored. Both home and group experiences are included. Emphasis is on the interpretation of anecdotal records and case studies of young children. EFC ONLY

CHILD DEVELOPMENT (CD) 240 (2)
INTERNSHIP (10 LAB.)

The student works in a child care center. Instructors assist students in setting goals, planning activities, providing appropriate materials, implementing plans, and self-evaluation. EFC ONLY

CHILD DEVELOPMENT (CD) 241 (3)
PARENTS AND THE CHILD CARE-GIVER (90 CONTACT HOURS)

Relationships between care-givers, teacher and parents of young children are studied. Emphasis is on ways to develop parental involvement in child care facilities. The laboratory experience includes keeping of a journal relating to observation of and participation with teachers, parents and young children in group settings. BHC ONLY

CHILD DEVELOPMENT (CD) 242 (3)
ADVANCED ADMINISTRATIVE PRACTICES FOR CHILD CARE FACILITIES (90 CONTACT HOURS)

Registration for this course must be preceded by an interview with a child development instructor. Administrative procedures for child care facilities are presented. Topics include planning, budgeting, personnel, evaluation, and leadership styles. Participation in a designated child care facility under the guidance of the director is included. BHC, EFC ONLY

CHILD DEVELOPMENT (CD) 243 (3)
EARLY CHILDHOOD DEVELOPMENT SPECIAL PROJECTS (90 CONTACT HOURS)

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. BHC ONLY

CHILD DEVELOPMENT (CD) 250 (3)
SUPPORTIVE SERVICES FOR EXCEPTIONAL CHILDREN (2 LEC., 4 LAB.)

The focus of this course is on identifying local, state, and national resources for exceptional children and their families. Referral and resource information for special children is gathered through field studies, community involvement, and independent activities. EFC ONLY

CHILD DEVELOPMENT (CD) 251 (4)
LEARNING PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS (2 LEC., 5 LAB.)

This course focuses on successful model programs for encouraging maximum learning from young children with special needs. Materials, activities, and methods of working with children are examined. EFC ONLY

CHILD DEVELOPMENT (CD) 253 (3)
ABUSE WITHIN THE FAMILY (2 LEC., 2 LAB.)

The symptoms and causes of abusive behaviors within the family are the focus of this course. Emphasis is on developing skills and competencies in working with these families to help them lessen and alleviate abusive behaviors and experiences.
BHC, EFC ONLY

CHILD DEVELOPMENT (CD) 813 (3)
(See Cooperative Work Experience)

COOPERATIVE WORK EXPERIENCE
701, 711, 801, 811 (1)
702, 712, 802, 812 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)

Prerequisite: Completion of two courses in the student's major or instructor/coordinator approval. These courses consist of seminars and on-the-job experience. Theory and instruction received in the courses of the students' major curricula are applied to the job. Students are placed in work-study positions in their technical occupational fields. Their skills and abilities to function successfully in their respective occupations are tested. These work internship courses are guided by learning objectives composed at the beginning of each semester by the students, their instructors, coordinators, and their supervisors at work. The instructors determine if the learning objectives are valid and give approval for credit. BHC, EFC NLY

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

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.

COMMUNICATIONS (COM) 131 (3)
APPLIED COMPOSITION AND SPEECH (3 LEC.)

Communication skills are studied as a means of preparing for one's vocation. Practice in writing letters, applications, resumes, and short reports is included.

COMMUNICATIONS (COM) 132 (3)
APPLIED COMPOSITION AND SPEECH (3 LEC.)

Prerequisite: Communications 131 or consent of instructor. The study of communication processes is continued. Emphasis is on written persuasion directly related to work. Expository techniques in business letters and documented reports are covered. Practice in oral communication is provided.

COMPUTING SCIENCE (CS) 175 (3)
INTRODUCTION TO COMPUTER SCIENCE (3 LEC.)

This course is an introduction to the computer. The history of computers and their cultural impact are explored. Topics include vocabulary, flow charting, data representation, and procedure-oriented languages with general applications.

COMPUTING SCIENCE (CS) 176 (3)
FORTRAN PROGRAMMING (2 LEC., 2 LAB.)

Prerequisite: Mathematics 101 or Data Processing 137. This course provides programming skills for students who need to use the computer in their curriculum, particularly those in the math and science disciplines. Laboratory fee. EFC, MVC, RLC ONLY

COMPUTING SCIENCE (CS) 230 (4)
ADVANCED ASSEMBLY LANGUAGE CODING (3 LEC., 3 LAB.)

Prerequisite: Data Processing 231. The development of programming skills using the assembly language instruction set of the system/360 is covered. Topics include indexing, indexed sequential file organization, table search methods, data and bit manipulations techniques, code translation, advanced problem analysis, and debugging techniques. Floating point operations are introduced. Laboratory fee. ECC ONLY

COMPUTING SCIENCE (CS) 240 (4)
TELECOMMUNICATIONS I (3 LEC., 4 LAB.)

Prerequisite: A minimum of 2 semesters of a high level language and credit in Data Processing 232, or the consent of the instructor. Telecommunications concepts are introduced. Topics include configuration of a teleprocessing network on a third generation computer, vocabulary, modems, terminal configuration, polling simulation, and common carrier characteristics. An existing telecommunications system and a student conceived national data system are investigated, analyzed, and designed. ECC, MVC, RLC ONLY

COMPUTING SCIENCE (CS) 241 (4)
TELECOMMUNICATIONS II (3 LEC., 3 LAB.)

Prerequisite: Computing Science 240. This course is a continuation of Computing Science 240. Topics include basic telecommunications programming, terminal configurations, line configurations, synchronous transmission, asynchronous transmission, and polling techniques at the central unit. Laboratory fee. EFC, MVC, RLC ONLY

COMPUTING SCIENCE (CS) 250 (3)
CONTEMPORY TOPICS IN COMPUTER SCIENCE (3 LEC.)

Prerequisite: A minimum of two semesters of a high level language, or employment in the computer industry and the consent of the instructor. Recent developments and topics of current interest are studied. ECC, MVC, RLC ONLY

COMPUTING SCIENCE (CS) 251 (4)
SPECIAL TOPICS IN COMPUTER SCIENCE AND DATA PROCESSING (3 LEC., 3 LAB.)

Prerequisite: Completion of at least one semester of any of the 5 data processing curriculum options, or employment in the computer industry and the consent of the instructor. Current developments in the rapidly changing field of computer science and data processing are studied. Topics will vary each semester, but may include such areas as basic programming for small computer systems, advanced RPGII concepts, PL/1 programming, or advanced data entry concepts. Laboratory fee. ECC, MVC, RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 121 (3)
CONSTRUCTION MATERIALS, METHODS AND EQUIPMENT I (2 LEC., 3 LAB.)

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. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 122 (3)
CONSTRUCTION MATERIALS, METHODS AND EQUIPMENT II (2 LEC., 3 LAB.)

This course continues the study of construction materials, methods, and equipment. Laboratory fee. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 123 (4)
CONSTRUCTION GRAPHICS (2 LEC., 6 LAB.)

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. Laboratory fee. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 124 (4)
ELECTRICAL AND MECHANICAL EQUIPMENT FOR BUILDINGS (3 LEC., 3 LAB.)

The nature and use of materials and equipment in various systems are explained. Included are plumbing, heating, ventilation, air conditioning, electrical, and conveying systems. The design theories and uses of the completed systems are introduced. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 132 (3)
THE CONSTRUCTION INDUSTRY (3 LEC.)

This coures surveys the growth, magnitude, and economic importance of the construction industry. Emphasis is on understanding the interrelationship between the many trades, professions, and agencies in construction. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 136 (4)
SURVEYING AND MEASUREMENTS (2 LEC., 6 LAB.)

Prerequisite: Mathematics 195 or the equivalent. This course is for students with little or no training in surveying. It covers the theory, methods, equipment, and problems of surveying and measurement. Field work provides the opportunity to apply the theory. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 138 (4)
CONSTRUCTION MANAGEMENT I (3 LEC., 3 LAB.)

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. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 230 (4)
QUALITY CONTROL AND COST CONTROL (3 LEC., 3 LAB.)

Prerequisite: Construction Management and Technology 121, 122, and 234, or the consent of the instructor. Quality control approaches to construction are included. Construction costs and economics are separated, analyzed, and evaluated. Methods to control costs are explored. CPM scheduling and techniques are covered. Laboratory fee. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 231 (3)
CONSTRUCTION CONTRACTS AND SPECIFICATIONS (2 LEC., 3 LAB.)

Prerequisite: Construction Management and Technology 121, 122, and 123 or consent of 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. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 234 (4)
ESTIMATING (2 LEC., 6 LAB.)

Prerequisite: Credit or concurrent enrollment in Construction Management and Technology 123 and 231 or consent of the instructor. Construction estimation is presented. Topics include quality surveying and the interpretation and uses of bid documents. Students learn to compute and assemble labor and material costs, unit and lump sum costs, and preliminary and final estimates. Laboratory fee. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 236 (4)
BUILDING CODES AND SAFETY (3 LEC., 3 LAB.)

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. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 237 (4)
SOILS, FOUNDATIONS AND REINFORCED CONCRETE (3 LEC., 3 LAB.)

Prerequisite: 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. RLC ONLY

CONSTRUCTION MANAGEMENT AND TECHNOLOGY (CMT) 238 (4)
CONSTRUCTION MANAGEMENT II (3 LEC., 3 LAB.)

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. RLC ONLY

COOPERATIVE WORK EXPERIENCE
701, 711, 801, 811 (1)
702, 712, 802, 812 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)

Prerequisite: Completion of two courses in the student's major or instructor or coordinator approval. These courses consist of seminars and on-the-job experience. Theory and instruction received in the courses of the students' major curricula are applied to the job. Students are placed in work-study positions in their technical occupational fields. Their skills and abilities to function successfully in their respective occupations are tested. These work internship courses are guided by learning objectives composed at the beginning of each semester by the students, their instructors or coordinators, and their supervisors at work. The instructors determine if the learning objectives are valid and give approval for credit.

DANCE (DAN) 116 (1)
REHEARSAL AND PERFORMANCE (2 LAB.)

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.

DANCE (DAN) 150 (3)
BEGINNING BALLET I (1 LEC., 3 LAB.)

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 excercises and centre floor combinations are given. Laboratory fee.
NOT AT CVC, EFC

DANCE (DAN) 151 (3)
BEGINNING BALLET II (1 LEC., 3 LAB.)

Prerequisite: Dance 150. This course is a continuation of Dance 150. Emphasis is on expansion of combinations at the barre. Connecting steps learned at centre are added. Jumps and pirouettes are introduced. Laboratory fee.
NOT AT CVC, EFC

DANCE (DAN) 155 (1)
JAZZ I (3 LAB.)

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.
NOT AT CVC, EFC

DANCE (DAN) 156 (1)
JAZZ II (3 LAB.)

Prerequisite: Dance 155 or the consent of 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.
NOT AT CVC, EFC

DANCE (DAN) 160 (3)
INTRODUCTION TO DANCE HISTORY (3 LEC.)

A history of dance forms is presented. Primitive, classical, and contemporary forms are included.
ECC, MVC, RLC ONLY

DANCE (DAN) 200 (1)
REHEARSAL AND PERFORMANCE (4 LAB.)

Prerequisite: Dance 116 or the consent of 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.



DANCE (DAN) 250 (3)
INTERMEDIATE BALLET I (1 LEC., 3 LAB.)

Prerequisite: Dance 151. The development of ballet technique is continued. More complicated exercises at the barre and centre floor are included. Emphasis is on long series of movements, adagio and jumps. Precision of movement is stressed. Laboratory fee.
NOT AT CVC, EFC, NLC

DANCE (DAN) 251 (3)
INTERMEDIATE BALLET II (1 LEC., 3 LAB.)

Prerequisite: Dance 250. This course begins pointe work for women. Specialized beats and tours are begun for men. Individual proficiency and technical virtuosity are developed. Laboratory fee.

NOT AT CVC, EFC, NLC

DANCE (DAN) 252 (1)
COACHING AND REPERTOIRE (2 LAB.)
Prerequisite: Dance 251 and the consent of 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.
NOT AT CVC, EFC, NLC

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

DATA PROCESSING (CS) 131 (3)
RPG PROGRAMMING (2 LEC., 2 LAB.)
Prerequisite: Data Processing 133 or the consent of the instructor. This course is for persons who require RPGII in job. Programming skills using RPGII are developed. Emphasis is on language techniques and not on operation and functioning of the equipment. Programming problems emphasize card processing, and will include basic listing, multicard records, and multi-file processing. Laboratory fee.
ECC, MVC, RLC ONLY

DATA PROCESSING (DP) 133 (4)
BEGINNING PROGRAMMING (3 LEC., 4 LAB.)
Prerequisites: Data Processing 139 and Computing Science 175 or the consent of the instructor. Concurrent enrollment in Data Processing 138 is advised. This course introduces programming skills using the COBOL language. Skills in problem analysis, flowcharting, coding, testing, and documentation are developed. Programs are designed to provide competency using cards. Laboratory fee. ECC, MVC, RLC ONLY

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

DATA PROCESSING (DP) 137 (3)
DATA PROCESSING MATHEMATICS (3 LEC.)
This course introduces the principles of computer computation. Topics include the number system, fundamental processes, number bases, and the application of mathematics to typical business problems and procedures. ECC, MVC, RLC ONLY

DATA PROCESSING (DP) 138 (3)
DATA PROCESSING LOGIC (3 LEC.)
Prerequisites: Data Processing 139 and Computing Science 175 or the consent of the instructor. Concurrent enrollment in Data Processing 133 is advised. This course presents basic logic needed for problem solving with the computer. Topics include flowcharting standards, techniques for basic logic operations, table search and build techniques, types of report printing, conditional tests, multiple record types, and sequential file maintenance. System flowcharting is introduced. ECC, MVC, RLC ONLY

DATA PROCESSING (DP) 139 (3)
TECHNICIAN (2 LEC., 4 LAB.)
Prerequisite: Credit or concurrent enrollment in Computing Science 175 or the consent of the instructor. The interrelationships among computer

systems, hardware, software, and personnel are covered. The role of personnel in computer operations, data entry, scheduling, data control, and librarian functions is included. Other topics include the importance of job documentations, standards manuals, and error logs. The relationship between operating procedures and the operating system is described. Job control language and system commands are also stressed. The flow of data between the user and the data processing department, and the relationship between operations and the other functional areas within the data processing department are covered. Laboratory fee.
ECC, MVC, RLC ONLY

DATA PROCESSING (DP) 140 (4)
OPERATIONS-CONSOLE (3 LEC., 3 LAB.)

Prerequisites: Data Processing 137 or Mathematics 130, and Data Processing 139, or the consent of the instructor. Operating systems are presented. Emphasis is on operation of a single-partitioned and multiprogramming DOS environment. Opportunity is provided to analyze and respond to system messages in both environments. Laboratory fee. ECC ONLY

DATA PROCESSING (DP) 231 (4)
ADVANCED PROGRAMMING (3 LEC., 4 LAB.)

Prerequisite: Data Processing 136 or the consent of the instructor. This course focuses on the additional language capabilities and third generation hardware concepts. The assembly language instruction set of the IBM 360/370 is used. Included is an in-depth study of the standard instruction set and the decimal feature instructions. Data structure, system organization, linkage conventions, and selected macro-instructions are also presented. Laboratory fee.
ECC, MVC, RLC ONLY

DATA PROCESSING (DP) 233 (4)
OPERATING SYSTEMS AND COMMUNICATIONS (3 LEC., 4 LAB.)

Prerequisite: Data Processing 133 or the consent of the instructor. Concepts and technical knowledge of an operating system, JCL, and utilities are presented. The internal functions of an operating system are analyzed. Training is given in the use of JCL and utilities. The emphasis of the operating system depends on the computer system used. Laboratory fee.
ECC, MVC, NLC ONLY

DATA PROCESSING (DP) 232 (4)
APPLIED SYSTEMS (3 LEC., 4 LAB.)

Prerequisite: Data Processing 136. This course introduces and develops skills to analyze existing systems and to design new systems. Emphasis is on a case study involving all facets of system design from the original source of data to final reports. Flowcharts and documentation are included.
ECC, MVC, NLC ONLY

DATA PROCESSING (DP) 236 (4)
ADVANCED COBOL TECHNIQUES (3 LEC., 4 LAB.)

Prerequisite: Data Processing 133 and 136, or the consent of the instructor. Advanced problem solving techniques are studied using the COBOL programming language. Emphasis is placed on sequential and random processing techniques using disk. Additional ANSI COBOL conventions are covered. Set/search table lookup, sort verb, report writer, and modular programming techniques are included. Laboratory fee. ECC, MVC, NLC ONLY

DATA PROCESSING (DP) 242 (4)
COMPUTER HARDWARE AND DATA BASE SYSTEMS (3 LEC., 4 LAB.)

Prerequisite: Computing Science 175, one year of a high level language, Data Processing 232, or the consent of the instructor. The organization and architecture of large, medium, small, mini, and micro computers are compared. Topics include digital number systems, machine language and assemblers, on-line and off-line data base systems, and data management. Currently used data bases (IMS, TOTAL, ADABAS, etc.) and graphic systems are emphasized. Laboratory fee.
ECC, MVC, NLC ONLY

DATA PROCESSING (DP) 243 (3)
COMPUTER CENTER MANAGEMENT (3 LEC.)

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

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

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

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

DATA PROCESSING (DP) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

DENTAL ASSISTING (DA) 136
GENERAL DENTAL ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB)

The biology of the nine (9) body systems, embryology, and the development of the face and oral cavity are studied. Oral histology, eruption and exfoliation of the primary dentition and eruption of the secondary dentition morphology of the teeth, head, and neck anatomy are included. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 140 (1)
INTRODUCTION TO THE DENTAL PROFESSION (1 LEC.)

This course is a study of dentistry as it has evolved into a profession. The growth, development, and educational background of the dental association and auxiliary associations are described. The way the dental assistant student acquires and retains certification is explained. Personal requirements, professional conduct, and interpersonal relationships of the dental team are included. The legal, ethical, moral, and professional responsibilities of the dentist and auxiliaries are identified. Terminology relating to this course is also included. ECC ONLY

DENTAL ASSISTING (DA) 141 (4)
DENTAL ANATOMY AND PHYSIOLOGY (3 LEC., 3 LAB.)

This course covers the study of embryology and the development of the face and oral cavity. Oral histology, eruption and exfoliation of the primary dentition, and eruption of the secondary dentition are included. The morphology of the teeth and the anatomy and physiology of the head and neck are also covered. Terminology relating to this is included. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 142 (3)
DENTAL ASSISTING I (2 LEC., 4 LAB.)

The function of the dental assistant in chairside assisting is studied. Topics include terminology, safety rules and regulations, care and preparation of equipment and operatories, and seating the patient. The identification and use of dental instruments, are covered, including use of high-velocity suction apparatus. Four-handed sit-down dentistry is also covered, including different methods of passing instruments. The application and removal of rubber dam, application of topical anesthetics, preparation of local anesthetics, and different methods of charting the oral cavity findings are also covered. Laboratory fee. ECC ONL

DENTAL ASSISTING (DA) 143 (2)
DENTAL MICROBIOLOGY AND PATHOLOGY (2 LEC., 1 LAB.)

This course focuses on microbiology relating to methods of sterilization and disinfectants used in caring for dental instruments, equipment, and operatories. Oral pathology is studied, including signs and symptoms of diseases of the hard and soft dental tissues and of the oral cavity. Terminology relating to this course is covered. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 144 (4)
DENTAL MATERIALS I (3 LEC., 3 LAB.)

Prerequisite: "C" average in Dental Assisting 140, 141, 142, and 143. The history, terminology, structure and properties of dental materials are studied. Dental laboratory equipment is presented, and the care and use of it explained. Safety rules and regulations used in the dental laboratory are identified. Weights and measurements and their uses in the dental laboratory are introduced. The techniques and skills of handling various materials are covered, including gypsum products, dental waxes, alginate impression materials, compound and shellac bases, dental cements, restorative materials, thermal basis, cavity liners, and abrasive and polishing agents, gold foils, nuva fill, and sealents are also included. Pouring casts and trimming and finishing study casts are covered. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 145 (2)
DENTAL ROENTGENOLOGY I (2 LEC., 1 LAB.)

Prerequisite: "C" average in Dental Assisting 140, 141, 142, and 143. This course focuses on the history, terminology, and the theory of the roentgen ray. Topics include the care and safety measures of X-ray equipment, radiation, hazards, and safety precautions for the patient and operator. Other topics include the care and storage of film, types of dental films used, and film composition. Exposing, processing, and mounting X-rays are covered, including the use of the open cone bisecting angle technique. Preventing faulty roentgenograms is also covered. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 146 (2)
DENTAL ASSISTING II (2 LEC., 1 LAB.)

Prerequisite: "C" average in Dental Assisting 140, 141, 142, and 143. The dental specialities are studied. Included are endodontics, oral surgery and general anesthetic, orthodontics, pedodontics, periodontics, and prosthodontics. Pathology and public health, preparation, and instrumentation are also covered. The vital



signs of a patient are explained and practice sessions are held. Hospital dentistry is introduced. The use of hand instruments is covered, including removing cement from dental restorations and bands, removing ligature ties, sutures, socket dressing, periodontal packs, and temporary medicinal fillings. Terminology relating to this course is also included. Laboratory fee.ECC ONLY

DENTAL ASSISTING (DA) 240 (2)
DENTAL MATERIALS II (1 LEC., 2 LAB.)

Prerequisite: "C" average in Dental Assisting 144, 145, and 146. This course is a continued study of dental materials. Students use all materials needed for everyday practice in the dental office. New materials are introcuced, such as reversible hydrocolloids, asbestos and wax spacers, custom made trays, rubber base impression material, die stone, inlay wax, investment material, burnout, temporary acrylic jackets or crowns and temporary dentures. Sprueing and casting procedures are included. Finishing castings and repairing prostheses are also covered. Terminology relating to this course is included. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 241 (2)
DENTAL ROENTGENOLOGY II (1 LEC., 2 LAB.)

Prerequisite: "C" average in Dental Assisting 144, 145, and 146. The study of dental X-ray is continued. Long, open cone, and parallel techniques, are introduced. Occlusal films, extraoral films, and panographic procedures are covered. Practice is provided in short and long cone techniques and in processing, mounting, and filing dental films. Terminology relating to this course is included. Laboratory fee. ECC ONLY

DENTAL ASSISTING (DA) 242 (3)
DENTAL OFFICE
ADMINISTRATION I (3 LEC.)

Prerequisite: "C" average in Dental Assisting 144, 145, and 146. Front office routines of the dental office are studied in detail. Topics include dental team responsibilities, office policies for employee and patient, telephone techniques, greeting people, patient information, credit ratings, and appointment control. Referrals, patient charts, check and receipt writing, deposit slips, petty cash, day sheets, recall system inventory and supplies, filing, prescriptions, staff schedules, accounts payable, and banking procedures are also covered. Terminology relating to this course is included. ECC ONLY

DENTAL ASSISTING (DA) 243 (3)
DENTAL ASSISTING CLINIC
SEMINAR I (3 LEC.)

Prerequisite: "C" average in Dental Assisting 144, 145, and 146. Clinical experiences and problems encountered in the internship are shared and discussed. Counseling with individual students is provided. ECC ONLY

DENTAL ASSISTING (DA) 245 (3)
DENTAL OFFICE
ADMINISTRATION II (3 LEC.)

Prerequisite: "C" average in Dental Assisting 240, 241, 242, 243, and 244. This course is a continued study of front office procedures. Topics include collection control, correspondence, office records, laws pertaining to collections and records, and a business summary. Dental payment plans, third party insurance, radiographs in dental care programs, case presentations, income tax records, and patient psychology are also covered. Terminology relating to this course is covered. ECC ONLY

DENTAL ASSISTING (DA)246 (3)
PREVENTATIVE DENTISTRY (3 LEC.)

Prerequisite: "C" average in Dental Assisting 240, 241, 242, 243, and 244. Preventive dentistry is presented. Topics include oral hygiene, use of the phase microscope in preparing dental plaque smears, learning and teaching a preventive program, and diet and nutrition. First aid, and cardiopulmonary resuscitation emergencies are included. Pharmacology and drug and prescription laws applying to the dental office are covered. Terminology relating to this course is included. ECC ONLY

DENTAL ASSISTING (DA) 249 (4)
DENTAL ASSISTING INTERNSHIP I (13 LAB.)

Prerequisite: "C" average in Dental Assisting 144, 145, and 146. Students receive practical assisting experience at chairside in dental clinics, dental schools, and hospital and health agencies in the community. Students rotate among clinics every 5 weeks. ECC ONLY

DENTAL ASSISTING (DA) 250 (1)
DENTAL ASSISTING CLINIC SEMINAR II (3 LEC.)

Prerequisite: "C" average in Dental Assisting 240, 241, 242, 243, and 249. This course involves the sharing of clinical experience and the discussing of problems that have been encountered during the dental assisting internship in dental clinics, hospitals, and offices. Special counseling with individual students is provided. ECC ONLY

DENTAL ASSISTING (DA) 252 (3)
DENTAL ASSISTING INTERNSHIP II (31 LAB.)

Prerequisite: "C" average in Dental Assisting 240, 241, 242, 243, and 249. In this course, students receive practical dental assisting experience at chairside and office procedures experience in private dental offices, dental clinics, dental schools, hospitals, and other health agencies in the community. ECC ONLY

DESIGN (DES) 128 (2)
INTRODUCTION TO MASS PRODUCED APPAREL (2 LEC.)

Mass production in the fashion industry is analyzed. ECC ONLY

DESIGN (DES) 129 (1)
INDUSTRIAL GARMENT CONSTRUCTION (3 LAB.)

The equipment, techniques and skills used in making mass produced apparel are studied. Laboratory fee. ECC ONLY

DESIGN (DES) 135 (3)
TEXTILES (2 LEC., 2 LAB.)

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. ECC ONLY

DESIGN (DES) 136 (3)
FASHION SKETCHING (2 LEC., 4 LAB.)

The structure of the fashion figure is explored. Simple methods for making quick sketches which communicate style information are emphasized. ECC ONLY

DESIGN (DES) 234 (3)
HISTORY OF COSTUME (3 LEC.)

Prerequisite: Design 135. This course traces the development of garments from the earliest times through the 18th century. Emphasis is on the customs which affect styles. ECC ONLY

DESIGN (DES) 235 (3)
HISTORY OF COSTUME (3 LEC.)

Prerequisite: Design 234 or the consent of the instructor. This course traces the development of garments from the 18th century to the present day. Emphasis is on the customs which affect styles. ECC ONLY

DEVELOPMENTAL COMMUNICATIONS (DC) 095 (3)
COMMUNICATION SKILLS (3 LEC.)

This course focuses on strengthening language communications. Topics include grammer, paragraph structure, reading skills, and oral communication. Emphasis is on individual testing and needs.

NOT AT EFC, ECC, RLC

DEVELOPMENTAL COMMUNICATIONS (DC) 120 (3)
COMMUNICATION SKILLS (2 LEC., 2 LAB.)

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. NOT AT EFC, RLC

DEVELOPMENTAL LEARNING
(DL) 094 (1)
LEARNING SKILLS
IMPROVEMENT (2 LAB.)

Learning skills are strengthened. Emphasis is on individual needs and personalized programs. This course may be repeated for a maximum of three credits. NOT AT EFC, NLC, RLC

DEVELOPMENTAL MATHEMATICS

Developmental Mathematics Courses offer a review of mathematics skills. Developmental Mathematics 093 satisfies prerequisites for Mathematics 101, 104, 111, and 115. Developmental Mathematics 091 satisfies prerequisites for Mathematics 130, 139, and 195.

DEVELOPMENTAL MATHEMATICS
(DM) 060 (1)
BASIC MATHEMATICS I (1 LEC.)

This course is designed to give an understanding of fundamental operations. Selected topics include whole numbers, decimals, and ratio and proportions. NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 061 (1)
BASIC MATHEMATICS II (1 LEC.)

This course is designed to give an understanding of fractions. Selected topics include primes, factors, least common multiples, percent, and basic operations with fractions.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 062 (1)
PRE BUSINESS (1 LEC.)

This course is designed to introduce students to business mathematics. Selected topics include discounts and commissions, interest, metric and English measuring systems, area and volume. CVC, ECC, NLC ONLY

DEVELOPMENTAL MATHEMATICS
(DM) 063 (1)
PRE ALGEBRA (1 LEC.)

This course is designed to introduce students to the language of algebra with such topics as integers, metrics, equations, and properties of counting numbers. NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 064 (1)
NURSING (1 LEC.)

This course is designed to develop an understanding of the measurements and terminology in medicine and calculations used in problems dealing with solutions and dosages. It is designed primarily for students in the nursing program. CVC, ECC ONLY

DEVELOPMENTAL MATHEMATICS
(DM) 070 (1)
ELEMENTARY ALGEBRA I (1 LEC.)

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.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 071 (1)
ELEMENTARY ALGEBRA II (1 LEC.)

Prerequisite: Developmental Mathematics 070 or equivalent. This course includes selected topics such as rational numbers, algebraic polynomials, factoring, and algebraic fractions.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 072 (1)
ELEMENTARY ALGEBRA III (1 LEC.)

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.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS
(DM) 073 (1)
INTRODUCTION TO GEOMETRY (1 LEC.)

This course introduces principles of geometry. Axioms, theorems, axiom systems, models of such systems, and methods of proof are stressed.
CVC, ECC, NLC ONLY

DEVELOPMENTAL MATHEMATICS (DM) 080 (1)
INTERMEDIATE ALGEBRA I (1 LEC.)

Prerequisites: Developmental Mathematics 072, 091 or equivalent. This course includes selected topics such as systems of rational numbers, real numbers, and complex numbers.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS (DM) 081 (1)
INTERMEDIATE ALGEBRA II (1 LEC.)

Prerequisite: Developmental Mathematics 080 or equivalent. This course includes selected topics such as sets, relations, functions, inequalities, and absolute values.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS (DM) 082 (1)
INTERMEDIATE ALGEBRA III (1 LEC.)

Prerequisite: Developmental Mathematics 081 or equivalent. This course includes selected topics such as graphing, exponents, and factoring.
NOT AT BHC, EFC, RLC

DEVELOPMENTAL MATHEMATICS (DM) 090 (3)
PRE ALGEBRA MATHEMATICS (3 LEC.)

This course is designed to develop an understanding of addition, subtraction, multiplication, and division of whole numbers, fractions, decimals and percentages and to strengthen basic skills in mathematics. It is the most basic mathematics course and includes an introduction to algebra.

DEVELOPMENTAL MATHEMATICS (DM) 091 (3)
ELEMENTARY ALGEBRA (3 LEC.)

Prerequisite: Developmental Mathematics 090. This course is comparable to the first-year algebra course in high school. It includes special products and factoring, fractions, equations, graphs, functions, and an introduction to geometry.

DEVELOPMENTAL MATHEMATICS (DM) 093 (3)
INTERMEDIATE ALGEBRA (3 LEC.)

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

DEVELOPMENTAL READING

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

DEVELOPMENTAL READING (DR) 090 (3)
TECHNIQUES OF READING/LEARNING (3 LEC.)

Comprehension, vocabulary development, and study skills are the focus of this course. Emphasis is on learning how to learn. Included are reading and learning experiences to strengthen the total educational background of each student. Meeting individual needs is stressed.

DEVELOPMENTAL READING (DR) 091 (3)
TECHNIQUES OF READING AND LEARNING (3 LEC.)

This course is a continuation of developmental reading 090. Meeting individual needs is stressed.

DEVELOPMENTAL WRITING

Students can improve their writing skills by taking Developmental Writing. These courses are offered for one to three hours of credit. Emphasis is on organization skills and research paper styles, and individual writing weaknesses.

DEVELOPMENTAL WRITING (DW) 090 (3)
WRITING (3 LEC.)

Basic writing skills are developed. Topics include spelling, grammar, and vocabulary improvement. Principles of sentence and paragraph structure are also included. Organization and composition are covered. Emphasis is on individual needs and strengthening the student's skills.

DEVELOPMENTAL WRITING (DW) 091 (3)
WRITING (3 LEC.)

This course is a sequel to Writing 090. It focuses on composition. Included are skills of organization, transition, and revision. Emphasis is on individual needs and personalized assignments. Brief, simple forms as well as more complex critical and research writing may be included.

DEVELOPMENTAL WRITING (DW) 092 (1)
WRITING LAB (3 LAB.)

This course is a writing workshop. Students are given instruction and supervision in written assignments. The research paper and editing are both included. NOT AT EFC

DIESEL MECHANICS (DME) 101 (4)
CATERPILLAR DIESEL ENGINE
(120 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Mathematics 195 or consent of instructor. The complete overhaul of a Caterpillar Diesel Engine is conducted. Included are the removal disassembly, servicing, and assembly of each major component. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 102 (4)
CUMMINS DIESEL ENGINE
(120 CONTACT HOURS)

A Cummins Diesel Engine is completely overhauled. Included are the removal, disassembly, servicing, and assembly of each major component. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 103 (4)
DETROIT DIESEL ENGINE
(120 CONTACT HOURS)

This course focuses on the complete overhaul of a Detroit Diesel Engine. Included are the removal, disassembly, servicing, and assembly of each major component. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 121 (3)
STANDARD TRANSMISSIONS
(90 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Physics 131 or the consent of the instructor. Standard transmissions are examined. Included are the removal, disassembly, inspection, assembly, and installation of 5-speed and 10-speed standard transmissions. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 122 (2)
HEAVY DUTY CLUTCHES AND
TORQUE CONVERTORS (60 CONTACT HOURS)

This course covers clutches and torque convertors. The removal, repair, and installation of heavy duty clutches are included. The theory of operation, removal, repair, and installation of torque convertors are also covered. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 123 (2)
AIR BRAKE SYSTEMS (60 CONTACT HOURS)

This course focuses on air brake systems used in heavy trucks. The inspection, repair, and adjustment of these systems are covered. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 124 (2)
DIFFERENTIALS AND DRIVE
LINES (60 CONTACT HOURS)

Differentials are examined. Included are removal, disassembly, repair, reassembly, and installation. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 125 (2)
AUTOMATIC TRANSMISSIONS
(60 CONTACT HOURS)

Automatic transmissions are studied. Included are removal, inspection, repair, and assembly. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 126 (2)
HEAVY TRUCK AIR
CONDITIONING (60 CONTACT HOURS)

This course is a study of the theory, principles, operating procedures, troubleshooting and component repair of the automotive air conditioning system found in the heavy trucking industry. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 127 (2)
SHOP PRACTICES (60 CONTACT HOURS)

Shop practices is designed to acquaint the student with hand and power tools used in the repair of diesel engines and diesel powered equipment. The use of hand and power tools, precision measuring tools, pullers and cleaning equipment are taught. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 137 (3)
FUNDAMENTALS OF OXYGEN/
ACETYLENE AND ARC
WELDING (90 CONTACT HOURS)

Two methods of welding are included in this course, oxyacetylene and arc. Topics include the source of heat, application of each method, supplies necessary for a high weld, safety practices, and metals and their properties. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 141 (2)
CATERPILLAR DIESEL ENGINE TUNE-UP
AND FUEL SYSTEMS (60 CONTACT HOURS)

This course focuses on diagnosing, locating, and correcting troubles in Caterpillar Diesel Engines. Included are the removal, inspection, testing, adjustment and installation of fuel system components, such as pumps, injectors, filters, lines, and governors. Laboratory fee. NLC ONLY



DIESEL MECHANICS (DME) 142 (2)
CUMMINS DIESEL ENGINE TUNE-UP
AND FUEL SYSTEM (60 CONTACT HOURS)

This course focuses on diagnosing, locating, and correcting troubles in Cummins Diesel Engines. Included are the removal, inspection, testing, calibrating,adjustment, and installation of fuel system components, such as pumps, injectors, filters, lines, and governors. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 143 (2)
DETROIT DIESEL ENGINE TUNE-UP AND FUEL SYSTEM (60 CONTACT HOURS)

This course focuses on diagnosing, locating, and currecting troubles in Detroit Diesel Engines. Included are the removal, inspection, testing, repair, adjustment, and installation of fuel system components, such as injectors, filters, lines and governors. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 144 (1)
DIESEL ENGINE AIR INDUCTION COOLING AND LUBRICATION SYSTEMS (30 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Communications 131 or the consent of the instructor. The theory of operation of the diesel engine is studied. Included are engine air induction, cooling, and lubrication systems. Emphasis is on troubleshooting and servicing. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 145 (1)
ELECTRICAL THEORY AND BASIC CIRCUITRY (30 CONTACT HOURS)

The fundamentals of electricity and magnetism are introduced. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 146 (1)
STARTING, CHARGING, LIGHTING, AND ACCESSORY CIRCUITRY (30 CONTACT HOURS)

Starting motors, alternators, regulators, switches, and wiring circuits are examined. Emphasis is on removal, maintenance, and repair. Laboratory fee. NLC ONLY

DIESEL MECHANICS (DME) 703, 713, 803, 813 (3)
(See Cooperative Work Experience)

DIESEL MECHANICS (DME) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

DISTRIBUTION TECHNOLOGY (DT) 130 (3)
INTRODUCTION TO DISTRIBUTION (3 LEC.)

This course studies the place of wholesale distribution among producers, institutional and industrial customers, and ultimate consumers. The role of the wholesale distributor in the channels of distribution is examined, and wholesaling functions are surveyed. This course is also appropriate for existing new employees in entry-level positions with a demonstrated capacity for advancement. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 131 (3)
PRINCIPLES AND PRACTICES OF WHOLESALE MARKETING I (3 LEC.)

This course introduces the student to wholesale marketing principles and procedures in the Dallas/Fort Worth Regional Distribution Center. The present and predicted regional wholesale marketing environment is covered. Determination of product, product lines, and brand policies are also covered. Relationships among cost, price, and profit levels, are evaluated, and primary considerations concerning storage and channels of distribution are included. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 132 (3)
PRINCIPLES AND PRACTICES OF WHOLESALE MARKETING II (3 LEC.)

This course continues Distribution Technology 131. It addresses the development and organization of the total sales effort. Customer service requirements, credit and collection policies, and analysis of the marketing system are included. Emphasis is on problem-solving and development of a comprehensive marketing plan. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 133 (3)
TRANSPORTATION MANAGEMENT (3 LEC.)

Students will study the role of the transportation function within the physical distribution system. Special emphasis will be placed upon modern planning and control techniques associated with the design and operation of efficient and cost effective transportation systems. Carrier services, pricing structures, documentation, liability, claims and regulation of transportation will also be included. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 230 (3)
MATERIALS HANDLING AND PHYSICAL DISTRIBUTION (3 LEC.)

The operation and management of handling and distributing materials in a warehouse are examined. Planning, organizing, staffing, equipment operating, and maintaining a warehouse are covered. Included are field trips to physical distribution facilities. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 231 (3)
PURCHASING, PRICING, AND INVENTORY MANAGEMENT (3 LEC.)

The planning and implementation of wholesale distribution strategies are introduced. Purchasing strategies, typical "buy plans" integrating sales forecasts, lead time and storage, and distribution capabilities are investigated. Alternative price and discounting tactics, inventory management systems (cardex, computer, etc.), inventory levels, and cost controls are evaluated. NLC ONLY

DISTRIBUTION TECHNOLOGY (DT) 803, 813 (3)
(See Cooperative Work Experience)

DRAFTING (DFT) 135 (2)
REPRODUCTION PROCESSES (1 LEC., 3 LAB.)

Equipment and processes used to reproduce technical art are studied. Included are the graphic arts process camera, lithographic offset printing, diazo reproduction, blueprinting, photodrafting, microfilming, photocopying, silk screen printing, printed circuit board etching, thermography, typographics, xerography, engravings, and others. The rapidly expanding field of computergraphics is also covered. Lab work includes the preparation of flats for offset printing of brochures. Laboratory fee. EFC, ECC, MVC ONLY

DRAFTING (DFT) 136 (3)
GEOLOGICAL AND LAND DRAFTING (2 LEC., 4 LAB.)

Prerequisite: Drafting 183 or the equivalent and Mathematics 196. Equivalent is based on high school drafting courses or on student's work experience. Sample of drawings and/or high school transcript must be presented. This is a specialty course to prepare one to work in civil drafting. Various drawings are completed, such as relief maps, plan and profile drawings, roadways, pipelines, and petroleum and geophysical maps. Calculations are made from surveyor's notes to plot a traverse and contour lines and to determine area and volumes. A set of drawings is prepared for residential subdivision, a shopping center, or some other type of land development. EFC, ECC, MVC ONLY

DRAFTING (DFT) 160 (2)
MANUFACTURING FUNDAMENTALS (2 LEC.)

Manufacturing fundamentals and production methods are studied. Modern fabrication techniques and equipment used in industry are presented. The functions and role of drafting are described. ECC ONLY

DRAFTING (DFT) 182 (2)
TECHNICIAN DRAFTING (1 LEC., 3 LAB.)

This course focuses on the reading and interpretation of engineering drawings. Topics include multiview drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams, and printed circuit boards. Laboratory fee. NOT AT BHC, CVC

DRAFTING (DFT) 183 (4)
BASIC DRAFTING (2 LEC., 6 LAB.)

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

DRAFTING (DFT) 184 (3)
INTERMEDIATE DRAFTING (2 LEC., 4 LAB.)

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

DRAFTING (DFT) 185 (4)
ARCHITECTURAL DRAFTING (2 LEC., 6 LAB.)

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. EFC, MVC, NLC, ONLY

DRAFTING (DFT) 230 (3)
STRUCTURAL DRAFTING (2 LEC., 4 LAB.)

Prerequisites: Drafting 184 and Mathematics 196. Stresses and thermal and elastic qualities of various materials are studied. Beams, columns, and other materials are included. Structural plans, details, and shop drawings of components are developed for buildings using steel, reinforced concrete, and timber structures. Emphasis is on drafting appropriate drawings for fabrication and erection of structural components.
EFC, ECC, MVC ONLY

DRAFTING (DFT) 231 (3)
ELECTRONIC DRAFTING (2 LEC., 4 LAB.)

Prerequisite: Drafting 183. This course focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed circuit boards, integrated circuits, component packaging, chassis design and current practices. EFC, ECC, MVC ONLY

DRAFTING (DFT) 232 (3)
TECHNICAL ILLUSTRATION (2 LEC., 4 LAB.)

Prerequisite: Drafting 183. The rendering of three-dimensional drawings is covered. Orthographic views and engineer's sketches are developed into isometric, dimetric, perspective, and diagramatic drawings of equipment and their environments. Technical sketching, and hand mechanical lettering, air brush retouching of photographs, handling of commercially prepared pressure sensitive materials, and layout of schematics, charts, and graphs are practiced. Laboratory fee. EFC, ECC, MVC ONLY

DRAFTING (DFT) 233 (4)
MACHINE DESIGN (2 LEC., 6 LAB.) (128 CONTACT HOURS)

Prerequisites: Drafting 184, Physics 131, and credit or concurrent enrollment in Engineering 186 and Mathematics 196. The principles of physics, statics, strength of materials, and physical properties of materials are applied to the design of machine elements. Topics include function, environment, production, problems, and cost. Emphasis is on the practical application of design principles in graphic form. MVC ONLY

DRAFTING (DFT) 234 (4)
ADVANCED TECHNICAL ILLUSTRATION (2 LEC., 6 LAB.)

Prerequisite: Drafting 232. An area of specialization is chosen and pursued in depth. Examples are pictorials for color separation printing, air brush renderings, letterforms for logos and hand lettering, complex exploded views in isometric, perspective renderings, design of commercial displays and art for slide presentations. Laboratory fee. EFC, ECC, MVC ONLY

DRAFTING (DFT) 235 (3)
BUILDING EQUIPMENT (MECHANICAL AND ELECTRICAL) (2 LEC., 4 LAB.)

Prerequisite: Drafting 183 or Drafting 185. Plans and details for mechanical equipment are drawn. Equipment includes air conditioning, plumbing, and electrical systems. Emphasis is on the use of appropriate symbols and conventions. Mechanical and electrical features are coordinated with structural and architectural components. Laboratory fee. EFC, MVC ONLY

DRAFTING (DFT) 236 (3)
PIPING AND PRESSURE VESSEL DESIGN (2 LEC., 4 LAB.)

Prerequisites: Drafting 183 and Mathematics 195 or the equivalent. This course presents the methods of piping of fluids for refineries, petrochemical plants, and industrial facilities. ASME codes are applied to the design of pressure vessels, pipe fitting, welded and seamless piping, pumps, and heat exchanges. Drawing techniques are emphasized in orthographic and isometric projections. Laboratory fee. EFC, MVC ONLY

DRAFTING (DFT) 240 (3)
PRINTED CIRCUIT DESIGN (2 LEC., 4 LAB.)

Prerequisite: Drafting and Design Technology 231, concurrent enrollment in Drafting and Design Technology 231 or equivalent. This course develops skills in the design of double sided and multilayer printed circuit boards. Students design boards from schematics, parts lists, and manufacturing specifications. Some boards are designed for manual parts insertion and taped artworks. Others are designed for automatic parts insertion and digitized inputs for artworks. Laboratory fee. EFC ONLY

DRAFTING (DFT) 241 (3)
INTEGRATED CIRCUIT DESIGN (2 LEC., 4 LAB.)

Prerequisites: Drafting and Design Technology 240, Electronics Technology 190; or equivalent. Must be taken concurrently with Electronics Technology 250. This course develops skills in the design of integrated circuits. Electronic theory and laboratory exercises in active devices are combined with drafting lectures and laboratory drafting to enable students to design simple integrated circuits from schematic diagram and given design rules. Laboratory fee. EFC ONLY

DRAFTING (DFT) 242 (3)
ADVANCED INTEGRATED CIRCUIT DESIGN (2 LEC., 4 LAB.)

Prerequisite: Drafting and Design Technology 241. This course develops skills in the design of complex integrated circuits. Students work from schematic diagrams and two sets of given rules. Work is done to meet industrial standards of current technologies. Laboratory fee. EFC ONLY

DRAFTING (DFT) 243 (3)
ADVANCED PRINTED CIRCUIT DESIGN (2 LEC., 4 LAB.)

Prerequisite: Drafting 240. This course includes the design of double-sided or multilayer boards containing several types of electronic components, requiring selection of integrated circuit chips and combination of gates. Industry standards are followed in design development. Laboratory fee. EFC ONLY

DRAFTING (DFT) 250 (3)
SHEET METAL DESIGN (2 LEC., 4 LAB.)

Prerequisite: Drafting 183. This course includes the preparation of drawings for sheet metal developments. Topics include bend allowance, relief, standard bends for specific applications, cost factors to consider in manufacturing, metal specifications, finishing, coating, fasteners, and weldments. Laboratory fee. EFC ONLY

DRAFTING (DFT) 251 (3)
INDUSTRIAL DESIGN (2 LEC., 4 LAB.)

Prerequisite: Drafting 250. This course includes the design of metal and plastic packages for electronic, optical, and mechanical components. Topics include standard boxes, panels, mounts, brackets, fasteners, grommets, and other standard parts used in the design of packages. Standard catalogs and manuals are used to design packages for specific situations. Laboratory fee. EFC ONLY

COOPERATIVE WORK EXPERIENCE
701, 711, 801, 811 (1)
702, 712, 802, 812 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)

Prerequisite: Completion of two courses in the student's major or instructor or coordinator approval. These courses consist of seminars and on-the-job experience. Theory and instruction received in the courses of the students' major curricula are applied to the job. Students are placed in work-study positions in their technical occupational fields. Their skills and abilities to function successfully in their respective occupations are tested. These work internship courses are guided by learning objectives composed at the begining of each semester by the students, their instructors or coordinators, and their supervisors at work. The instructors determine if the learning objectives are valid and give approval for credit.

EARTH SCIENCE (ES) 117 (4)
EARTH SCIENCE (3 LEC., 3 LAB.)

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. Laboratory fee. (This course is offered on campus and may be offered via television.)
NOT AT CVC, MVC, NLC

ECOLOGY (ECY) 291 (3)
PEOPLE AND THEIR ENVIRONMENT II (3 LEC.)

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. (This course may be offered via television.)
BHC, MVC, RLC ONLY

ECONOMICS (ECO) 201 (3)
PRINCIPLES OF ECONOMICS I (3 LEC.)

Sophomore standing is recommended. The principles of macroeconomics are presented. Topics include economic organization, national income determination, money and banking, monetary and fiscal policy, economic fluctuations, and growth. (This course is offered on campus and may be offered via television.)

ECONOMICS (ECO) 202 (3)
PRINCIPLES OF ECONOMICS II (3 LEC.)

Prerequisite: Economics 201 or the consent of the instructor. The principles of microeconomics are presented. Topics include the theory of demand, supply, and price of factors. Income distribution and theory of the firm are also included. Emphasis is on international economics and contemporary economic problems.



EDUCATIONAL PARAPROFESSIONAL (EP) 129 (3)
COMMUNICATION SKILLS FOR EDUCATIONAL PARAPROFESSIONAL (3 LEC.)

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. ECC, MVC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 131 (3)
INTRODUCTION TO EDUCATIONAL PROCESSES I (3 LEC.)

The role of the educational paraprofessional is defined. The organization and administration of the public school system are described. Special attention is given to the development of effective interpersonal relationships. Through direct experiences with students on a one-to-one basis, the paraprofessional trainee observes and studies the developmental patterns of students. The principles of human growth and development are included.
ECC, MVC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 133 (3)
INTRODUCTION TO EDUCATIONAL PROCESSES II (3 LEC.)

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 the educational paraprofessional are covered.
ECC, MVC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 134 (3)
INTRODUCTION TO MEDIA (2 LEC., 2 LAB.)

Basic skills for preparing graphic and projected educational materials are developed. The operation of selected audiovisual equipment is also included.
ECC, MVC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 135 (3)
ARTS AND CRAFTS FOR EDUCATIONAL PARAPROFESSIONALS (3 LEC.)

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.
ECC, MVC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 231 (2)
PARAPROFESSIONAL SEMINAR I (2 LEC.)

Classroom strategies, supervision techniques, and instructional skills are discussed. Educational paraprofessional trainees use their practicum experiences in the discussion in this seminar. RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 232 (4)
EDUCATIONAL PARAPROFESSIONAL PRACTICUM I (20 LAB.)

(See Cooperative Work Experience 804) This practicum includes experiences in learning environments under the direct supervision of a teacher. Principles of learning and motivation are applied to the teaching learning situation. RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 235 (2)
EDUCATIONAL PARAPROFESSIONAL SEMINAR II (2 LEC.)

Experiences in the classroom are combined with professional consultation and group experiences with other educational paraprofessionals. Small group interaction enables the trainee to share experiences, demonstrate specific skills, participate in simulated classroom situations, and clarify hypotheses. RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 236 (4)
EDUCATIONAL PARAPROFESSIONAL PRACTICUM II (20 LAB.)

(See Cooperative Work Experience 814) This practicum continues experiences in classrooms under the supervision of a teacher. Principles of learning and motivation are applied to the teaching-learning situation.
RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 245 (1)
DIVERSIFIED STUDIES (1 LEC.)

This course provides for specialized study by the educational paraprofessional. 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.
ECC, RLC, ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 246 (2)
DIVERSIFIED STUDIES (2 LEC.)

This course provides for specialized study by the educational paraprofessional. 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.
ECC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP) 247 (3)
DIVERSIFIED STUDIES (3 LEC.)

This course provides for specialized study by the educational paraprofessional. 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.
ECC, EFC, RLC ONLY

EDUCATIONAL PARAPROFESSIONAL (EP)
(See Cooperative Work Experience)
701, 711, 801, 811 (1)
702, 712, 802, 822 (2)
703, 713, 803, 813 (3)
704, 714, 804, 814 (4)

ELECTRIC POWER TECHNOLOGY (ELP) 241
ADVANCED ELECTRICAL MACHINERY AND TRANSFORMERS (2 LEC., 3 LAB.)

Ths course is a continuation of Electro-Mechanical Technology 233. Emphasis in on three phase power, poly phase machines, and transformers. Included are the characteristics and applications of alternators, synchronous motors, and poly phase induction motors. The fundamentals, construction, markings and polarity, phase and poly phase transformers are also studied. Laboratory Fee. RLC ONLY

ELECTRIC POWER TECHNOLOGY (ELP) 244 (4)
ADVANCED ELECTRIC POWER SYSTEMS (3 LEC., 3 LAB.)

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.
RLC ONLY

ELECTRICITY (ELE) 100 (1)
ELECTRICAL ORIENTATION (30 CONTACT HOURS)

This course introduces the electrical industry and technical program in electricity. Included are the tools and materials used in the trade. NLC ONLY

ELECTRICITY (ELE) 101 (1)
DC CIRCUITS AND MEASUREMENTS (30 CONTACT HOURS)

Voltage, current, and resistance are calculated and measured in series, parallel, and combination circuits. The operation and use of test instruments are covered. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 111 (1)
RESIDENTIAL CODES (30 CONTACT HOURS)

Codes for residential wiring are presented. Both the National Electric Code and local ordinances are included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 112 (4)
GENERAL WIRING PRACTICES (120 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Blueprint Reading 177. This course focuses on wiring practices for residences. Topics include selection, splicing, switches, receptacles, and lighting circuits. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 113 (3)
APPLIANCE CIRCUITS (90 CONTACT HOURS)

This course focuses on wiring practices for appliance circuits, electric heating, central air conditioning, grounding practices, and service entrances. Laboratory fee.
NLC ONLY

ELECTRICITY (ELE) 114 (3)
LOW VOLTAGE CIRCUITS (30 CONTACT HOURS)

This course focuses on low voltage circuits for residences. Bells, chimes, and alarms included. Laboratory fee.
NLC ONLY

ELECTRICITY (ELE) 121 (1)
COMMERCIAL CODES (30 CONTACT HOURS)

Codes for commerical wiring are presented. Both the National Electric Code and local ordinances are included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 122 (4)
COMMERCIAL WIRING (120 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Blueprint Reading 177. Commercial wiring practices are studied. Included are materials, conduit work, wire pulling, and circuit layouts. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 123 (3)
POWER CIRCUITS (90 CONTACT HOURS)

The study of commercial wiring entrance, breaker panels, commercial appliances, and problems encountered in electrical construction work. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 202 (2)
BASIC AC CIRCUITS (60 CONTACT HOURS)

Prerequisite: Credit or concurrent enrollment in Mathematics 195. AC circuits are studied. Calculations and measurements are made for reactance, impedance, phase angle, voltage, current, and power. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 203 (1)
THREE-PHASE CIRCUITS (30 CONTACT HOURS)

Three-phase wye and delta circuits are covered. Calculations and measurements are made. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 231 (1)
MOTOR CODES (30 CONTACT HOURS)

Motor codes are studied. Both the National Electric Code and local ordinances are included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 232 (1)
DC AND SINGLE-PHASE MACHINES (30 CONTACT HOURS)

This course focuses on DC motors, generators, and single-phase motors. Included are the characteristics, connection, and testing of these machines. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 233 (1)
THREE-PHASE MOTORS (30 CONTACT HOURS)

This course focuses on three-phase motors. Included are the characteristics, connection, and testing of these motors. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 241 (1)
CONTROL CIRCUIT DIAGRAMS (30 CONTACT HOURS)

Control circuit diagrams are presented. Topics include in terminology, symbols, and development of these diagrams. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 242 (1)
MAGNETIC STARTING AND OVERLOAD PROTECTION (30 CONTACT HOURS)

This course covers start-stop stations with overload protection. Both individual and multiple types are included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 243 (1)
JOGGING, REVERSING, AND SEQUENCING (30 CONTACT HOURS)

Connecting, testing, jogging, and reversing motor controls are studied. Sequencing circuits is also included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 244 (1)
SOLID STATE CONTROLS (30 CONTACT HOURS)

Transistor relay and SCR motor controllers are studied. Both connecting and testing are included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 251 (1)
TRANSFORMER TYPES AND TESTING (30 CONTACT HOURS)

This course focuses on transformers. Fundamentals, types, and testing procedures are all included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 252 (2)
DISTRIBUTION TRANSFORMERS (60 CONTACT HOURS)

This course focuses on single-phase and three-phase distribution transformer. Selection, connection, and testing are all included. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 261 (2)
RESIDENTIAL PLANNING
(60 CONTACT HOURS)

Planning the wiring job for residences is studied. Topics include the placing of receptacles, switches, lights and appliance. Service entrance, material estimating, and pricing are also covered. Laboratory fee. NLC ONLY

ELECTRICITY (ELE) 262 (2)
COMMERCIAL PLANNING
(60 CONTACT HOURS)

Planning the wiring job for a church, school, or other commercial building is studied. Blueprints and specification books are used to make plans. Laboratory fee. NLC ONLY

ELECTRICITY
(ELE) 703, 713, 803, 813 (3)
(See Cooperative Work Experience)

ELECTRICITY
(ELE) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

ELECTRONICS TECHNOLOGY
(ET) 135 (6)
DC - AC THEORY AND CIRCUIT ANALYSIS (5 LEC., 3 LAB.) (128 CONTACT HOURS)

Prerequisites: Credit or concurrent enrollment in Mathematics 195 or the equivalent. The DC theory and AC theory are both studied in this course. 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 combination circuits are covered. Laboratory fee. MVC ONLY

ELECTRONICS TECHNOLOGY
(ET) 190 (4)
DC CIRCUITS AND ELECTRICAL MEASUREMENTS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

Prerequisite: Mathematics 195 or the equivalent recommended. 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.

EFC, MVC, RLC ONLY

ELECTRONICS TECHNOLOGY
(ET) 191 (4)
A.C. CIRCUITS (3 LEC., 3 LAB.)

Prerequisite: Electronics Technology 190 and credit or concurrent enrollment in Mathematics 195 or the equivalent. This course covers the fundamental theories of alternating current. The theories are applied in various circuits. Included are laboratory experiments on power factor, sine wave analysis, resonant circuits, capacitance, inductance, Q of coils, magnetism, and resistance. Laboratory fee. EFC, MVC, RLC ONLY

ELECTRONICS TECHNOLOGY
(ET) 192 (3)
DIGITAL COMPUTER PRINCIPLES (2 LEC., 2 LAB.)

Prerequisite: Electronics Techology 190. This course is a study of number systems and arithmetic in various bases. Included are truth tables, relay and diode logic analysis, logic symbols, and basic functions including NOT, AND, NAND, OR NOR, and EX-OR. Logic manipulations include basic laws, minterm, maxterm, sum of products, and product of sums expression forms. Venn diagrams, Veitch and Karnaugh reduction techniques, and circuit synthesis are also covered using design examples. Laboratory fee. EFC ONLY

ELECTRONICS TECHNOLOGY
(ET) 193 (4)
ACTIVE DEVICES (3 LEC., 3 LAB., 96 CONTACT HOURS)

Prerequisites: Electronics Technology 190 and credit or concurrent enrollment in Electronics Technology 191. Semiconductors (active devices) are the focus of this course. Topics include composition, parameters, linear and non-linear characteristics, in circuit action, amplifiers, rectifiers, and switching. Laboratory fee.
EFC, MVC, RLC ONLY

ELECTRONICS TECHNOLOGY (ET) 194 (3)
INSTRUMENTATION (2 LEC., 3 LAB.) (80 CONTACT HOURS)

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.
EFC, MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 231 (4)
SPECIAL CIRCUITS WITH COMMUNICATIONS APPLICATIONS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

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. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 232 (4)
ANALYSIS OF ELECTRONICS LOGIC AND SWITCHING CIRCUITS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

Prerequisites: Electronics Technology 193 and 194. The course presents circuitry common to electronic control systems and automatic measuring systems. Typical circuit functions covered include clamping, gating, switching, and counting. Circuits include voltage discriminators, multivibrators, dividers, counters, and gating circuits. Boolean algebra and binary numbers are reviewed. Emphasis is on semiconductor devices. Fluidic switching devices are introduced. Laboratory fee. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 234 (3)
ELECTRONIC CIRCUITS AND SYSTEMS (6 LAB.) (96 CONTACT HOURS)

Prerequisites: Completion of all Electronics Technology Courses up to and including Electronics Technology 231; and may take Electronics Technology 232 and Electronics Technology 231 concurrently with Electronics Technology 234. The design, layout construction, and calibration of an electronics project are covered. Students develop independent project and prepare term papers on functions of components, operating specifications, and schematics. Laboratory fee. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 235 (4)
FUNDAMENTALS OF ELECTRICITY (3 LEC., 3 LAB.) (96 CONTACT HOURS)

This course is an introduction to electricity for students in related programs. Topics include basic AC and DC theory, voltage, current, and resistance, and electrical wiring principles and schematics. Transformers, relays, timers, electrical measuring devices, and basic electrical calculations are also included. Laboratory fee.
EFC, MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 237 (4)
MODULAR MEMORIES AND MICROPROCESSORS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

Prerequisites: Electronics Technology 232. Read only memories (ROM's), random acess memories (RAM's), and microprocessors are presented. Emphasis is on specifications, applications, and operation. Control buses data basis, addressing, coding, and programming of typical microprocessor units are included. Microprocessor system is constructed, tested, coded, and programmed. Laboratory fee. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 238 (4)
LINEAR INTEGRATED CIRCUITS (3 LEC., 3 LAB.) (96 CONTACT HOURS)

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. EFC, MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 239 (3)
INDUSTRIAL AND MICROWAVE ELECTRONICS TECHNOLOGY (3 LEC.)

Prerequisites: Electronics Technology 194 and 231. The microwave portion of this course involves a study of U.H.F. and V.H.F. components, circuits, and measurement techniques including the use of distributed constant-element waveguides, microwave links, and an introduction to radar and similar systems. The industrial electronics portion of this course involves a study of time constant and electronic timing circuits, photoelectric controls, synchros and servomechanisms, induction and dielectric heating, radiation detention, applications in the field of industrial control and automation, combining of electrical, electronic, magnetic, and mechanical principles. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 240 (4)
ELECTRONICS THEORY AND APPLICATION OF DIGITAL COMPUTERS (3 LEC., 3 LAB.)

Prerequisite: Mathematics 196 and Electronics Technology 193. This course is designed primarily to provide related theory and applications of electronic switching circuits to digital computer systems. Logic symbology, gates, and related boolean algebra to predict the output of such circuits are presented. An overview of general computer terminology and number systems is provided. APL programming with respect to basic electronic circuit analysis is also included. Laboratory fee. MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 250 (4)
PRINCIPLES OF ELECTRONIC INTEGRATED CIRCUITS (3 LEC., 2 LAB.)

Prerequisites: Electronics Technology 190 and concurrent enrollment in Drafting and Design Technology 241. This is a survey course of solid state devices and their associated circuitry. This course is intended to teach the student fundamentals of common electronic circuits which contain integrated circuits and to teach elements of solid state devices from the principle of the PN junction through the function of integrated circuits. Laboratory fee. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 260 (4)
SINUSOIDAL CIRCUITS (3 LEC., 3 LAB.)

Prerequisites: Electronics Technology 191 and 193. Power supply circuits are presented. Included are full wave rectification, filtering, and regulation. Amplifier circuits involving large and small signal analysis, coupling, classes of operation and feedback techniques are also covered. Semiconductor devices considered include the Zener diode, SCR, TRIAC, MOSFET, JFET, CMOS, and unijunction. Laboratory fee. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 261 (4)
PULSE AND SWITCHING CIRCUITS (3 LEC., 3 LAB.)

Prerequisites: Electronics Technology 191 and 193. Thevenin's theorem and superposition are applied to AC and DC sources. Waveform analysis is studied including pulse characteristics and pulsetrain measurements of harmonic content. Other topics include RC and RL circuit response to step inputs, exponential forms, diode clipper and 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. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 263 (4)
DIGITAL COMPUTER THEORY (3 LEC., 3 LAB.)

Prerequisite: Electronics Technology 192. 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. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 264 (4)
DIGITAL SYSTEMS (3 LEC., 3 LAB.)

Prerequisite: Electronics Technology 192. The three major component systems of a digital computer are studied. The arithmetic-logic section 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, distributor, and ROM type of control circuits. Laboratory fee. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 265 (3)
DIGITAL RESEARCH (1 LEC., 5 LAB.)

Prerequisites: Electronics Technology 192 and concurrent enrollment in Electronics Technology 263 and 264. The design, layout, construction, and calibrating of a major electronic project are covered. The project uses digital circuits. Students develop independent projects and prepare term papers on functions of components, operating specifications, and schematics. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 266 (4)
COMPUTER APPLICATIONS (3 LEC., 3 LAB.)

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. Hardware trouble-shooting techniques for both computer mainframe and input and output devices are covered. Laboratory fee. EFC ONLY

ELECTRONICS TECHNOLOGY (ET) 267 (4)
MICROPROCESSORS (3 LEC., 3 LAB.)

Prerequisite: Electronics Technology 192. This course is a study of microcomputers. Topics include architecture, software, interfacing, microprocessors, and microcomputer systems. Emphasis is on practical applications using in-house micro-computers. Laboratory fee. EFC, MVC ONLY

ELECTRONICS TECHNOLOGY (ET) 268 (4)
ADVANCED MICROPROCESSORS (3 LEC., 3 LAB.)

Prerequisite: Electronic Technology 267. The study of microprocessors is continued. Emphasis is on hardware troubleshooting, diagnostic programming, and peripheral interface and control concepts. Laboratory fee.
EFC, MVC ONLY

ELECTRONICS TECHNOLOGY
(See Cooperative Work Experience)
802 (2)
713, 803 (3)
804 (4)

ELECTRO-MECHANICAL TECHNOLOGY (EMT) 229 (4)
ANALOG AND DIGITAL CIRCUITS (3 LEC., 3 LAB.)

Prerequisite: Electronics Technology 193 or the equivalent. This course covers advanced electronic devices and circuits. Emphasis is on integrated circuits. Both analog and digital circuit fundamentals are studied. The use of these circuits in controls, sensing, and testing is stressed. Solid state circuits used in modern industrial systems are included. Laboratory fee.

ELECTRO-MECHANICAL TECHNOLOGY (EMT) 232 (4)
MECHANISMS AND DRIVES (3 LEC., 3 LAB.)

Prerequisite: Mathematics 195 or the equivalent. The mechanism and drive elements of electro-mechanical systems are presented. Individual linkage and drive mechanisms are studied in terms of their function and operating characteristics in integrated electro-mechanical systems. The construction, testing, and analysis of linkage and drive elements are included. Laboratory work is supported by lecture material on the related concepts in mechanics.

ELECTRO-MECHANICAL TECHNOLOGY (EMT) 233 (3)
ELECTRICAL MACHINERY (2 LEC., 3 LAB.)

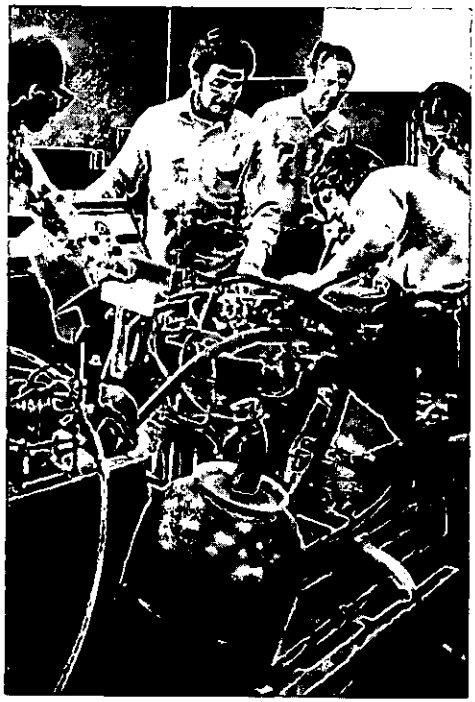
Prerequisite: Electronics Technology 191 or concurrent enrollment in Electronics Technology 191. The theory and function of power electricity, including AC and DC machines. Electrical and mechanical aspects are stressed. The laboratory provides hands-on experience in operation of machinery, quantitative analysis of performance characteristics, electrical measurements on power circuits and demonstration of principles discussed in class. Safety practices are stressed. Laboratory fee.
RLC ONLY

ELECTRO-MECHANICAL TECHNOLOGY (EMT) 237 (3)
ELECTRO-MECHANICAL SYSTEMS (2 LEC., 3 LAB.)

Prerequisite: Electronics Technology 191. This course emphasizes electro-mechanical and solid state industrial machine control systems. Control components, control and power circuit diagrams, manual and automatic AC and DC machine starters, manual and automatic AC and DC machine speed control, and solid state logic elements are studied. Problem identification, problem solving, and reporting techniques are emphasized. Laboratory fee. RLC ONLY

ELECTRO-MECHANICAL TECHNOLOGY (EMT) 239 (4)
PRINCIPLES OF DIGITAL CONTROL (3 LEC., 3 LAB.)

Prerequisite: Electro-Mechanical Technology 229. The control of automated industrial systems with digital elements as subsystems is studied. Included are the functions of the various control elements and their interface with other components. The conversion of control information between analog and binary forms is examined. The use and implementation of logical decision elements are covered. Emphasis is on the operation and function of microprocessors in modern control systems. Laboratory fee.
RLC ONLY



ENGINE MECHANICS (EM) 100 (3)
SHOP PRACTICES (90 CONTACT HOURS)

This course covers shop practices. Topics include tools, equipment and service department operation. (This is a comprehensive course that incorporates Engine Mechanics 101 and 102. The student may enroll in the comprehensive course or either of the inclusive courses.) Laboratory fee. CVC ONLY

ENGINE MECHANICS (EM) 101 (2)
TOOLS AND EQUIPMENT
(60 CONTACT HOURS)

This course focuses on the safe and proper use of tools and equipment used in the repair of small engines. Laboratory fee. CVC ONLY

ENGINE MECHANICS (EM) 102 (1)
SERVICE DEPARTMENT
OPERATION (30 CONTACT HOURS)

This course focuses on the operation of a service department. Laboratory fee. CVC ONLY

ENGINE MECHANICS (EM) 110 (6)
ENGINE FUNDAMENTALS
(180 CONTACT HOURS)

Prerequisite: Engine Mechanics 100. This is a comprehensive course that incorporates Engine Mechanics 111, 112, and 113. Students may enroll in the comprehensive course or any of the inclusive courses. The fundamentals of engines are introduced. Included are two and four cycle engines, basic electrical systems, and basic fuel systems. Laboratory fee.

ENGINE MECHANICS (EM) 111 (2)
TWO AND FOUR CYCLE
ENGINES (60 CONTACT HOURS)

This course is the study of two and four cycle engines. Topics include principles, theory of operation, and failure analysis. Laboratory fee. CVC ONLY

ENGINE MECHANICS (EM) 112 (2)
BASIC ELECTRICAL SYSTEMS
(60 CONTACT HOURS)

This course is the study of basic electrical systems. Topics include the principles of electricity as they relate to small engines. Laboratory fee. CVC ONLY

ENGINE MECHANICS (EM) 113 (2)
BASIC FUEL SYSTEMS (60 CONTACT HOURS)

This course is the study of basic fuel systems. Topics include the principles and theory of operation. Laboratory fee. CVC ONLY

ENGINE MECHANICS
(EM) 703, 713, 803, 813 (3)
(See Cooperative Work Experience)

ENGINE MECHANICS
(EM) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

ENGINEERING (EGR) 101 (2)
ENGINEERING ANALYSIS (2 LEC.)

Prerequisite: Two years of high school algebra or Developmental Mathematics 093 or the consent of the instructor. This course surveys the field of engineering. Topics include the role of the engineer in society and branches and specialties in engineering. Engineering analysis and computer programming are introduced. Practice is provided in analyzing and solving engineering problems. Computational methods and devices with an introduction to computer programming are also covered. EFC, NLC, RLC ONLY

ENGINEERING (EGR) 105 (3)
ENGINEERING DESIGN GRAPHICS (2 LEC., 4 LAB.)

Graphic fundamentals are presented for engineering communications and engineering design. Topics include standard engineering graphical techniques, auxiliaries, sections, graphical analysis, and pictorial and working drawings. Laboratory fee.
NOT AT CVC, MVC

ENGINEERING (EGR) 106 (3)
DESCRIPTIVE GEOMETRY (2 LEC., 4 LAB.)

Prerequisite: Drafting 183 or Engineering 105. This course provides training in the visualization of three-dimensional structures. Emphasis is on accurately representing these structures in drawings by analyzing the true relationship between points, lines, and planes. Included are the generation and classification of lines, surfaces, intersections, developments, auxiliaries, and revolutions. Laboratory fee.
NOT AT CVC

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

Prerequisite: Credit or concurrent enrollment in Mathematics 126. 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 work, and potential energy. Distributed forces, centers of gravity, and analysis of structures, beams, and cables are also presented.
EFC, NLC, RLC ONLY

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

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

ENGINEERING (EGR) 186 (2)
MANUFACTURING PROCESSES (1 LEC., 2 LAB.) (48 CONTACT HOURS)

This course introduces the student enrolled in technical programs to the many steps involved in manufacturing a product. This is accomplished by involving the class in producing a device with precision. The student gains practical experience with working drawings, a variety of machine tools and the assembly of components. The student is made aware of the factors involved in selecting materials and economical utilization of materials. Laboratory fee.
EFC, MVC, RLC ONLY

ENGINEERING (EGR) 187 (2)
MANUFACTURING PROCESSES (1 LEC., 2 LAB.)

Prerequisite: Engineering 186 or acceptable industrial experience. This course is a continuing study of metal working processes, chipless machining, threads, gears, jigs, fixtures, surface treatments, automation, and operations planning. Laboratory fee. EFC, RLC ONLY.

ENGINEERING (EGR) 188 (3)
STATICS (3 LEC.) (48 CONTACT HOURS)

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

ENGINEERING (EGR) 189 (3)
CHARACTERISTICS AND STRENGTHS OF MATERIALS (3 LEC.) (48 CONTACT HOURS)

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

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

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 227. 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. EFC, RLC ONLY

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

Prerequisites: Engineering 107 and credit or concurrent enrollment in Mathematics 227. Simple structural elements are studied. Emphasis is on forces, deformation, and material properties. The concepts of stress, strain, and elastic properties are presented. Analysis of thin walled vessels, members loaded in tension, torsion, bending and shear, combined loadings, and stability conditions are included. Behavioral phenomena such as fracture, fatigue, and creep are introduced. EFC, RLC ONLY

ENGINEERING (EGR) 203 (3)
ENGINEERING PRODUCTION (1 LEC., 5 LAB.)

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

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

Prerequisite: Credit of concurrent enrollment in Mathematics 227. 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. EFC, RLC ONLY

ENGINEERING (EGR) 205 (3)
PLANE SURVEYING (2 LEC., 4 LAB.)

Prerequisites: Mathematics 102 or 196 and Engineering 105 or Drafting 183. This course focuses on plane surveying. Topics include surveying instruments, basic measuring procedures, vertical and horizontal control, error analysis, and computations. Traverse, triangulation, route alignments, centerlines, profiles, mapping, route surveying, and land surveying are also included. Laboratory fee. EFC ONLY

ENGINEERING (EGR) 206 (1)
ELECTRICAL ENGINEERING LABORATORY (3 LAB.)

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. EFC, RLC ONLY

ENGINEERING (EGR) 289 (3)
MECHANICS OF STRUCTURES (3 LEC.)

Prerequisite: Mathematics 195. This is a basic course in engineering mechanics for technology students. Topics include forces and force systems, equilibrium, moments, centroids, stresses and strains. Methods analysis and design of bolted and welded joints, trusses, beams, and columns are introduced. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 124
INDUSTRIAL ORGANIZATIONS (2 LEC.)

This course presents an overall view of the manufacturing company. Topics include process planning, costs and budgets, contracts, marketing, economics, and personnel. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 141 (4)
BASIC HYDRAULICS AND FLUID MECHANICS (3 LEC., 3 LAB.)

Principles of hydraulics and fluid mechanics are examined. Hydraulic pumps, motors, cylinders, and values are studied. Emphasis is on the application of formulas related to the properties of fluids and the laws which govern fluid flow. Various hydraulic components are tested, and basic hydraulic circuits are set up and evaluated. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 142 (3)
INSTRUMENTATION AND TESTING (2 LEC., 3 LAB.)

Prerequisite: Credit or concurrent enrollment in Electronics Technology 191. Industrial instrumentation and testing are introduced. The characteristics of various instruments are investigated. The static and dynamic characteristics of measuring devices used in such areas as heat flow, liquid flow, electronic control, pressure and related areas in instrumentation, control, and materials handling are studied. Laboratory fee. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 143 (4)
INTERPRETATION OF TECHNICAL DATA (3 LEC., 2 LAB.)

Prerequisite: Mathematics 195 or the consent of the instructor. This course introduces the student to the interpretation of data obtained from product experiments, measurements, and tests. An understanding of empirical data in graphical, algebraic, and statistical form will be placed on applied examples from the fields of electronic, mechanical, fluid, and quality control technology. Significant use is made of the computer and electronic calculator as analytical aids. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 240 (3)
AUTOMATIC CONTROL SYSTEMS (2 LEC., 3 LAB.)

Electro-Mechanical and electro-hydraulic control systems are explored. The response and stability characteristics of feedback control systems, electro-mechanical and electro-hydraulic control systems are set up and evaluated. The analog computer is used to analyze these systems. Laboratory fee. RLC ONLY

ENGINEERING TECHNOLOGY (EGT) 803 (3)
(See Cooperative Work Experience)

ENGINEERING TECHNOLOGY (EGT) 804 (4)
(See Cooperative Work Experience)

ENGLISH

(Also see Developmental Reading and Developmental Writing.) Additional instruction in writing and reading is available through the Learning Skills Center.

ENGLISH IN THE SOPHOMORE YEAR

English 201, 202, 203, 204, 205, 206, 215 and 216 are independent units of three credit hours each, from which any combination of two will be selected to satisfy degree requirements in sophomore English. Student should consult catalog of the senior college he expects to attend for requirements in his major before choosing English courses.

ENGLISH (ENG) 101 (3)
COMPOSITION AND
EXPOSITORY READING (3 LEC.)

The development of skills is the focus of this course. Skills in writing and in the critical analysis of prose are included. (This course is offered on campus and may be offered via television.)

ENGLISH (ENG) 102 (3)
COMPOSITION AND
LITERATURE (3 LEC.)

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

ENGLISH (ENG) 201 (3)
BRITISH LITERATURE (3 LEC.)

Prerequisite: English 102. Significant works of British literature are studied. The Old English Period through the 18th century is covered.

ENGLISH (ENG) 202 (3)
BRITISH LITERATURE (3 LEC.)

Prerequisite: English 102. Significant works of British literature are studied. The Romantic Period to the present is covered.

ENGLISH (ENG) 203 (3)
WORLD LITERATURE (3 LEC.)

Prerequisite: English 102. Significant works of continental Europe are studied. The Greek Classical Period through the Renaissance is covered.

ENGLISH (ENG) 204 (3)
WORLD LITERATURE (3 LEC.)

Prerequisite: English 102. Significant works of continental Europe, England, and America are studied. The time period since the Renaissance is covered.

ENGLISH (ENG) 205 (3)
AMERICAN LITERATURE (3 LEC.)

Prerequisite: English 102. Significant works of American writers before Walt Whitman are studied. Emphasis is on the context of the writers' times.

ENGLISH (ENG) 206 (3)
AMERICAN LITERATURE (3 LEC.)

Prerequisite: English 102. Signigicant works of American writers from Walt Whitman to the present are studied.

ENGLISH (ENG) 209 (3)
CREATIVE WRITING (3 LEC.)

Prerequisite: English 102. The writing of fiction is the focus of this course. Included are the short story, poetry, and short drama.

ENGLISH (ENG) 210 (3)
TECHNICAL WRITING (3 LEC.)

Prerequisite: English 101 and 102 or Communications 131 and 132. The technical style of writing is introduced. Emphasis is on the writing of technical papers, reports, proposals, progress reports, and descriptions.

ENGLISH (ENG) 215 (3)
STUDIES IN LITERATURE (3 LEC.)

Prerequisite: English 102. Selections in literature are read, analyzed, and discussed. Selections are organized by genre, period, or geographical region. Course titles and descriptions are available each semester prior to registration. This course may be repeated for credit.

ENGLISH (ENG) 216 (3)
STUDIES IN LITERATURE (3 LEC.)

Prerequisite: English 102. Selections in literature are read, analyzed, and discussed. Selections are organized by theme, interdisciplinary content or major author. Course titles and descriptions are available each semester prior to registration. This course may be repeated for credit. NOT AT EFC

FIRE PROTECTION (FPT) 131 (3)
INTRODUCTION TO FIRE PROTECTION (3 LEC.)

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. ECC ONLY

FIRE PROTECTION (FPT) 132 (3)
FIRE PREVENTION THEORY & APPLICATION (3 LEC.)

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. ECC ONLY

FIRE PROTECTION (FPT) 135 (3)
INTRODUCTION TO FIRE ADMINISTRATION (3 LEC.)

This course focuses on the organization and management of a fire department. Topics include budgeting, maintenance of records and reports, and management of fire department officers. Personnel administration, distribution of equipment and personnel, and relations with various government agencies are also included. Fire service leadership is viewed from the company officer's position. ECC ONLY

FIRE PROTECTION (FPT) 136 (3)
FIRE INVESTIGATION AND ARSON (3 LEC.)

The detection and investigation of arson are studied. Topics include investigation techniques, case histories, gathering and preserving evidence, and preparing for a court case. Also included is a selected discussion of laws, decisions, and opinions. Kinds of arsonists, interrogation procedures, and cooperation between fire fighters and arson investigators are also covered. ECC ONLY

FIRE PROTECTION (FPT) 139 (4)
FIRE OPERATIONS STRATEGY (3 LEC., 1 LAB.)

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 pre-planning, 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. ECC ONLY

FIRE PROTECTION (FPT) 231 (3)
FIRE PROTECTION THROUGH BUILDING CONSTRUCTION (3 LEC.)

The fire resistance of building construction is considered. Included are building materials, assemblies and exposures. Both local and national laws and guidelines are reviewed. Model building codes and the life safety code are also studied.
ECC ONLY

FIRE PROTECTION (FPT) 232 (3)
PROTECTION SYSTEMS IN INDUSTRY (3 LEC.)

Safeguards for business and industrial organizations are presented. Topics include plant lay-out, fire prevention programs, extinguishing factors and techniques, hazards, and prevention methods. The organization and development of an industrial fire brigade are described. Gaining cooperation between the public and private fire department organization is also covered. ECC ONLY

FIRE PROTECTION (FPT) 233 (3)
FIRE PROTECTION SYSTEMS (3 LEC.)

This course examines fire protection systems. Topics include standards for water supply, special hazards protection systems, automatic sprinklers and special extinguishing systems, and automatic signaling and detection systems. Rating organizations and underwriting agencies are also described. ECC ONLY

FIRE PROTECTION (FPT) 234 (3)
INDUSTRIAL FIRE PROTECTION II (3 LEC.)

Prerequisite: Fire Protection 232. The study of industrial fire protection is continued. Fire and safety organizations in industry are described, and relations between private and public fire protection organizations are examined. Current trends, deficiencies, and possible solutions for industrial fire problems are discussed. The role of insurance and other special organizations is covered. Other topics cover industrial processes, equipment, facilities, and work practices. Both hazards and techniques to control hazards are included. Field trips to selected plants and demonstrations of new techniques, equipment, and innovations are also included. ECC ONLY

FIRE PROTECTION (FPT) 235 (3)
FIRE ADMINISTRATION II (3 LEC.)

Prerequisite: Fire Protection 135. Various aspects of the operation of a fire department are covered. Topics include insurance rates and ratings, budgets, training, city water requirements, and fire alarm and communication systems. The importance of public relations, report writing, and record keeping are stressed. Measurement of results, use of records to improve procedures, legal aspects of fire prevention and fire protection, and the design and construction of fire department buildings are also covered. ECC ONLY

FIRE PROTECTION (FPT) 236 (3)
LEGAL ASPECTS OF FIRE PROTECTION (3 LEC.)

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. ECC ONLY

FIRE PROTECTION (FPT) 237 (3)
HAZARDOUS MATERIALS II (3 LEC.)

Prerequisite: Chemistry 170. 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 porpellants 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. ECC ONLY

FIRE PROTECTION (FPT) 238. (3)
FIRE SAFETY EDUCATION (3 LEC.)

Physical, chemical, and electrical hazards are surveyed and related to loss of property and life. Codes, laws, problems, and cases are studied. The physical and psychological aspects of casualties are examined. Safe storage, transportation, and handling techniques are stressed to eliminate or control potential risks. ECC ONLY

FIRE PROTECTION (FPT) 239 (3)
FIRE SERVICE
COMMUNICATIONS (3 LEC.)

This course presents various communication and fire alarm systems. The installation, operation, and testing of the most common systems are included. Receiving, dispatching, and radio communication procedures are also included. Other topics cover regulations, the fire alarm operations office, mutual aid systems, fire station communications and facilities, response and fire ground procedures, emergency operations, code and numbering systems, required records and reports, and technological advances. ECC ONLY

FIRE PROTECTION (FPT) 240 (3)
FIRE INSURANCE
FUNDAMENTALS (3 LEC.)

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. ECC ONLY

FIRE PROTECTION (FPT) 241 (3)
ADVANCED FIRE LOSS
STATISTICAL SYSTEMS (3 LEC.)

This course is a study of computerized systems used for storing and retrieving fire loss statistics. Techniques for programming records and reports are covered. New systems of microfilming, including the modern technology of COM (computer output microfilm) and microfiche, are presented. Standards for uniform coding for fire protection are reviewed. ECC ONLY

FIRE PROTECTION (FPT) 242 (3)
URBAN FIRE PROBLEM
ANALYSIS (3 LEC.)

The urban fire problem is explored. Problems from lack of zoning and other land use laws are described. Research techniques and systems engineering are used to analyze water supply and fire alarm methods. Socio-economic and management factors are related to city planning. Environment problems are studied. ECC ONLY

FIRE PROTECTION (FPT) 243 (3)
TECHNICAL WRITING FOR
FIREFIGHTERS (3 LEC.)

Prerequisite: English. This course focuses on advanced writing in technical, scientific, and business fields. Included are reports, proposals, papers, and correspondence. Emphasis is on collecting, organizing, and presenting materials. ECC ONLY

FLUID POWER TECHNOLOGY (FLP) 222 (3)
FUNDAMENTALS OF
PNEUMATICS (2 LEC., 3 LAB.)

Pneumatic power units, pneumatic controls, and pneumatic cylinders are studied. Both construction and operation are covered. Pneumatic circuits, power operated holding devices, safety circuits, and remote controlled circuits are presented. Manual, mechanical, pilot, and solenoid operated circuits are all included. Laboratory fee. RLC ONLY

FLUID POWER TECHNOLOGY (FLP) 225 (4)
ADVANCED FLUID POWER SYSTEMS (3 LEC., 3 LAB.)

This course examines fluid power systems. Included is the design of hydraulic and pneumatic systems. Circuit calculations are made for force, torque, power, speed, fluid pressure, flow rate, and velocity. Emphasis is on the selection of pumps, cylinders, valves, motors, compressors, filters, and other fluid power components. The set-up, operation, and testing of various fluid power circuits are covered. Laboratory fee. RLC ONLY

FOOD SERVICE (FS) 119 (3)
FOOD SERVICE EQUIPMENT (3 LEC.)

This course covers food service equipment. Specifications, uses, cleaning, and preventive maintenance are emphasized. Equipment for preparation, cooking, refrigeration, storage, and clean-up 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. ECC ONLY

FOOD SERVICE (FS) 120 (3)
BASIC FOOD PREPARATION (2 LEC., 4 LAB.)

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. ECC ONLY

FOOD SERVICE (FS) 122 (3)
ADVANCED FOOD PREPARATION (2 LEC., 4 LAB.)

Prerequisite: Food Service 120. This course is a continuation of Food 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 on high preparation techniques for high quality. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 124 (3)
FOOD SERVICE SANITATION AND SAFETY (3 LEC.)

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, dishwashing procedures, the use of cleaning materials, garbage and refuse disposal, general safety precautions, and elementary first aid. ECC ONLY

FOOD SERVICE (FS) 132 (3)
FOOD PURCHASING, HANDLING AND STORAGE (3 LEC.)

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. ECC ONLY

FOOD SERVICE (FS) 135 (3)
NUTRITION AND MENU PLANNING (3 LEC.)

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. ECC ONLY

FOOD SERVICE (FS) 136 (3)
SUPERVISORY TECHNIQUES FOR FOOD SERVICE (3 LEC.)

Selecting, training, and supervising personnel for food service are studied. Personnel policies, job descriptions, teaching methods, schedule preparation, and work improvement are included. ECC ONLY

FOOD SERVICE (FS) 138 (3)
FOOD SERVICE COST CONTROL (3 LEC.)

Prerequisites: Food Service 132 and Math 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. ECC ONLY

FOOD SERVICE (FS) 140 (3)
ELEMENTARY BAKERY TRAINING (2 LEC., 4 LAB.)

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. ECC ONLY

FOOD SERVICE (FS) 201 (1)
SPECIAL TOPICS IN FOOD SERVICE (1 LEC.)

Prerequisite: The consent of the instructor. Students participate in identifying, defining, and analyzing current topics of interest in food service. 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 service processes. This course may be repeated for credit. ECC ONLY

FOOD SERVICE (FS) 202 (2)
SPECIAL TOPICS IN FOOD SERVICE (2 LEC.)

Prerequisite: The consent of the instructor. Students participate in identifying, defining, and analyzing current topics of interest in food service. 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 service processes. This course may be repeated for credit. ECC ONLY

FOOD SERVICE (FS) 203 (3)
SPECIAL TOPICS IN FOOD SERVICE (3 LEC.)

Prerequisite: The consent of the instructor. Students participate in identifying, defining, and analyzing current topics of interest in food service. 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 service processes. This course may be repeated for credit. ECC ONLY

FOOD SERVICE (FS) 220 (4)
QUANTITY FOOD PREPARATION AND SERVICE (3 LEC., 5 LAB.)

Prerequisite: Food 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 required. ECC ONLY

FOOD SERVICE (FS) 222 (4)
ADVANCED QUANTITY FOOD PREPARATION AND SERVICE (3 LEC., 5 LAB.)

Prerequisite: Food 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. ECC ONLY

FOOD SERVICE (FS) 231 (3)
FOOD SERVICE FINANCIAL MANAGEMENT (3 LEC.)

Financial aspects of food service are explored. Topics include profit planning, cost analysis, break-even point analysis, budgets, income statements, and balance sheets for commercial food service operations. Emphasis is on cost management, ratio analysis, and feasibility studies. ECC ONLY

FOOD SERVICE (FS) 233 (3)
FOOD MARKETING (3 LEC.)

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. ECC ONLY

FOOD SERVICE (FS) 237 (2)
ORGANIZATION AND MANAGEMENT (3 LEC.)

The organizational structure of various types of group care institutions is studied. Administration, tools of management, budget, and cost analysis are emphasized. ECC ONLY

FOOD SERVICE (FS) 238 (3)
GARDE-MANGER TRAINING (2 LEC., 4 LAB.)

Prerequisite: Food 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 set-up of the garde-manger station. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 239 (3)
SAUCIER TRAINING (2 LEC., 4 LAB.)

Prerequisite: Food 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 set-up of the saucier station is also included. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 242 (4)
COMMUNITY NUTRITION (3 LEC., 3 LAB.)

Prerequisite: Food Service 135. Nutrition knowledge is applied to the care for people. How people eat and why they eat are studied. Other topics include the racial and cultural aspects of food and nutrition, the socio-economic and psychological aspects of providing nutrition throughout the life cycle, and techniques of evaluating nutrition care. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 243 (4)
CLINICAL NUTRITION (3 LEC., 3 LAB.)

Prerequisite: Food Service 135. This course focuses on changes in nutrition necessary in illness and for special problems. Included are changes for individuals with cardiovascular disease, diabetes, weight control, malnutrition, and other health problems. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 244 (4)
CHILD NUTRITION (3 LEC., 3 LAB.)

Prerequisite: Food 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. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 245 (3)
ADVANCED PASTRY SHOP TRAINING (2 LEC., 4 LAB.)

Prerequisite: Food Service 140. This course covers the operation of the pastry shop. Topics include French pastry, hot and cold desserts, pastilage, ice creams, and ices, sugar fantasies, chocolate work, and decorations with cornet. Emphasis is on advance techniques in continental pastries. Laboratory fee. ECC ONLY

FOOD SERVICE (FS) 247 (3)
BEVERAGE OPERATIONS AND SERVICE (3 LEC.)

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.

FOOD SERVICE (FS) 804, 814 (4)
(See Cooperative Work Experience)

FRENCH (FR) 101 (4)
BEGINNING FRENCH (3 LEC., 2 LAB.)

The essentials of grammer and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. NOT AT CVC

FRENCH (FR) 102 (4)
BEGINNING FRENCH (3 LEC., 2 LAB.)

Prerequisite: French 101 or the equivalent. This course is a continuation of French 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. NOT AT CVC

FRENCH (FR) 201 (3)
INTERMEDIATE FRENCH (3 LEC.)

Prerequisite: French 102 or the equivalent. Reading, composition, and intense oral practice are covered in this course. Grammar is reviewed. NOT AT CVC

FRENCH (FR) 202 (3)
INTERMEDIATE FRENCH (3 LEC.)

Prerequisite: French 201 or the equivalent. This course is a continuation of French 201. Contemporary literature and composition are studied.

FRENCH (FR) 203 (3)
INTRODUCTION TO FRENCH LITERATURE (3 LEC.)

Prerequisite: French 202 or the consent of the instructor. This course is an introduction to French literature. It includes readings in French literature, history, culture, art, and civilization. NOT AT CVC, EFC

FRENCH (FR) 204 (3)
INTRODUCTION TO FRENCH LITERATURE (3 LEC.)

Prerequisite: French 202 or the consent of the instructor. This course is a continuation of French 203. It includes readings in French literature, history, culture, art, and civilization. NOT AT CVC, EFC

GEOGRAPHY (GPY) 101 (3)
PHYSICAL GEOGRAPHY (3 LEC.)

The physical composition of the earth is surveyed. Topics include weather, climate, topography, plant and animal life, land, and the sea. Emphasis is on the earth in space, use of maps and charts, and place geography. NOT AT CVC

GEOGRAPHY (GPY) 102 (3)
ECONOMIC GEOGRAPHY (3 LEC.)

The relation of humans to their environment is studied. Included is the use of natural resources. Problems of production, manufacturing, and distributing goods are explored. Primitive subsistence and commercialism are considered. NOT AT CVC, MVC

GEOGRAPHY (GPY) 103 (3)
CULTURAL GEOGRAPHY (3 LEC.)

This course focuses on the development of regional variations of culture. Topics include the distribution of races, religions, and languages. Aspects of material culture are also included. Emphasis is on origins and diffusion. NOT AT BHC, CVC, RLC

GEOLOGY (GEO) 101 (4)
PHYSICAL GEOLOGY (3 LEC., 3 LAB.)

This course is for science and non-science majors. It is a study of earth materials and processes. Included is an introduction to geochemistry, geophysics, the earth's interior, and magnetism. The earth's setting in space, minerals, rocks, structures, and geologic processes are also included. Laboratory fee. NOT AT CVC

GEOLOGY (GEO) 102 (4)
HISTORICAL GEOLOGY (3 LEC., 3 LAB.)

This course is for science and non-science majors. It is a study of earth materials and processes within a developmental time perspective. Fossils, geologic maps, and field studies are used to interpret geologic history. Laboratory fee. NOT AT CVC

GEOLOGY (GEO) 202 (3)
INTRODUCTION TO ROCK AND MINERAL IDENTIFICATION (1 LEC., 3 LAB.)

Prerequisites: Geology 101 and Geology 102. This course introduces crystallography, geochemistry, descriptive mineralogy, petrology, and phase equilibria. Crystal models and hand specimens are studied as an aid to rock and mineral identification. Laboratory fee. NOT AT BHC, CVC

GEOLOGY (GEO) 205 (4)
FIELD GEOLOGY (3 LEC., 3 LAB.)

Prerequisite: Geology 101 and/or Geology 102 or concurrent enrollment in Geology 101 or 102. Geological features, landforms, rocks, 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. NOT AT CVC, RLC

GERMAN (GER) 101 (4)
BEGINNING GERMAN (3 LEC., 2 LAB.)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee. NOT AT CVC, ECC

GERMAN (GER) 102 (4)
BEGINNING GERMAN (3 LEC., 2 LAB.)

Prerequisite: German 101 or the equivalent. This course is a continuation of German 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee. NOT AT CVC, ECC

GERMAN (GER) 201 (3)
INTERMEDIATE GERMAN (3 LEC.)

Prerequisite: German 102 or the equivalent or the consent of the instructor. Reading, composition, and intense oral practice are covered. Grammar is reviewed. NOT AT CVC, ECC

GERMAN (GER) 202 (3)
INTERMEDIATE GERMAN (3 LEC.)

Prerequisite: German 201 or the equivalent. This course is a continuation of German 201. Contemporary literature and composition are studied. NOT AT CVC, ECC

GOVERNMENT (GVT) 201 (3)
AMERICAN GOVERNMENT (3 LEC.)

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

GOVERNMENT (GVT) 202 (3)
AMERICAN GOVERNMENT (3 LEC.)

Prerequisite: Sophomore standing recommended. The three branches of the United States and Texas government are studied. Topics include the legislative process, the executive and bureaucratic structure, the judicial process, civil rights and liberties, and domestic policies. Other topics include foreign relations and national defense. This course satisfies requirements for Texas State Teacher's Certification. (This course is offered on campus and may be offered via television.)

GOVERNMENT (GVT) 205 (3)
STUDIES IN GOVERNMENT (3 LEC.)

Prerequisite: Sophomore standing and 6 hours of history or government. Selected topics in government are presented. The course may be repeatred once for credit when different topics are presented.

GOVERNMENT (GVT) 231 (3)
MUNICIPAL AND COUNTY GOVERNMENT (3 LEC.)

The structure of municipal and county government is examined. Topics include organs of government, administration, court systems, taxation, utilities and public works, education, welfare, and other public services. Presentations are given by local officials. Surveys of area problems are stressed.
BHC, CVC, RLC ONLY

GRAPHIC ARTS (GA) 131 (3)
GRAPHIC PROCESSES (2 LEC., 4 LAB.)

This course focuses on industrial requirements of employees in graphic arts. Habits and abilities are included. An overview of equipment is provided and its use demonstrated. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 134 (3)
BASIC CAMERA OPERATIONS (2 LEC., 4 LAB.)

Prerequisite: Graphic Arts 131. The operations and mechanics of the photo-lithographic camera are described. Included are fundamentals of halftone photography, lithographic negative stripping, and plate making. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 136 (3)
COPY PREPARATION (2 LEC., 4 LAB.)

Prerequisite: Concurrent enrollment in Graphic Arts 131. The basic operations of the varityper and headliner are studied. Letters, memos, manuals, tables, graphs, charts, reports, and booklets are produced. The drafting table and modern drafting tools are used. Steps from setting bold heading to finishing rough copy and preparing for the photographic master are included. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 140 (3)
OFFSET PRINTING I (2 LEC., 4 LAB.)

Prerequisite: Credit or concurrent enrollment in Graphic Arts 131. The principles of offset lithography are covered. Included is operation of the small offset lithographic press. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 201 (3)
PRODUCTION TECHNIQUES (2 LEC., 4 LAB.)

Prerequisites: Graphic Arts 134, 136, and 140. Students' skills and techniques are advanced in camera operations, printing, and copy preparation. The flow of material from stock to finished product and bindery procedures are also included. Emphasis is on integrating the operational steps of production into an efficient total process with quality control. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 202 (3)
PRODUCTION MANAGEMENT (2 LEC., 4 LAB.)

Prerequisite: Graphic Arts 201. The student is offered knowledge skill development needed in the management of a graphic arts production group are presented. Topics include organizational objectives, organizational structure and task planning, personnel requirements, and requirements for equipment, space, and information. Budget, communications, capability, accountability, and personnel morale are also included. Laboratory fee. EFC ONLY

GRAPHIC ARTS (GA) 240 (3)
OFFSET PRINTING II (2 LEC., 4 LAB.)

Prerequisite: Graphic Arts 140. Continuing development of the student in offset lithography is offered. Capabilities and limitations of presses are explored. Printed products are planned and produced. Emphasis is on standard production requirements and maintenance of equipment. Laboratory fee. EFC ONLY

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

HISTORY (HST) 101 (3)
HISTORY OF THE UNITED STATES (3 LEC.)

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

HISTORY (HST) 102 (3)
HISTORY OF THE UNITED STATES (3 LEC.)

Prerequisite: History 101 recommended. This course is a continuation of History 101. The history of the United States is surveyed from the reconstruction era to the present day. The study includes social, economic, and political aspects of American life. The development of the United States as a world power is followed. (This course is offered on campus and may be offered via television.)

HISTORY (HST) 105 (3)
WESTERN CIVILIZATION (3 LEC.)

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

HISTORY (HST) 106 (3)
WESTERN CIVILIZATION (3 LEC.)

This course is a continuation of History 105. It follows the development of civilization from the Enlightenment to current times. Topics include the Age of Revolution, the beginning of industrialism, the 19th century, the the social, economic, and political factors of recent world history.

HISTORY (HST) 110 (3)
THE HERITAGE OF MEXICO (3 LEC.)

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

NOT AT NLC

HISTORY (HST) 112 (3)
LATIN AMERICAN HISTORY (3 LEC.)

This course presents developments and personalities which have influenced Latin American history. Topics include Indian cultures, the Conquistadors, Spanish administration, the wars of independence, and relations with the United States. A brief survey of contemporary problems concludes the course. NOT AT EFC, NLC, RLC

HISTORY (HST) 120 (3)
AFRO-AMERICAN HISTORY (3 LEC.)

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. NOT AT EFC, NLC, RLC

HISTORY (HST) 204 (3)
AMERICAN MINORITIES (3 LEC.)

Prerequisites: Sociology 101 or 6 hours of U.S. history recommended. Students may register for either History 204 or Sociology 204 but may receive credit for only one of the two. The principal minority groups in American society are the focus of this course. The sociological significance and historic contributions of the groups are presented. Emphasis is on current problems of intergroup relations, social movements, and related social changes. NOT AT EFC, NLC

HISTORY (HST) 205 (3)
STUDIES IN U.S. HISTORY (3 LEC.)

Prerequisite: Sophomore standing and 6 hours of American history. Selected topics in the history of the United States are presented. The course may be repeated once for credit when different topics are presented.

HOROLOGY (HOR) 139 (8)
ANTIQUE CLOCK THEORY AND REPAIR (2 LEC., 23 LAB.) (275 CONTACT HOURS)

The history, design, and repair of clocks are covered. French, German, English, and Early American clocks are included, and both weight-driven and spring-driven clocks are studied. Types of clock movements to be reconditioned include grandfather, wall, shelf, and Westminster chime. Emphasis is on cleaning, rebushing plates, repivoting wheels, and adjusting chime and strike trains for count wheel and rack-and-snail types. The use and care of specialized hand tools and equipment are also covered. Laboratory fee. MVC ONLY

HOROLOGY (HOR) 140 (8)
MODERN CLOCK THEORY AND REPAIR (2 LEC., 23 LAB.) (275 CONTACT HOURS)

This course presents design factors and repair techniques of American, German, and Swiss clocks. Included are clocks with weight, spring, motor, and battery power in the 1-day, 8-day, and 400-day, and continuous synchronous electric variations. Repair and adjustment of anniversary, cuckoo, travel, alarm, timers, electric, cordless, and atmos clocks are included. Laboratory fee. MVC ONLY

HOROLOGY (HOR) 141 (8)
WATCH CLEANING AND ASSEMBLY (2 LEC., 23 LAB.) (275 CONTACT HOURS)

Hand cleaning and ultrasonic machine cleaning of watch movements are covered. Included are the removal of rust and scale, inspection, and lubrication of subassemblies. Pocket watches and gent's wrist and ladies' baguette sizes are included. Emphasis is on the use and care of precision hand tools, personal work habits, and attitudes. The polishing case, crystal, and band is also stressed. Timing record analysis is introduced. Laboratory fee. MVC ONLY

HOROLOGY (HOR) 142 (8)
WATCH PART REPLACEMENT (2 LEC., 23 LAB.) (275 CONTACT HOURS)

The precise selection and replacement of damaged watch parts are the focus of this course. Detailed procedures are covered for changing balance staffs, stems, crown, gaskets, hands, roller jewels, balance and plate jewels, pallet jewels, and mainsprings. Emphasis is on nomenclature, movement identification, and metric measurement. The use and care of many special tools are introduced, with particular emphasis on the staking tool. Laboratory fee. MVC ONLY

HOROLOGY (HOR) 143 (8)
ADVANCED WATCHMAKING I (2 LEC., 23 LAB.) (275 CONTACT HOURS)

This course emphasizes the jeweled lever escapement principles, hairspring manipulations, and position adjusting. Electronic timing machine records are analyzed to find causes of error and to make corrections. Self-winding devices and calendar watch features are thoroughly presented. Laboratory fee. MVC ONLY

HOROLOGY (HOR) 144 (8)
ADVANCED WATCHMAKING II (2 LEC., 23 LAB.) (275 CONTACT HOURS)

The repair and adjustment of complicated watches are presented, including the stopwatch and wrist chronograph. Also covered are electric and electronic movements with tuning fork and quartz crystal resonators and electronic modules. Customer and business relations are practiced through estimating repairs, ordering parts, and participation in local and national craft organizations. Laboratory fee. MVC ONLY

HORTICULTURE TECHNOLOGY (HLN) 131 (4)
HORTICULTURE SCIENCE (3 LEC., 3 LAB.)

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. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 132 (2)
LANDSCAPE PLANT MATERIALS I (1 LEC., 3 LAB.)

The identification and classification of landscape trees are studied. Characteristics and landscape uses are included. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 133 (2)
LANDSCAPING PLANT MATERIALS II (1 LEC., 3 LAB.)

The identification and classification of landscape shrubs, vines, and ground covers are studied. Characteristics and landscape uses are included. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 140 (3)
HERBACEOUS AND EXOTIC PLANTS (2 LEC., 3 LAB.)

The identification, culture, and use of ornamental herbaceous plants are studied. Plants for homes, gardens, and conservatories are included. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 141 (4)
FLORAL DESIGN (2 LEC., 6 LAB.)

This course presents the principles of floral art, flowers, and other design materials. Special and unusual floral designs are included. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 145 (3)
LANDSCAPE DEVELOPMENT I (1 LEC., 6 LAB.)

Prerequisite: Horticulture Technology 131 or the consent of 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. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 146 (3)
FUNDAMENTALS OF LANDSCAPE PLANNING (1 LEC., 6 LAB.)

Concepts and practices used in preparing landscape plans and in constructing and improving landscapes are covered. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY (HLN) 147 (3)
LANDSCAPE DEVELOPMENT II (1 LEC., 6 LAB.)

Prerequisite: Horticulture Technology 131 or the consent of 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. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 226 (3)
GREENHOUSE HORTICULTURE (2 LEC., 3 LAB.)

Prerequisite: Horticulture Technology 131 and either Chemistry 115 or Physical Science 118. The construction and operation of ornamental horticulture production structures are studied. Included are greenhouses, plastic houses, lath houses, hotbeds, and coldframes. Emphasis is on environmental control and efficiency in production operations. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 231 (4)
LANDSCAPE DESIGN (2 LEC., 6 LAB.)

Prerequisite: 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. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 232 (4)
LANDSCAPE PLANNING AND MANAGEMENT (2 LEC., 6 LAB.)

Prerequisite: Horticulture Technology 145 and 231. Landscape business operations and landscape principles are studied in depth. Topics include the landscape horticulture industry, management practices, marketing methods, and advanced skills in landscape planning. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 233 (3)
NURSERY OPERATIONS (2 LEC., 3 LAB.)

Prerequisite: Horticulture Technology 131 and either Chemistry 115 or Physical Science 118. 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. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 234 (3)
ORNAMENTAL CROP PRODUCTION (2 LEC., 3 LAB.)

Prerequisite: Horticulture Technology 226 and 233. Advanced methods of crop production in the nursery and greenhouse are presented. Topics include container nursery production, turf grass production, cut flower and pot plant production, and the field propagation and production of nursery stock. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 235 (2)
ORNAMENTAL WOODY PLANT PROPAGATION (1 LEC., 3 LAB.)

Prerequisite: Horticulture Technology 131. This course covers all phases of the 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.

HORTICULTURE TECHNOLOGY
(HLN) 236 (4)
FLORIST MANAGEMENT (2 LEC., 6 LAB.)

Prerequisite: Horticulture Technology 141. Operations and design skills in the retail florist business are studied. Topics include the florist industry, management practices, marketing methods, and advanced techniques in floral art. Laboratory fee. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 239 (2)
APPLIED HORTICULTURE TRAINING (10 LAB.)

Prerequisite: Horticulture Technology 141 or 231 and concurrent enrollment in Horticulture Technology 240. This course provides work experience in the ornamental horticulture field. Possible areas of work include park maintenance, landscape construction, landscape maintenance, florist operations, and wholesale and retail sales. All experiences are closely supervised and directed toward the attainment of the student's occupational goals. RLC ONLY

HORTICULTURE TECHNOLOGY
(HLN) 240 (2)
SEMINAR IN HORTICULTURE OCCUPATIONS (2 LEC.)

Prerequisite: Concurrent enrollment in Horticulture Technology 239. This course presents problems and problem-solving methods used in ornamental horticulture. Emphasis is on the analysis of skills and the supervision and training of ornamental horticulture workers. RLC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 110 (3)
PRINCIPLES OF HOTEL ADMINISTRATION (3 LEC.)

The physical aspects of hotel-motel operations are analyzed. Included are procedures for emergencies, check cashing, use of credit cards, and collection of accounts receivable. Emphasis is also given to guest relations, guest room facilities, protection of the property, and the development of the properties' growth. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 112 (3)
HOTEL-MOTEL HOUSEKEEPING (3 LEC.)

This course focuses on the methods, procedures, and policies of housekeeping in a hotel or motel. Topics include departmental organization, employee supervision, work organization and assignments, materials and equipment, and room design and layout. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 114 (3)
FRONT OFFICE PROCEDURES (2 LEC., 4 LAB.)

The everyday procedures of the front desk are covered. The use of the guest registration card and other forms are included. Also included are the operation of the room rack, selling of rooms, reservations and inquiries, and general problems. Methods of handling accounts in hotels of various sizes are presented. The operation of NCR 4200 is covered, and its uses are thoroughly analyzed. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 116 (3)
HOTEL-MOTEL MAINTENANCE AND ENGINEERING (3 LEC.)

This course examines the maintenance and engineering departments. Preventive programs and maintenance procedures are covered. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 210 (3)
HOTEL-MOTEL SALES DEVELOPMENT (3 LEC.)

The techniques 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. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 212 (3)
HOTEL-MOTEL ACCOUNTING (3 LEC.)

The principles of hotel and motel accounting are presented. Topics include the meaning and purposes of accounting, journalizing, periodic adjustments, and formal statements. Emphasis is on the analysis of financial statements for making decisions in the operation of hotels and motels. ECC ONLY

HOTEL-MOTEL OPERATIONS
(HMO) 214 (3)
HOTEL-MOTEL LAW (3 LEC.)

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. ECC ONLY

HOTEL-MOTEL OPERATIONS (HMO) 216 (3)
HOTEL-MOTEL PROPERTY MANAGEMENT (3 LEC.)

All phases of property management are studied. Emphasis is on the guest's first impressions. Staffing, training, capital investments, cost analysis, rentals, and renovation of all types and sizes of properties are included. ECC ONLY

HOTEL/MOTEL OPERATIONS (HMO) 804, 814 (4)
(See Cooperative Work Experience)

HUMAN DEVELOPMENT (HD) 100 (1)
EDUCATIONAL ALTERNATIVES (1 LEC.)

The learning environment is introduced. Career, personal study skills, educational planning, and skills for living are all included. Emphasis is on exploring career and educational alternatives and learning a systematic approach to decision-making. A wide range of learning alternatives is covered, and opportunity is provided to participate in personal skills seminars. NOT AT EFC, RLC.

HUMAN DEVELOPMENT (HD) 102 (1)
SPECIAL TOPICS IN HUMAN DEVELOPMENT (1 LEC.)

This is a course intended to help the student succeed in college. Topics such as stress management, communications training for the handicapped, career exploration techniques, or educational concerns of adult students may be included. This course may be repeated for credit.

HUMAN DEVELOPMENT (HD) 104 (3)
EDUCATIONAL AND CAREER PLANNING (3 LEC.)

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

HUMAN DEVELOPMENT (HD) 105 (3)
BASIC PROCESSES OF INTERPERSONAL RELATIONSHIPS (3 LEC.)

This course is designed to help the student increase self-awareness and to learn to relate more effectively to others. Students are made aware of their feelings, values, attitudes and behaviors. The course content focuses on developing communication skills such as assertiveness, verbal and non-verbal behavior, listening, and conflict resolution.

HUMAN DEVELOPMENT (HD) 106 (3)
PERSONAL AND SOCIAL GROWTH (3 LEC.)

This course focuses on the interaction between the individual and society. Societal influences, adjustment to social change, personal roles, and problem-solving are stressed. Components of a healthy personality, alternative behaviors, and lifestyles that demonstrate a responsibility to self and society are studied.

HUMAN DEVELOPMENT (HD) 107 (3)
DEVELOPING LEADERSHIP BEHAVIOR (3 LEC.)

The basic purpose of this course is to help the student develop leadership and human relation skills. Topics include individual and group productivity, value systems, 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.

HUMAN SERVICES (HS) 131 (3)
ORIENTATION TO HUMAN SERVICES (3 LEC.)

This course introduces the field of human services. Students explore their interest and potential for working in a social service agency. Contacts with community social service agencies are made. EFC, RLC ONLY

HUMAN SERVICES (HS) 134 (3)
HUMAN SERVICES SEMINAR (3 LEC.)

This course continues Human Services 131. Emphasis is on class discussion and sharing of experiences. A problem-solving approach is used for individual, family, and community issues.

HUMAN SERVICES (HS) 230 (3)
NURSING HOME ACTIVITY DIRECTOR TRAINING (2 LEC., 4 LAB.)

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. ECC, RLC ONLY

HUMAN SERVICES (HS) 231 (3)
PROCEDURES IN SOCIAL WORK (3 LEC.)

Prerequisites: Sociology 101, Sociology 204, and concurrent enrollment in Human Services 242. The processes of social treatment used by social workers with individuals, groups, and communities are presented. Principles and ethics of social service work and questions of motivation, acceptance, and attitude are covered. Techniques of listening, observing, and recording which aid the student in integrating classroom and work experience are also covered.

HUMAN SERVICES (HS) 233 (3)
COUNSELING FOR THE PARAPROFESSIONAL (3 LEC.)

Prerequisite: Permission of the coordinator of the Human Services Program, or concurrent enrollment in Human Services 242. The principles and practices of interviewing and counseling are introduced. The effectiveness of these techniques are explored for counselor aides, mental health or social worker associates, and other "new careers" in people-to-people services. ECC, RLC ONLY

HUMAN SERVICES (HS) 235 (3)
INTRODUCTION TO MENTAL HEALTH (3 LEC.)

Prerequisite: Psychology 105 or consent of the coordinator of the Human Services Program. Concurrent enrollment in Human Services 240-field work. This course focuses on the field of mental health. Topics include history,terms, concepts, and ethics. Behavior and environmental factors promoting mental health are analyzed. Skills for identifying symptoms of maladjustment are developed. Ways to provide for emotional outlets and emotional control are considered. EFC, RLC ONLY

HUMAN SERVICES (HS) 240 (2)
WORK EXPERIENCE IN HUMAN SERVICES (FIELD WORK) (10 LAB.)

Prerequisite: Consent of the coordinator of the Human Services Program and concurrent enrollment in Human Services 241 or 243. This course provides work experience in a social agency. Ten hours per week are required during the second year of the program. RLC ONLY

HUMAN SERVICES (HS) 241 (2)
WORK EXPERIENCE SEMINAR (2 LEC.)

Prerequisite: Concurrent enrollment in Human Services 240 or 242. Work experiences are discussed and problems analyzed in a seminar with other students in the human services program meeting two hours per week with the program coordinator on campus. RLC ONLY

HUMAN SERVICES (HS) 242 (2)
WORK EXPERIENCE IN HUMAN SERVICES (FIELD WORK) (10 LAB.)

Prerequisite: Consent of the coordinator of the Human Services Program and concurrent enrollment in Human Services 241 or 243. This course provides work experience in a social agency. Ten hours per week are required during the second year of the program. RLC ONLY

HUMAN SERVICES (HS) 243 (2)
WORK EXPERIENCE SEMINAR (2 LEC.)

Prerequisites: Concurrent enrollment in Human Services 240 or 242. Work experiences are discussed and problems analyzed with other students in Human Services Program, meeting two hours per week with program coordinator on campus. RLC ONLY

HUMAN SERVICES (HS) 244 (3)
SOCIAL WORK PROBLEMS AND PRACTICES (3 LEC.)

Prerequisite: Concurrent enrollment in Human Services 803. Social work experiences are discussed and problems analyzed with other students in the Human Services Program, meeting three hours per week with the program coordinator. EFC ONLY

HUMAN SERVICES (HS) 245 (3)
SOCIAL WORK PROBLEMS AND PRACTICES (3 LEC.)

Prerequisite: Concurrent enrollment in Human Services 813. Social work experiences are discussed and problems analyzed with other students in the human services program meeting three hours per week with the program coordinator. EFC ONLY

HUMAN SERVICES (HS) 703, 713 (3)
(See Cooperative Work Experience)

HUMAN SERVICES (HS) 704, 714, (3)
(See Cooperative Work Experience)

HUMAN SERVIECS (HS) 802, 812, (4)
(See Cooperative Work Experience)

HUMAN SERVICES (HS) 803 (3)
(See Cooperative Work Experience) Prerequisite: Concurrent enrollment in Human Services 244.

HUMAN SERVICES (HS) 813 (3)
(See Cooperative Work Experience) Prerequisite: Concurrent enrollment in Human Services 245.

HUMAN SERVICES (HS) 804, 814, (4)
(See Cooperative Work Experience)

HUMANITIES (HUM) 101 (3)
INTRODUCTION TO THE HUMANITIES (3 LEC.)

Related examples of humans' creative achievements are examined. Emphasis is on understanding the nature of humans and the values of human life. (This course is offered on campus and may be offered via television. Laboratory fee required for television course.)

HUMANITIES (HUM) 102 (3)
ADVANCED HUMANITIES (3 LEC.)

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

INTERIOR DESIGN (INT) 120 (3)
BASIC PLANNING (2 LEC., 4 LAB.)

Prerequisites: Interior Design major and concurrent enrollment in Interior Design 121. This course focuses on basic drawing and the use of drafting instruments. Included are the drawing of two and three-dimensional forms, floor plans, interior elevations, sections, and furniture. The reading of architectural drawings, producing good quality lettering and line work, use of architectural symbols, and printing are emphasized. Laboratory fee. ECC ONLY

INTERIOR DESIGN (INT) 121 (3)
BASIC COLOR THEORY FOR INTERIOR DESIGN (2 LEC., 4 LAB.)

Prerequisites: Interior Design major

and concurrent enrollment in Interior Design 120. Color theory and systems are studied. Mixing techniques for transparent and opaque pigments are covered. The use of values, tints, and intensities is practiced. Basic color schemes and color psychology are applied to Interior Design 120 projects. ECC ONLY

INTERIOR DESIGN (INT) 123 (3)
ADVANCED PLANNING AND PERSPECTIVE (2 LEC., 4 LAB.)

Prerequisites: Interior Design 120 and 121 and concurrent enrollment in Interior Design 124 and 225. The student applies methods and principles of one and two point perspective. Orthographic, oblique, and isometric projections are made of furniture studies. Advanced plans and elevations are incorporated into portfolio presentations. ECC ONLY

INTERIOR DESIGN (INT) 124 (3)
COLOR AND LIGHTING (2 LEC., 4 LAB.)

Prerequisites: Interior Design 120 and 121 and concurrent enrollment in Interior Design 123. The interrelationship of color and lighting is applied to total space concepts. Qualitative and quantitative aspects of lighting are assessed in relation to color schemes. A study is made of fixtures. Electrical plans and specifications are correlated with projects in Interior Design 123. ECC ONLY

INTERIOR DESIGN (INT) 144 (1)
PHILOSOPHY OF DESIGN (1 LEC.)

Prerequisites: Current enrollment in Interior Design Program or the consent of the instructor. Readings and discussions of selected major designers and architects whose philosophy and work have influenced the course of 20th century design are studied. ECC ONLY

INTERIOR DESIGN (INT) 222 (5)
HISTORY OF INTERIOR ARTS I (5 LEC.)

Prerequisites: Interior Design 123, 124, and 225 and concurrent enrollment in Interior Design 226 and 233. The evolution of the interior arts and related architectural development are surveyed. The Egyptian Period through the French Period is covered.

INTERIOR DESIGN (INT) 223 (5)
HISTORY OF INTERIOR ARTS II (5 LEC.)

Prerequisites: Interior Design 222, 226, and 233 and concurrent enrollment in Interior Design 224, 225 and 235. The study of the history of interior arts is continued. The English Period through Oriental Period is covered. ECC ONLY

INTERIOR DESIGN (INT) 224 (3)
INTERIOR GRAPHICS AND ILLUSTRATION (2 LEC., 4 LAB.)

Prerequisites: Interior Design 222, 226, and 233 and concurrent enrollment in Interior Design 223, and 234. Design projects based on traditional styles are developed. Mechanical systems and acoustical considerations are studied. Both formal and informal presentations are made. Projects include working drawings. ECC ONLY

INTERIOR DESIGN (INT) 225 (3)
ARCHITECTURAL DRAWINGS I (2 LEC., 4 LAB.)

Prerequisites: Interior Design 120 and 121 and concurrent enrollment in Interior Design 123 and 124. Wood frame construction is studied. Introduction is made to construction drawings. A basic residential floor plan, from which working drawings are prepared, is given to the student. The working drawings include floor plans, sections, elevations, schedules, and details. Lettering, line quality, and dimensioning are emphasized. Laboratory fee. ECC ONLY

INTERIOR DESIGN (INT) 226 (3)
ARCHITECTURAL DRAWING II (2 LEC., 4 LAB.)

Prerequisites: Interior Design 123, 124, 225 and concurrent enrollment in Interior Design 222 and 233. Three-dimensional objects are rendered from still life, and human and architectural forms. Emphasis is on freehand perspective in mixed media. ECC ONLY

INTERIOR DESIGN (INT) 233 (3)
FABRICATIONS I (2 LEC., 4 LAB.)

Prerequisites: Interior Design 123, 124, and 225 and concurrent enrollment in Interior Design 222 and 226. This course provides for the student a practical working knowledge of crafts and techniques involved in constructions and installations. The student is required to study and implement good design principles using the materials studied in this course. Laboratory fee. ECC ONLY

INTERIOR DESIGN (INT) 234 (3)
FABRICATIONS II (2 LEC., 4 LAB.)

Prerequisites: Interior Design 222, 226, 233, and 235 and concurrent enrollment in Interior Design 223 and 224. This course is a continuation of Interior Design 233. Emphasis is on crafts and techniques involved in constructions and installations. Laboratory fee. ECC ONLY

INTERIOR DESIGN (INT) 235 (3)
INNER SPACE COMPOSITION AND PRESENTATION (2 LEC., 4 LAB.)

Prerequisites: Interior Design 123, 124, and 225 and concurrent enrollment in Interior Design 222, 226, and 233. All elementary principles of interior design are used for problem-solving assignments. Emphasis is on quick sketch solutions. ECC ONLY

INTERIOR DESIGN (INT) 237 (4)
ADVANCED PRINCIPLES OF INTERIOR DESIGN (3 LEC., 3 LAB.)

Prerequisites: Interior Design 223, 224, 234, and 235 and concurrent enrollment in Interior Design 340, 342, and 341 or 811. This course focuses on the organization of all aspects of interior and related exterior space. Color and design of all materials are coordinated. Professional problem solving and formal presentation for contemporary design are stressed. Emphasis is on contemporary residential interior projects. ECC ONLY

INTERIOR DESIGN (INT) 238 (4)
CLIENT PSYCHOLOGY SURVEY AND BUSINESS PROCEDURES (3 LEC., 3 LAB.)

Prerequisites: Interior Design 237, 340, 342, and 811 or 341, and concurrent enrollment in Interior Design 239 and 343. This course is study of designer and client relations. Topics include the analysis of the client's needs by interview and survey, the calculation of the proper design and presentation for the individual client and the application of client psychology principles. The use of source catalogs, showrooms, local crafts, and workrooms is also included. Cost estimates, contracts, studio organization, professional ethics, and the coordination of orders, fabrics, and installations are also covered. ECC ONLY

INTERIOR DESIGN (INT) 239 (4)
PRINCIPLES OF COMMERCIAL INTERIOR DESIGN (3 LEC., 3 LAB.)

Prerequisites: Interior Design 237, 341, 342, or 811 and concurrent enrollment in Interior Design 238 and 343. This course is a continuation of Interior Design 237. Field trips to professional studios, workrooms and factories are included. Emphasis is on the study of traditional and contemporary commercial interiors. The latest trends and materials are surveyed and used. A study and application of acoustics is included. ECC ONLY

INTERIOR DESIGN (INT) 240 (1)
DESIGN SOURCES (1 LEC.)

Prerequisites: Interior Design 123 and 124 and concurrent enrollment in Interior Design 224 and 234. This is an independent study (seminar) course designed to allow students to do the in-depth research of existing sources of materials, furnishings, accessories, fabricators, and workrooms that is necessary to implement design jobs. ECC ONLY

INTERIOR DESIGN (INT) 341 (1)
SPECIAL PROJECT (1 LEC.)

Prerequisites: Interior Design 223, 224, and 235 and concurrent enrollment in Interior Design 237 and 342. A design problem is assigned to each student. All work is accomplished outside of class, with complete presentation of the problem and its solution due at tne end of the semester. Analysis, plan, illustration; and presentation are included. Consultation with the instructor is scheduled regularly. The scope of the problem is directed and controlled by the instructor. ECC ONLY

INTERIOR DESIGN (INT) 342 (3)
20th CENTURY DESIGNS (3 LEC.)

Prerequisites: Interior Design 223, 224, 234, and 235 and concurrent enrollment in Interior Design 237 and 811 or 341. This course focuses on interior design in the 20th century and current developments in environmental design. ECC ONLY

INTERIOR DESIGN (INT) 343 (2)
RESEARCH AND PRESENTATION (2 LEC.)

Prerequisites: Interior Design 237, 341, or 811, and 342 and concurrent enrollment in Interior Design 238 and 239. A research problem is studied in depth and solved through the development of a complete design process. All steps are included, from the survey to defense of the final presentation before a jury. ECC ONLY

INTERIOR DESIGN (INT) 801, 811 (1)
(See Cooperative Work Experience)

INTERIOR DESIGN (INT) 802, 812 (2)
(See Cooperative Work Experience)

JOURNALISM (JN) 101 (3)
INTRODUCTION TO MASS COMMUNICATIONS (3 LEC.)

This course surveys the field of mass communications. Emphasis is on the role of mass media in modern society.

JOURNALISM (JN) 102 (3)
NEWS GATHERING AND WRITING (2 LEC., 3 LAB.)

Prerequisite: Typing ability. Beginning reporting is presented. Topics include types of news, leads, body treatment of a story, feature in the lead, facts, and background. A practice in writing straight news stories is provided.

JOURNALISM (JN) 103 (3)
NEWS GATHERING AND WRITING (2 LEC., 3 LAB.)

Prerequisite: Journalism 102. This course is a continuation of Journalism 102. Complex news stories are written. Specialized writing is covered for sports, police news, markets, finance, society, amusements, government, and women's stories. Laboratory work on the student newspaper is required.

JOURNALISM (JN) 104 (1)
STUDENT PUBLICATIONS (3 LAB.)

This course may not be taken for credit concurrently with Journalism 102 or 103. Individual staff assignments are made for the student newspaper. Assignments may be made in writing, advertising, photography, cartooning, or editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may be repeated for a total of three credits.

JOURNALISM (JN) 105 (1)
STUDENT PUBLICATIONS (3 LAB.)

This course may not be taken for credit concurrently with Journalism 102 or 103. The course is a continuation of Journalism 104.

JOURNALISM (JN) 201 (3)
EDITORIAL AND FEATURE WRITING (3 LEC.)

Prerequisites: 6 hours of journalism or the consent of the instructor. This course covers difficult news stories, editorials, and features. Research, interviewing techniques, and the development of feature stories for use in newspapers and magazines are emphasized.

JOURNALISM (JN) 202 (1)
STUDENT PUBLICATIONS (3 LAB.)

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

JOURNALISM (JN)203 (1)
STUDENT PUBLICATIONS (3 LAB.)

This course may not be taken for credit concurrently with Journalism 102 or 103. The course is a continuation of Journalism 202.

JOURNALISM (JN) 204 (3)
NEWS EDITING AND COPY READING (3 LEC.)

Prerequisite: Journalism 102. This course focuses on editing news for newspaper, radio, and television. Emphasis is on writing headlines and laying out pages.

LEGAL ASSISTANT (LA) 131 (3)
INTRODUCTION TO LEGAL TECHNOLOGY (3 LEC.)

Prerequisite: Concurrent enrollment in 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. ECC ONLY

LEGAL ASSISTANT (LA) 133 (3)
LAW OF REAL PROPERTY AND REAL ESTATE TRANSACTION (3 LEC.)

Prerequisites: Legal Assistant 131 and 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. ECC ONLY

LEGAL ASSISTANT (LA) 134 (3)
PRINCIPLES OF FAMILY LAW (3 LEC.)

Prerequisites: Legal Assistant 131 and 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. ECC ONLY

LEGAL ASSISTANT (LA) 135 (3)
TEXAS LEGAL SYSTEMS (3 LEC.)

Prerequisite: Concurrent enrollment in Legal Assistant 131. The court system of Texas is studied. Legal practices related to the courts and principles of court administration are examined. The federal court system is reviewed. ECC ONLY

LEGAL ASSISTANT (LA) 139 (2)
LEGAL RESEARCH AND DRAFTING (1 LEC., 2 LAB.)

Prerequisite: Legal Assistant 131 and 135 and English 101. This course familiarizes the beginning legal assistant student with the use of a law library and the various research materials and tools contained in a standard law library and provides the student with a more comprehensive vocabulary of legal terminology. Research techniques for case reporters, federal and state statutes and constitutions, secondary research materials and Shepard's Citators are studied. Basic citation form for all resource materials is discussed. Students are given opportunities to research rudimentary legal problems and to write short memoranda. Laboratory fee. ECC ONLY

LEGAL ASSISTANT (LA) 225 (3)
BUSINESS ORGANIZATIONS (3 LEC.)

Prerequisites: Legal Assistant 131 and 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). ECC ONLY

LEGAL ASSISTANT (LA) 227 (3)
CIVIL LITIGATION (3 LEC.)

Prerequisites: Legal Assistant 131 and 135, English 101 or the consent of the instructor. This course is an overview of civil litigation in both state and federal court 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 client 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., products liability, civil rights, securities and antitrust). Principal emphasis is on procedural techniques rather than substantive areas of law. ECC ONLY

LEGAL ASSISTANT (LA) 231 (3)
WILLS, TRUSTS, AND
PROBATE ADMINISTRATION (3 LEC.)

Prerequisites: Legal Assistant 133 and 135 or the consent of 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 Texas Probate Law is analyzed, and estate and inheritance taxes are reviewed. ECC ONLY

LEGAL ASSISTANT (LA) 232 (3)
TORT AND INSURANCE LAW
AND CLAIMS INVESTIGATION (3 LEC.)

Prerequisites: Legal Assistant 131 and 135, and English 101 or the consent of 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. ECC ONLY

LEGAL ASSISTANT (LA) 233 (3)
INCOME TAXATION AND LEGAL
ACCOUNTING (3 LEC.)

Prerequisites: Legal Assistant 131 and 135 and Business 202 or the consent of the instructor. This course is a study of federal, state and local income taxation. Individuals and tax-paying entities such as estates, trusts and corporations are all included. Emphasis is on the preparation of basic tax returns and other tax-related documents. Accounting related to legal problems is also introduced. ECC ONLY

LEGAL ASSISTANT (LA) 234 (3)
PERSONAL PROPERTY, SALES
AND CREDIT TRANSACTIONS (3 LEC.)

Prerequisites: Legal Assistant 131 and 135 and English 101 or the consent of 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. ECC ONLY

LEGAL ASSISTANT (LA) 235 (4)
TECHNIQUES OF LEGAL
PRACTICE AND PROCEDURES (3 LEC., 3 LAB.)

Prerequisites: Legal Assistant 131, 133, 135, and 231 and English 101. This course provides training in the preparation of legal documents. Topics include the statute of limitations, client interviews and interview forms, complaints, interrogatories, depositions, answers, motions, and orders to show cause. Also included are third-party practice, orders, medical records, judgments, pre-trials, settlements, and releases. Laboratory fee. ECC ONLY

LEGAL ASSISTANT (LA) 236 (2)
LEGAL OFFICE MANAGEMENT (2 LEC.)

Prerequisites: Legal Assistant 231 and 233 and Business 202. All aspects of law office management are covered. Topics include ethics, office organization, bookkeeping and accounting, fees and billing procedures, scheduling and calendaring, and legal research. Management of personnel, proofreading, investigations, file preparation, legal drafting, and procedures for specialized areas of law are also included. Trust accounts, law office forms, check list and files, and disbursement on behalf of clients are covered. ECC ONLY

LEGAL ASSISTANT (LA) 248 (3)
CONSTITUTIONAL AND
CRIMINAL LAW (3 LEC.)

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. ECC ONLY

LEGAL ASSISTANT (LA) 251 (3)
COMPLEX LITIGATION AND THE ANTITRUST
AND SECURITIES LAWS (3 LEC.)

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 complex 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 complex litigation. ECC ONLY

LEGAL ASSISTANT (LA) 255 (3)
OIL AND GAS LAW (3 LEC.)

Prerequisites: Legal Assistant 133 or the consent of the instructor. Oil and gas law's history, terminology and principle instruments are examined. Litigation of oil and gas matters, title determination, division of interests, and major regulatory agencies are also discussed. ECC ONLY

LEGAL ASSISTANT (LA) 803, 813 (3)
(See Cooperative Work Experience)

LEGAL ASSISTANT (LA) 804, 814 (4)
(See Cooperative Work Experience)

LIBRARY SKILLS (LS) 101 (3)
INTRODUCTION TO LIBRARY
RESEARCH (3 LEC.)

In this course the student explores the various types of print and non-print sources of information and learns to document research. Emphasis is on practical skills with a great deal of hands-on experience. The course skills consist of lectures as well as the following learning experiences: (1) examination of the specific materials covered in the lecture, (2) completion of appropriate exercises

MACHINE PARTS INSPECTION (MPI)
122 (3)
INDUSTRIAL QUALITY CONTROL AND PROCEDURES (3 LEC.)

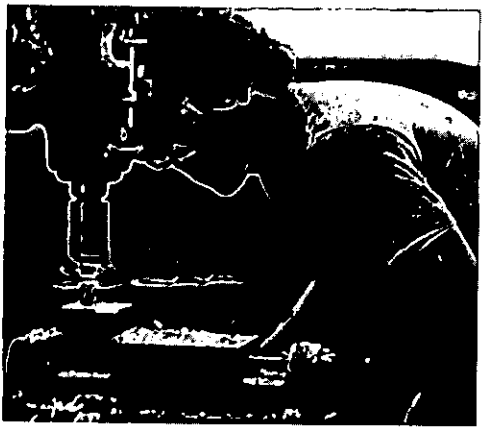
Prerequisite: The consent of the instructor. An overview of the history of industrial practices, present trends and opportunities in the field of quality control are explored. Emphasis is on stimulating interest in the quality control field, and information is provided to help prepare the student for possible future employment. MVC ONLY

MACHINE PARTS INSPECTION (MPI)
124 (5)
BASIC INSPECTION FUNDAMENTALS (1 LEC., 8 LAB.)

Prerequisite: The consent of the instructor. The basics of inspection fundamentals are stressed and include terminology, use of basic measuring instruments, and measuring techniques. The student gains a respect for the complex nature of industrial quality control techniques in practice today. The laboratory experiences bring together theory and practical applications appropriate to prepare for the entrance into productive industrial experiences. The use and care of measuring instruments becomes a familiar daily task through laboratory exercises. MVC ONLY

MACHINE PARTS INSPECTION (MPI)
135 (5)
INTERMEDIATE INSPECTION CONCEPTS (1 LEC., 8 LAB.)

Prerequisite: Machine Parts Inspection 124 or the consent of the instructor. The more complicated aspects of industrial inspection are emphasized as the basics are reviewed and applied through the laboratory experiences. Inspection bookkeeping is introduced as a more specific part of the curriculum, and more complex measuring and holding devices are explored. Accuracy and reliability are stressed as more amplification is introduced in each measuring technique. Optical and pneumatic comparators are introduced, and light wave systems are discussed. MVC ONLY



MACHINE PARTS INSPECTION (MPI)
138 (3)
GEOMETRIC TOLERANCING AND TRUE POSITIONING (2 LEC., 2 LAB.)

Prerequisite: The consent of the instructor. This basic course is designed to prepare students entering the manufacturing industries for the complex techniques and practices using geometric symbols related to engineering, production, and quality control operations. The advantages of a system of geometric symbols which provides dimensioning and tolerancing with respect to actual function and relationship of part features are stressed. Practical application connects this complex theory with the practical world of automated, computerized industry today. MVC ONLY

MACHINE PARTS INSPECTION (MPI)
220 (3)
INTRODUCTION TO MATERIALS AND PROCESSES (3 LEC.)

Prerequisite: Machine Parts Inspection 122 and Quality Control Technology 122 or the consent of the instructor. Information concerning properties of materials inherent and acquired in industry today is presented, including basic information to help prepare a student for making decisions concerning future training in specialized fields. The areas covered include metals, woods, plastics and natural products and their relationship to industry in the natural state, during processing, and the final usage. MVC ONLY

MACHINE PARTS INSPECTION (MPI) 223 (5)
ADVANCED INSPECTION CONCEPTS (1 LEC., 8 LAB.)

Prerequisite: Machine Parts Inspection 124 and 135 or the consent of the instructor. Reviews of all inspection techniques are covered before embarking on the study of the most complex equipment and techniques. Coordinate measuring instruments, optical flats, X-ray inspection and electronic comparators are studied. Calibration of all types of measuring and inspection equipment is studied under classroom and laboratory — field trip — on the job conditions. The most complex systems and techniques are encountered and explored. MVC ONLY

MACHINE PARTS INSPECTION (MPI) 227 (3)
NON-DESTRUCTIVE TESTING (3 LEC.)

Prerequisite: Machine Parts Inspection 121, 220 and Quality Control Technology 122 or the consent of the instructor. An in-depth study is made of ultrasonic, radiographic, and magnetic particle techniques relating to industrial testing. An overview of all the related areas of non-destructive testing is included in the program. MVC ONLY

MACHINE PARTS INSPECTION (MPI) 230 (3)
INTRODUCTION TO STATISTICAL QUALITY CONTROL TECHNIQUES (3 LEC.)

Prerequisite: The consent of the instructor. This course provides a review of the basic application of statistical methods in a simplified form. Concepts of tolerances, acceptance sampling, standard sampling plans, control chart, and analysis of process variation are introduced. Only basic arithmetic is required. MVC ONLY

MACHINE PARTS INSPECTION (MPI) 237 (3)
GAGE CONTROL STANDARDIZATION AND PRECISION MEASUREMENT (2 LEC., 4 LAB.)

Prerequisite: The consent of the instructor. Inventory and gage security and calibration are stressed with emphasis on a general knowledge of all inspection equipment and a practical use of all items. Statistical treatment of data is introduced. MVC ONLY

MACHINE PARTS INSPECTION (MPI) 803 and 813 (3)
(See Cooperative Work Experience)

MACHINE SHOP (MS) 133 (5)
BASIC LATHE (1 LEC., 8 LAB.)

Practical experience is provided in the use of hand tools, layout, and hand threading. Various types of drill press work and engine lathe operations are introduced. Emphasis is on safety measures. The types and uses of machine oils, greases, coolants, and cutting oils are also included. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 134 (5)
BASIC MILLING MACHINE (1 LEC., 8 LAB.)

This course focuses on hand threading. Drill press work and milling machine operations are presented. Machine parts, cutters, and arbors are covered. Emphasis is on safety measures. The types and uses of machine oils, greases, coolants, and cutting oils are also included. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 135 (5)
INTERMEDIATE LATHE (1 LEC., 8 LAB.)

Prerequisite: Machine Shop 133. This course is the intermediate study of the engine lathe. Workpieces are more complicated and tolerances more exacting. Various machines and work-holding methods are used. Precision layout and measuring tools are introduced. Additional work in determining cutting speeds and feeds is also included. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 136 (5)
INTERMEDIATE MILLING MACHINE (1 LEC., 8 LAB.)

Prerequisite: Machine Shop 134. This course is the intermediate study of the milling machine. Workpieces are more complicated and tolerances more exacting. Various machines and work-holding methods are used. Precision layout and measuring tools are introduced. Additional work in determining cutting speeds and feeds is also included. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 151 (3)
BASIC MACHINE OPERATION FOR WELD TOOLING (1 LEC., 4 LAB.)

Simple weld tooling is studied. Shop safety is stressed. Actual weld fixture components and weld fixtures are made using engine lathes, the milling machine, and drill presses. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 233 (5)
ADVANCED LATHE (1 LEC., 8 LAB.)

This course is the advanced study of the engine lathe. Skill is developed in making open setups and in locating holes by means of layout and triangulation. Various attachments and accessories are used. Surface grinding and grinding wheel safety are introduced. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 234 (5)
ADVANCED MILLING MACHINE (1 LEC., 8 LAB.)

This course is the advanced study of the milling machine. Skill is developed in making open setups and in locating of holes by means of layout and triangulation. Various attachments and accessories are used. Surface grinding and grinding wheel safety are introduced. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 235 (5)
APPLIED LATHE (1 LEC., 8 LAB.)

Students are encouraged to take Machine Shop 236 concurrently with Machine Shop 235. In this course the student must independently carry out assignments on the lathe. Emphasis is on the interchangeability of workpieces, fits, and finishes. Initiative and ingenuity are encouraged. Tool and cutter grinding is introduced. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 236 (5)
APPLIED MILLING MACHINE (1 LEC., 8 LAB.)

The student is encouraged to take Machine Shop 235 concurrently with Machine Shop 236. In this course the student must independently carry out assignments on the milling machine. Emphasis is on the interchangeability of workpieces, fits, and finishes. Initiative and ingenuity are encouraged. Tool and cutter grinding is introduced. Laboratory fee. MVC ONLY

MACHINE SHOP (MS) 702 (2)
(See Cooperative Work Experience)

MACHINE SHOP (MS) 704 (4)
(See Cooperative Work Experience)

MAJOR APPLIANCE REPAIR (MAR) 200 (6)
DOMESTIC REFRIGERATORS (180 CONTACT HOURS)

This is a comprehensive course that incorporates Major Appliance Repair 201, 202, 203, 204 and 205. Students may enroll in the comprehensive course or in any of the inclusive courses. The mechanical and electrical systems of domestic refrigerators and freezers are presented. The diagnosis, service, repair, and replacement of parts are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 201 (1)
MOTORS AND MOTOR CIRCUITS
(30 CONTACT HOURS)

This course focuses on motors and motor circuits used in domestic refrigeration systems. Identification, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 202 (1)
DEFROST CIRCUITS AND
COMPONENTS (30 CONTACT HOURS)

This course focuses on manual defrost, off-cycle defrost, semi-automatic defrost and frost-free defrost systems. Identification, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 203 (2)
SEALED SYSTEM REPAIR AND COMPRESSOR
REPLACEMENT (60 CONTACT HOURS)

This course focuses on the detection and repair of leaks and on the replacement of compressors. Evacuation, charging, and performance evaluation of sealed systems are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 204 (1)
DOMESTIC ICE MAKERS (30 CONTACT HOURS)

This course focuses on flex tray and rigid mold domestic ice makers. Diagnosis, repair, and adjustment are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 205 (1)
TROUBLESHOOTING AND DIAGNOSIS,
DOMESTIC REFRIGERATORS AND FREEZERS
(30 CONTACT HOURS)

This course focuses on troubleshooting techniques for domestic refrigeration systems. The diagnosis of problems is included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 210 (6)
DOMESTIC DISHWASHERS, DISPOSERS, AND
TRASH COMPACTORS (180 CONTACT HOURS)

Prerequisite: Air Conditioning 400. This is a comprehensive course that incorporates Major Appliance Repair 211, 212, 213 and 214. Students may enroll in the comprehensive course or in any of the inclusive courses. Domestic dishwashers, disposers, and trash compactors are studied. The diagnosis, service, repair, and replacement of parts are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 211 (1)
ELECTRICAL SYSTEMS—
DISHWASHERS (30 CONTACT HOURS)

This course examines motors, water valves, heaters, timers, and dispensing electrical circuits. Diagnosis, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 212 (1)
MECHANICAL SYSTEMS AND
WASHABILITY (30 CONTACT HOURS)

This course examines water valve assemblies, pumps, water seals, and water/detergent relationships (washability). Adjustment, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 213 (2)
DISPOSERS AND TRASH
COMPACTORS (60 CONTACT HOURS)

This course examines the electrical and mechanical parts of domestic disposers and trash compactors. Diagnosis, service, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 214 (2)
TROUBLESHOOTING AND DIAGNOSIS—
DISHWASHERS, DISPOSERS, AND TRASH
COMPACTORS (60 CONTACT HOURS)

This course examines troubleshooting techniques for domestic dishwashers, disposers, and trash compactors. The diagnosis of problems is included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 220 (6)
DOMESTIC LAUNDRY
EQUIPMENT (180 CONTACT HOURS)

Prerequisite: Air Conditioning 400. This is a comprehensive course that incorporates Major Appliance Repair 221, 222, 223, 224, 225 and 226. Students may enroll in the comprehensive course or any of the inclusive courses. Domestic washers and dryers are covered. The diagnosis, service, repair, and replacement of parts are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 221 (1)
ELECTRICAL SYSTEMS AND MOTORS—
WASHERS (30 CONTACT HOURS)

This course is the specific study of washer motors and motor circuits, water valve circuits, timers, and dispensing circuits for bleach, softner, and detergent. Both diagnosis and repair are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 222 (1)
WATER SYSTEMS—
WASHERS (30 CONTACT HOURS)

This course is the specific study of washer water valve, pump, and inlet and drain assemblies. Diagnosis, repair, and adjustment are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 223 (1)
DRIVE SYSTEMS—
WASHERS (30 CONTACT HOURS)

This course is the specific study of washer clutch and belt assemblies, transmissions, drive shafts, and inner and outer tub assemblies. Diagnosis, adjustment, repair, and replacement are included. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 224 (1)
ELECTRICAL SYSTEMS AND MOTORS—
DRYERS (30 CONTACT HOURS)

This course is the specific study of dryer motors and motor circuits, heating elements, gas valve circuits, and timers. Diagnosis and repair are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 225 (1)
MECHANICAL SYSTEMS—
DRYERS (30 CONTACT HOURS)

This course is the specific study of dryer blowers, venting assemblies, belts and pulleys, bearings, and drum assemblies. Diagnosis, adjustment, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 226 (1)
TROUBLESHOOTING AND DIAGNOSIS—
WASHERS AND DRYERS (30 CONTACT HOURS)

This course is the specific study of troubleshooting techniques for domestic washers and dryers. The diagnosis of problems is included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 230 (6)
DOMESTIC COOKING
EQUIPMENT (180 CONTACT HOURS)

Prerequisite: Air Conditioning 400. This is a comprehensive course that incorporates Major Appliance Repair 231, 232, 233, 234 and 235. Students may enroll in the comprehensive course or in any of the inclusive courses. Domestic cooking equipment is studied. The diagnosis, service, repair, and replacement of parts are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 231 (1)
GAS COOKING EQUIPMENT
(30 CONTACT HOURS)

This course covers manual, hydraulic, and electrical controls of gas ranges and ovens. Burner adjustment is also covered. Diagnosis, service, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 232 (2)
ELECTRIC COOKING
EQUIPMENT (60 CONTACT HOURS)

This course covers heating elements, switches, thermostats, timers, cook tops and oven circuits of electric ranges and ovens. Diagnosis, wiring, repair, and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 233 (1)
SELF-CLEANING OVENS (30 CONTACT HOURS)

This course covers electronic and hydraulic controls and principles of self-cleaning ovens. Diagnosis, service, repair and replacement are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 234 (1)
MICROWAVE OVENS (30 CONTACT HOURS)

This course covers the principles of microwave cooking. Diagnosis and troubleshooting of magnetrons and associated microwave circuitry are included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 235 (1)
TROUBLESHOOTING AND DIAGNOSIS—
DOMESTIC COOKING EQUIPMENT
(30 CONTACT HOURS)

This course covers troubleshooting techniques for domestic cooking equipment. The diagnosis of problems is included. Laboratory fee. CVC ONLY

MAJOR APPLIANCE REPAIR
(MAR) 240 (3)
PROFESSIONAL SERVICE
SKILLS (48 CONTACT HOURS)

Professional skills for the service industry are emphasized. Topics include invoices, service records, maintenance agreements, customer relations, inventory, salaries, working conditions, and advancement opportunities. CVC, NLC ONLY

MANAGEMENT (MGT) 136 (3)
PRINCIPLES OF MANAGEMENT (3 LEC.)

The process of management is studied. The functions of planning, organizing, leading, and controlling are included. Particular emphasis is on policy formulation, decision-making processes, operating problems, communications theory, and motivation techniques.

MANAGEMENT (MGT) 137 (3)
PRINCIPLES OF RETAILING
(48 CONTACT HOURS)

The operation of the retail system of distribution is examined. Topics include consumer demand, requirements, computer use, store location and layout, and credit policies. Interrelationships are emphasized.

MANAGEMENT (MGT) 150 (4)
MANAGEMENT TRAINING (20 LAB.)

Prerequisite: Concurrent enrollment in approved Management Program. This course provides for supervised employment in the student's chosen field. It gives practical experience to students preparing for careers in business management.

MANAGEMENT (MGT) 151 (4)
MANAGEMENT TRAINING (20 LAB.)

Prerequisite: Concurrrent enrollment in approved Management Program. This course is a continuation of Management 150. It provides for supervised employment in the student's chosen field.

MANAGEMENT (MGT) 153 (3)
SMALL BUSINESS MANAGEMENT
(48 CONTACT HOURS)

The student will be studying the fundamental approaches to planning, establishing and operating a small business. The day-to-day operation of the business and reporting procedures will be studied as well as exploring the concepts of general management.

MANAGEMENT (MGT) 154 (2)
MANAGEMENT SEMINAR: ROLE OF SUPERVISION (32 CONTACT HOURS)

Prerequisites: Concurrent enrollment in Management 150 and preliminary interview by Management faculty. This is for students majoring in Management. Emphasis is on the development of management skills, goal-setting, planning, leadership, communication, and motivation as applied to the student's work experience.

MANAGEMENT (MGT) 155 (2)
MANAGEMENT SEMINAR: PERSONNEL MANAGEMENT (2 LEC.)

Prerequisites: Management 150 and 154 and concurrent enrollment in Management 151. The principles, policies, and practices of the personnel function as applied to the student's work experiences are studied.

MANAGEMENT (MGT) 157 (3)
SMALL BUSINESS BOOKKEEPING AND ACCOUNTING PRACTICES (3 LEC.)

This course focuses on basic bookkeeping and accounting techniques for the small business. The techniques are applied to the analysis and preparation of basic financial statements. NOT AT BHC

MANAGEMENT (MGT) 160 (3)
PRINCIPLES OF PURCHASING (3 LEC.)

An introduction to the purchasing function is provided. The course covers purchasing tasks and responsibilities, analytical techniques in buying, organizational interrelationships and coordination, measurement and control, and legal implications. Special emphasis is placed on the five tenets of buying: quality, quantity, time, price, and source. EFC, NLC ONLY

MANAGEMENT (MGT) 171 (3)
INTRODUCTION TO SUPERVISION (3 LEC.)

Prerequisite: Enrollment in Technical/Occupational program or the consent of the instructor. This course is a study of today's supervisors and their problems. The practical concepts of modern-day, first-line supervision are described. Emphasis is on the supervisor's major functions, such as facilitating relations with others, motivating, communicating, handling grievances, recruiting, counseling, and cost accounting.MVC, NLC, RLC ONLY

MANAGEMENT (MGT) 206 (3)
PRINCIPLES OF MARKETING (3 LEC.)

The scope and structure of marketing are examined. Marketing functions, consumer behavior, market research, sales forecasting, and relevant state and federal laws are analyzed.

MANAGEMENT (MGT) 210 (3)
SMALL BUSINESS CAPITALIZATION, ACQUISITION AND FINANCE (3 LEC.)

The student studies alternative strategies of financial planning, capitalization, profits, acquisition, ratio analysis, and other related financial operations required of small business owners. The preparation and presentation of a loan proposal are included. NOT AT BHC

MANAGEMENT (MGT) 211 (3)
SMALL BUSINESS OPERATIONS (3 LEC.)

Problems of daily operations of small business are introduced. Topics include compliance with regulations, personnel administration, accounts receivable management, and business insurance. NOT AT BHC

MANAGEMENT (MGT) 212 (1)
SPECIAL PROBLEMS IN BUSINESS (1 LEC.)

Each student will participate in the definition and analysis of current business problems. Special emphasis will be placed upon relevant problems and pragmatic solutions that integrate total knowledge of the business process in American society. This course may be repeated for credit up to a maximum of three hours credit.

MANAGEMENT (MGT) 220 (3)
MATERIALS MANAGEMENT (3 LEC.)

A study of the materials management concept, which includes the separate functions of purchasing, transportation, production, inventory control, warehousing, and trafficking is provided. Special emphasis is given to cost effectiveness, the materials cycle, contribution to organizational objectives, performance measurement, inventory cost trade-offs, and forecasting. EFC, NLC ONLY

MANAGEMENT (MGT) 224 (3)
QUALITY ASSURANCE (3 LEC.)

A study of the techniques, concepts, and systems utilized in controlling quality is included. Special emphasis is placed on sampling techniques (methodology and results), acceptance/rejection procedures, procurement quality assurance, tooling inspection, and quality program planning and maintenance. EFC, NLC ONLY

MANAGEMENT (MGT) 230 (3)
SALESMANSHIP (3 LEC.)

The selling of goods and ideas is the focus of this course. Buying motives, sales psychology, customer approach, and sales techniques are studied.

MANAGEMENT (MGT) 233 (3)
ADVERTISING AND SALES PROMOTION (3 LEC.)

This course introduces the principles, practices, and media of persuasive communication. Topics include buyer behavior, use of advertising media, and methods of stimulating salespeople and retailers. The management of promotion programs is covered, including goals, strategies, evaluation, and control of promotional activities.

MANAGEMENT (MGT) 242 (3)
PERSONNEL ADMINISTRATION (3 LEC.)

This course presents the fundamentals, theories, principles, and 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.

MANAGEMENT (MGT) 250 (4)
MANAGEMENT TRAINING (20 LAB.)

Prerequisites: Management 150 and Management 151; concurrent enrollment in Management 254. This course consists of supervised employment in the student's chosen field. It is intended to provide increased supervisory responsibility for students preparing for careers in business management.

MANAGEMENT (MGT) 251 (4)
MANAGEMENT TRAINING (20 LAB.)

Prerequisites: Management 150 and 151; concurrent enrollment in Management 255. This course continues Management 250. It is intended to provide supervised employment in the student's chosen field.

MANAGEMENT (MGT) 254 (2)
MANAGEMENT SEMINAR: ORGANIZATIONAL DEVELOPMENT (2 LEC.)

Prerequisites: Management 151 and Management 155; concurrent enrollment in Management 250. Organizational objectives and management of human resources are studied. The various approaches to organizational theory are applied to the student's work experience.

MANAGEMENT (MGT) 255 (2)
MANAGEMENT SEMINAR: BUSINESS STRATEGY, THE DECISION PROCESS AND PROBLEM SOLVING (2 LEC.)

Prerequisites: Management 250 and Management 254; concurrent enrollment in Management 251. Business strategy and the decision-making process are applied to the first-line supervisor and middle-management positions. Emphasis is on applying the student's course knowledge to work experience.

MANAGEMENT (MGT) 280 (3)
INDUSTRIAL MANAGEMENT (3 LEC.)

Prerequisite: Management 136. This course is an overview of the relationship of industrial functions. The philosophy and practices of management are included. Topics cover plant location and layout, process design, equipment selection, and methods analysis. Work measurement, materials control, production planning and control, quality control, cost control, and industrial relations are also presented.

MATHEMATICS

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

MATHEMATICS (MTH) 101 (3)
COLLEGE ALGEBRA (3 LEC.)

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

MATHEMATICS (MTH) 102 (3)
PLANE TRIGONOMETRY (3 LEC.)

Prerequisite: Mathematics 101 or equivalent. This course is a study of angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, logarithms, and complex numbers.

MATHEMATICS (MTH) 104 (5)
ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY I (5 LEC.)

Prerequisites: Two years of high school algebra or Developmental Mathematics 093. This course includes the concept of function, polynomials of one or more variables, arithmetic and geometric sequences, combinations and the binomial theorem, rational functions, exponential functions, logarithmic functions, trigonometric functions, complex numbers, vectors, functions of two variables and analytical geometry which includes conics, transformation of coordinates, polar coordinates, parametric equations and three dimensional space.

MATHEMATICS (MTH) 105 (5)
ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY II (5 LEC.)

Prerequisite: Mathematics 104. This course is a continuing study of the topics of Mathematics 104.
NOT AT ECC, NLC, RLC

MATHEMATICS (MTH) 106 (5)
ELEMENTARY FUNCTIONS AND COORDINATE GEOMETRY III (5 LEC.)

Prerequisites: Two years of high school algebra and one semester of trigonometry. This course is a study of the algebra of functions. It includes polynomial, rational, exponential, logarithmic and trigonometric functions, functions of two variables, complex numbers, vectors and analytic geometry which includes conics, transformation of coordinates, polar coordinates, and parametric equations.
NOT AT ECC

MATHEMATICS (MTH) 107 (3)
FUNDAMENTALS OF COMPUTING (3 LEC.)

Prerequisite: Two years high school algebra or Developmental Mathematics 093. This course is an introductory course designed primarily for students desiring credit toward a minor or major in computer science. It includes a study of algorithms and an introduction to a procedure-oriented language with general applications.

MATHEMATICS (MTH) 111 (3)
MATHEMATICS FOR BUSINESS AND ECONOMICS I (3 LEC.)

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

MATHEMATICS (MTH) 112 (3)
MATHEMATICS FOR BUSINESS AND ECONOMICS II (3 LEC.)

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

MATHEMATICS (MTH) 115 (3)
COLLEGE MATHEMATICS I (3 LEC.)

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

MATHEMATICS (MTH) 116 (3)
COLLEGE MATHEMATICS II (3 LEC.)

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

MATHEMATICS (MTH) 117 (3)
FUNDAMENTAL CONCEPTS OF MATHEMATICS FOR ELEMENTARY TEACHERS (3 LEC.)

This course includes the structure of the real number system, geometry, and mathematical analysis. Emphasis is on the development of mathematical reasoning needed for elementary teachers. NOT AT ECC

MATHEMATICS 121 (3)
ANALYTIC GEOMETRY (3 LEC.)

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

MATHEMATICS (MTH) 124 (5)
CALCULUS I (5 LEC.)

Prerequisite: Mathematics 105 or 106 or 121 or the equivalent. This course is a study of limits, continuity, derivatives, and integrals of algebraic and trancendental functions, with applications. NOT AT ECC

MATHEMATICS (MTH) 130 (3)
BUSINESS MATHEMATICS (3 LEC.)

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

MATHEMATICS (MTH) 139 (3)
APPLIED MATHEMATICS (3 LEC.)

Prerequisite: One year of high school algebra or Developmental Mathematics 091 or equivalent. An effort will be made to tailor this course fo fit the needs of the students enrolled in each semester. The course is a study of commercial, technical, and other applied uses of mathematics. NOT AT MVC

MATHEMATICS (MTH) 195 (3)
TECHNICAL MATHEMATICS (3 LEC.)

Prerequisite: One year of high school algebra or Development Mathematics 091 or the equivalent. This course is designed for technical students. It covers a general review of arithmetic, 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.

MATHEMATICS (MTH) 196 (3)
TECHNICAL MATHEMATICS (3 LEC.)

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

MATHEMATICS (MTH) 202 (3)
INTRODUCTORY STATISTICS (3 LEC.)

Prerequisite: Two years of high school algebra or consent of 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.

MATHEMATICS (MTH) 207 (3)
FORTRAN PROGRAMMING WITH APPLICATIONS (3 LEC.)

Prerequisites: Mathematics 107 or equivalent and Mathematics 101 or Mathematics 111 or Mathematics 104 or its equivalent. This course is a study of Fortran with emphasis on applications and programming of algorithmic language to solve numerical problems. Writing, testing, and executing typical Fortran programs are stressed. Emphasis is on applications for majors and minors in engineering, the sciences, mathematics, or business.

MATHEMATICS (MTH) 209 (3)
INTRODUCTORY APL PROGRAMMING (3 LEC.)

Prerequisites: Mathematics 101 or Mathematics 104 or Mathematics 111 and Mathematics 107 or consent of instructor. This course is a study of APL with emphasis on applications. It is designed for partial fulfillment of degree requirements in computer science. NOT AT ECC

MATHEMATICS (MTH) 221 (3)
LINEAR ALGEBRA (3 LEC.)

Prerequisite: Mathematics 126 or equivalent. This course is a study of matrices, linear equations, dot products, cross products, geometrical vectors, determinants, n-dimensional space, and linear transformation. NOT AT ECC, MVC

MATHEMATICS (MTH) 225 (4)
CALCULUS II (4 LEC.)

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

MATHEMATICS (MTH) 226 (3)
CALCULUS III (3 LEC.)

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

MATHEMATICS (MTH) 230 (3)
DIFFERENTIAL EQUATIONS (3 LEC.)

Prerequisite: Mathematics 227 or consent of 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. NOT AT ECC

MEDICAL ASSISTING TECHNOLOGY (MA) 150 (1)
ORIENTATION TO MEDICAL OFFICE CAREERS (1 LEC.)

Prerequisite: Admission to the Medical Assisting Technology Program or Medical Transcription Program. This course introduces the medical office and the roles of the medical assistant and medical transcriptionist. The professional and interpersonal relationships of the medical office worker with office personnel, the patient, the physician, and others are studied. The history of medicine is introduced, including the great men and women of medicine and their discoveries. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 151 (4)
MEDICAL TERMINOLOGY (4 LEC.)

Prerequisite: Admission to the Medical Assisting Technology Program or Medical Transcription Program with concurrent enrollment in Biology 123 or the consent of 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 definition. Exercises in the use of the medical dictionary are also included. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 152 (2)
MEDICAL LAW AND ETHICS (2 LEC.)

Prerequisite: Admission to the Medical Assisting Technology Program or Medical Transcription Program. The principles of medical ethics and ethical behavior of the physician and patient are introduced. Topics include contracts, professional liability, malpractice, and the medical practice acts. The legal relationship of the medical assistant-transcriptionist is examined in regard to the physician's legal responsibilities. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 153 (3)
MEDICAL OFFICE MICROBIOLOGY AND STERILIZATION PROCEDURES (2 LEC., 2 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program. This course is a study of fundamental microbiology and methods of sanitation, asepsis, and sterilization. The operation of sterilization equipment, application of the principles of asepsis in handwashing, dressings, and creating and maintaining a sterile field are included. The proper disposal of contaminated materials is demonstrated. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 160 (4)
MEDICAL TRANSCRIPTION (2 LEC., 6 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program or Medical Transcription Program. Completion of Medical Assisting 151 and Business 174 or the equivalent with a GPA of 2.0 or better or the consent of the instructor. Medical transcription is presented. Speed and accuracy in typing, use of transcribing equipment, and medical-surgical terminology are all included. Practice in completing medical forms, transcribing medical-surgical reports, and handling medical correspondence is emphasized. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 161 (3)
MEDICAL OFFICE — ADMINISTRATIVE AND MANAGEMENT PROCEDURES (3 LEC.)

Prerequisite: Admission to the Medical Assisting Technology Program or Medical Transcription Program. This course covers the principles of medical office communications. Medical recordkeeping, types of records, reports, and computerized and statistical procedures are introduced. The function of the hospital medical record department in relation to the medical office is also introduced. The fundamentals of a medical office, care of equipment, ordering of office supplies, and office housekeeping are covered. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 162 (3)
MEDICAL OFFICE BOOKKEEPING AND INSURANCE PROCEDURES (3 LEC.)

Prerequisite: Admission to the Medical Assisting Technology Program. The fundamentals of medical office bookkeeping and financial record-keeping are studied. The pegboard system is covered and computerized accounting is introduced. Appraisal of health insurance plans is covered, including a study of benefits and claims procedures with an emphasis on the completion of claim forms. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 163 (3)
MEDICAL OFFICE CLINICAL MEDICAL ASSISTING PROCEDURES (2 LEC., 2 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program. The role of the clinical medical assistant is introduced in lectures and in laboratory experiences. Topics include techniques in the examining room, patient handling and preparation, taking and recording vital signs, and assisting the physician with examination, treatments, minor surgery, and office emergencies. The ordering, storing and inventory of medical supplies and care of equipment are also included. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 164 (3)
MEDICAL OFFICE PHARMACOLOGY AND DRUG ADMINISTRATION (2 LEC., 2 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program. This course enables students to identify basic drugs, their use and effect on the body, and the calculation of dosage and solutions. The definition and use of correct abbreviations and terminology are covered. Ways to identify medications regulated by the Bureau of Narcotics and Dangerous Drugs are included and the records required on them are explained. Also included are the ordering, storage inventory, and disposal of drugs. Methods of drug administration are identified, including



techniques of giving injections and selecting of sites. Laboratory fee. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 170 (3)
MEDICAL OFFICE X-RAY ORIENTATION AND ELECTROMEDICAL INSTRUMENTATION (5 LEC., 5 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program. This course prepares students to communicate instructions to the patient for proper preparation for X-ray examinations. The identification of safety hazards and precautions related to X-ray equipment is included. The handling and storage of X-rays are demonstrated. Methods of electrocardiography are explained, including operation of the machine, specific techniques and mounting the tracing. The operation and care of other electromedical instruments, ultrasound, and ultraviolet light are also covered. Laboratory fee.ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 171 (3)
MEDICAL OFFICE LABORATORY PROCEDURES (5 LEC., 5 LAB.)

Prerequisite: Admission to the Medical Assisting Technology Program. The purpose , techniques, and recording of basic laboratory procedures commonly performed in a physician's office are covered in lectures and laboratory sessions. Included are urinalysis, blood counts, gram stains, sedimentation rates, and pregnancy tests. The collection, preparation, and labeling of specimens are also covered. Clinical laboratory reports are explained. The assistance of patients by giving the proper instructions for their preparation for clinical lab tests is described. Laboratory fee. ECC ONLY

MEDICAL ASSISTING TECHNOLOGY (MA) 172 (6)
MEDICAL ASSISTING EXTERNSHIP (2 LEC., 38 LAB.)

Prerequisite: Completion of all Medical Assisting Technology courses with an overall GPA of 2.0 or above. This course provides supervised work experience in a private medical office, clinic or hospital. Classroom reports and critique are also included. The student is assigned regular duties and is responsible to the supervisor in charge. The work is coordinated by a member of the Medical Assisting faculty. A minimum of 180 hours is required in the clinical setting for externship. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 133 (4)
HEMATOLOGY (3 LEC., 4 LAB.)

Prerequisite: Acceptance into the Medical Laboratory Technician Program with an ACT composite score of 18 and concurrent enrollment in Medical Laboratory Technology 135. The theory and basic techniques used in the hematological examination of blood are presented. Laboratory fee. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 135 (3)
URINALYSIS (2 LEC., 4 LAB.)

Prerequisite: Acceptance into the Medical Laboratory Technician Program with an ACT composite score of 18 and a math score of 18 and concurrent enrollment in Medical Laboratory Technology 133. This course is an orientation to the medical laboratory and a study of the theory and laboratory procedures used in the analysis of urine. Laboratory fee. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 138 (4)
IMMUNOLOGY (3 LEC., 4 LAB.)

Prerequisite: "C" average in Medical Laboratory Technology 133 and 135. The theory and principles of immunology are presented. Laboratory procedures used in the serological and immunohematological examination of blood and serum are considered. Laboratory fee. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 139 (8)
CLINICAL PRACTICE I (2 LEC., 33 LAB.)

Prerequisite: "C" average in Medical Laboratory Technology 138 and an overall "C" average in non-technical course work. This course provides supervised clinical practice in hematology, serology, blood banking, and urinalysis. The student is assigned to a clinical laboratory. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 229 (4)
MEDICAL MICROBIOLOGY I (3 LEC., 4 LAB.)

Prerequisite: Completion of the first year of the Medical Laboratory Technician Program. The fundamentals of microbial life are studied. Methods and procedures used in diagnostic microbiology are covered. Included are the principles of aseptic technique, susceptibility testing of bacteria, quantification of bacteria in body fluids, and the isolation and identification of selected bacteria. The normal body flora are discussed, and the relationship of these bacteria to disease in humans is emphasized. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 231 (4)
CLINICAL CHEMISTRY (3 LEC., 4 LAB.)

Prerequisite: "C" average 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. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 236 (4)
MEDICAL MICROBIOLOGY II (3 LEC., 4 LAB.)

Prerequisite: Medical Lab Technology 229. This course is a continuation of Medical Lab Technology 229. It includes the study of the isolation and identification procedures for selected bacteria, fungi and parasites. ECC ONLY

MEDICAL LAB TECHNOLOGY (MLT) 238 (8)
CLINICAL PRACTICE II (2 LEC., 33 LAB.)

Prerequisite: "C" average in Medical Lab Technology 229 and 231 with an overall "C" average in non-technical course work. This course provides supervised experience in diagnostic microbiology and clinical chemistry. The student is assigned to a clinical laboratory. ECC ONLY

MOTORCYCLE MECHANICS (MM) 104 (3)
MOTORCYCLE SERVICE PRINCIPLES (90 CONTACT HRS.)

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. CVC ONLY

MOTORCYCLE MECHANICS (MM) 105 (3)
MOTORCYCLE TUNE-UP (90 CONTACT HRS.)

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. CVC ONLY

MOTORCYCLE MECHANICS (MM) 106 (3)
MOTORCYCLE TWO STROKE ENGINE/ TRANSMISSION (90 CONTACT HRS.)

This course includes overhaul procedures for two stroke motorcycle engines and transmissions. Laboratory fee. CVC ONLY

MOTORCYCLE MECHANICS (MM) 107 (3)
MOTORCYCLE FOUR STROKE ENGINE/ TRANSMISSION (90 CONTACT HRS.)

This course includes overhaul procedures for four stroke motorcycle engines and transmissions. Laboratory fee. CVC ONLY

MOTORCYCLE MECHANICS (MM) 108 (3)
MOTORCYCLE ELECTRICAL SYSTEMS (90 CONTACT HRS.)

This course includes motorcycle ignition and charging systems. Also included are the theory of operation and troubleshooting procedures for motorcycle ignition, charging systems, and accessories. Laboratory fee. CVC ONLY

MOTORCYCLE MECHANICS (MM) 109 (3)
MOTORCYCLE CHASSIS AND DRIVE SYSTEMS (90 CONTACT HRS.)

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. CVC ONLY

MOTORCYCLE MECHANICS (MM) 703 (3)
(See Cooperative Work Experience)

CVC ONLY

MOTORCYCLE MECHANICS (MM) 704 (4)
(See Cooperative Work Experience)

CVC ONLY

MUSIC (MUS) 101 (4)
FRESHMAN THEORY (3 LEC., 3 LAB.)

Musicianship skills are developed. Emphasis is on tonal and rhythmic perception and articulation. The essential elements of music are presented, and sight-singing, keyboard, and notation are introduced. NOT AT ECC

MUSIC (MUS) 102 (4)
FRESHMAN THEORY (3 LEC., 3 LAB.)

Prerequisite: Music 101 or the consent of the instructor. This course introduces part-writing and harmonization with triads and their inversions. Also included are the classification of chords, seventh chords, sight-singing, dictation, and keyboard harmony.

MUSIC (MUS) 103 (1)
GUITAR ENSEMBLE (3 LAB.)

Music composed and arranged for a guitar ensemble is performed. Works for a guitar and a different instrument or for guitar and a voice are also included. This course may be repeated for credit. NOT AT BHC

MUSIC (MUS) 104 (3)
MUSIC APPRECIATION (3 LEC.)

The basic elements of music are surveyed and examined in the music literature of western civiliazation, particularly from the Baroque Period to the present. Cultural influences on the music of each era are observed.

MUSIC (MUS) 105 (1)
ITALIAN DICTION (2 LAB.)

The phonetic sounds of the Italian language are studied. Included is selected vocabulary. This course is primarily for voice majors.
NOT AT MVC, NLC

MUSIC (MUS) 106 (1)
FRENCH DICTION (2 LAB.)

The phonetic sounds of the French language are studied. Included is selected vocabulary. This course is primarily for voice majors.
NOT AT BHC, MVC, NLC

MUSIC (MUS) 107 (1)
GERMAN DICTION (2 LAB.)

The phonetic sounds of the German language are studied. Included is selected vocabulary. This course is primarily for voice majors.
NOT AT BHC, MVC, NLC

MUSIC (MUS) 110 (3)
MUSIC LITERATURE (3 LEC.)

The music of recognized composers in the major periods of music history is examined. Topics include the characteristics of sound, elements of music, performance media, and musical texture. Emphasis is on the music of the late Gothic, Renaissance and Baroque eras.

MUSIC (MUS) 111 (3)
MUSIC LITERATURE (3 LEC.)

Prerequisite: Music 110. This course is a continuation of Music 110. The compositional procedures and forms used by composers are studied. Emphasis is on the Classical, Romantic, and Modern periods.

MUSIC (MUS) 112 (3)
GUITAR LITERATURE AND MATERIALS (3 LEC.)

The body of music for the guitar is surveyed. Emphasis is on the repertoire of instruments in the guitar family, such as the lute. Transcription and arranging are studied as well as the selection of a program for public performance. NOT AT BHC, ECC

MUSIC (MUS) 113 (3)
FOUNDATIONS OF MUSIC I (3 LEC.)

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

MUSIC (MUS) 114 (3)
FOUNDATIONS IN MUSIC II (3 LEC.)

Prerequisite: Music 113. This course prepares students with limited music training for Music 101 and increases their general music understanding. Emphasis is on rhythmic and melodic training, chord functions, melody, textures, and basic analysis of music.

MUSIC (MUS) 115 (2)
JAZZ IMPROVISATION (1 LEC., 2 LAB.)

The art of improvisation is introduced. Basic materials, aural training, analysis, and common styles are presented. This course may be repeated for credit.

MUSIC (MUS) 117 (1)
PIANO CLASS I (2 LAB.)

This course is primarily for students with no knowledge of piano skills. It develops basic musicianship and piano skills. This course may be repeated for credit.

MUSIC (MUS) 118 (1)
PIANO CLASS II (2 LAB.)

The study of piano is continued. Included are techniques, skills, harmonization, transposition, improvisation, accompanying, sight-reading, and performing various styles of repertoire. This course may be repeated for credit.

MUSIC (MUS) 119 (1)
GUITAR CLASS I (2 LAB.)

This course is primarily for students with limited knowledge in reading music or playing the guitar. It develops basic guitar skills. This course may be repeated for credit.

MUSIC (MUS) 120 (1)
GUITAR CLASS II (2 LAB.)

Prerequisite Music 119 or the equivalent. This course is a continuation of Music 119. Emphasis is on classical guitar techniques and music reading skills. This course may be repeated for credit.

MUSIC (MUS) 121-143 (1)
APPLIED MUSIC-MINOR (1 LEC.)

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

MUSIC (MUS) 150 (1)
CHORUS (3 LAB.)

Prerequisite: Consent of 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.

MUSIC (MUS) 151 (1)
VOICE CLASS I (2 LAB.)

This course is for non-voice majors. It presents the principles of breathing, voice production, tone control, enunciation, and phrasing in two group lessons a week. This course may be repeated for credit.

MUSIC (MUS) 152 (1)
VOICE CLASS II (2 LAB.)

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.

MUSIC (MUS) 155 (1)
VOCAL ENSEMBLE (3 LAB.)

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

MUSIC (MUS) 156 (1)
MADRIGAL SINGERS (3 LAB.)

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.
NOT AT EFC, ECC

MUSIC (MUS) 160 (1)
BAND (3 LAB.)

Prerequisite: The consent of the instructor is required for non-wind instrument majors. The band studies and performs a wide variety of music in all areas of band literature. This course may be repeated for credit.
NOT AT ECC

MUSIC (MUS) 170 (1)
ORCHESTRA (3 LAB.)

Experience is provided in performing and reading orchestral literature and in participating in the college orchestra. This course may be repeated for credit. NOT AT EFC, ECC

MUSIC (MUS) 171 (1)
WOODWIND ENSEMBLE (3 LAB.)

A group of woodwind instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 172 (1)
BRASS ENSEMBLE (3 LAB.)

A group of brass instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit.

MUSIC (MUS) 173 (1)
PERCUSSION ENSEMBLE (3 LAB.)

A group of percussion instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeatd for credit.

MUSIC (MUS) 174 (1)
KEYBOARD ENSEMBLE (3 LAB.)

A group of keyboard instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. NOT AT ECC

MUSIC (MUS) 175 (1)
STRING ENSEMBLE (3 LAB.)

A group of string instrumentalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. NOT AT EFC, ECC

MUSIC (MUS) 176 (1)
SYMPHONIC WIND ENSEMBLE (3 LAB.)

In the symphonic wind ensemble students study and perform stylistic literature of all periods. This course may be repeated for credit. NOT AT BHC, EFC, ECC.

MUSIC (MUS) 177 (1)
CHAMBER ENSEMBLE (3 LAB.)

A group of chamber instrumentalists or vocalists read and perform literature for small ensembles. Membership is by audition with the appropriate director. This course may be repeated for credit. NOT AT BHC, ECC

MUSIC (MUS) 181 (1)
LAB BAND (3 LAB.)

Prerequisite: The consent of the instructor. In the Lab Band students study and perform all forms of commercial music, such as jazz, pop, avant-garde, and soul. Student arranging, composing, and conducting is encouraged. This course may be repeated for credit. NOT AT EFC, RLC

MUSIC (MUS) 185 (1)
STAGE BAND (3 LAB.)

Prerequisite: The consent of the instructor. In the Stage Band students study and perform a wide variety of music. Emphasis is on the jazz-oriented, big-band styles of the 1960's. This may be repeated for credit. NOT AT ECC

MUSIC (MUS) 190 (2)
SURVEY OF RECORDING (2 LEC.)

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. CVC ONLY

MUSIC (MUS) 191 (1)
SURVEY OF RECORDING LABORATORY (48 CONTACT HRS.)

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. Laboratory fee. CVC ONLY

MUSIC (MUS) 192 (3)
MUSIC IN AMERICA (3 LEC.)

American music and musicians from early times to the present are surveyed. Various styles and periods are covered. Religious, folk, jazz, rock, musical theatre, and contemporary developments are included. CVC ONLY

MUSIC (MUS) 193 (3)
IMPROVISATION (3 LEC.)

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 his/her major instrument. The vocalist uses scat singing techniques. Analysis of transcribed solos and student transcriptions are included. CVC ONLY

MUSIC (MUS) 194 (3)
JAZZ WORKSHOP (3 LEC.)

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 artist who work and perform with the group periodically. CVC ONLY

MUSIC (MUS) 195 (2)
INTRODUCTION TO SYNTHESIZER (2 LEC.)

The elements of electronically produced music are studied. Emphasis is on the musical aspects of synthesized sound. Topics include theory, basic waveforms, frequency and frequency modulation, amplitude modulation, envelope generators, filters, white noise, pink noise, and patch diagramming. CVC ONLY

MUSIC (MUS) 196 (3)
BUSINESS OF MUSIC (3 LEC.)

The world of the music industry is presented. Panels, guest artists, and consultants discuss careers in the recording and performing fields and retail music business. Publishing, copyrights and other legalities, agents, managers, showmanship, and conducting techniques necessary for small and large ensemble work are included. CVC ONLY

MUSIC (MUS) 197 (2)
STUDIO TECHNOLOGY (2 LEC.)

Prerequisite: Music 190 and Music 191 or the consent of the instructor. This course is an intensive study of the theory of studio, microphone, and multi-track mixdown techniques. CVC ONLY

MUSIC (MUS) 198 (1)
STUDIO TECHNOLOGY LABORATORY (48 CONTACT HRS.)

Prerequisite: Completion of or concurrent enrollment in Music 197 or the consent of 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. CVC ONLY

MUSIC (MUS) 199 (1)
RECITAL (2 LAB.)

Students of private lessons perform before an audience one period each week. Credit for this course does not apply to the Associate Degree. This course may be repeated for credit.

MUSIC (MUS) 201 (4)
SOPHOMORE THEORY (3 LEC., 3 LAB.)

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

MUSIC (MUS) 202 (4)
SOPHOMORE THEORY (3 LEC., 3 LAB.)

Prerequisite: Music 201 or the equivalent or the consent of the instructor. This course is a continuation of Music 201. Topics include the sonata-allegro form and the ninth, eleventh, and thirteenth chords. New key schemes, impressionism, melody, harmony, tonality and formal processes of 20th century music are also included. Sight-singing, keyboard harmony, and ear training are developed further. NOT AT ECC

MUSIC (MUS) 203 (3)
COMPOSITION (3 LEC.)

Prerequisite: Music 101 and 102 or the consent of the instructor. This course covers composing in small forms for simple media in both traditional styles and styles of the student's choice. The course may be repeated for credit. NOT AT ECC

MUSIC (MUS) 204 (2)
GUITAR PEDAGOGY (2 LEC.)

Guitar method books are surveyed. Emphasis is on the strengths and weaknesses of each method. Structuring lessons and optimizing each individual teacher-student relationship are also discussed. NOT AT ECC

MUSIC (MUS) 217 (1)
PIANO CLASS III (2 LAB.)

Prerequisite: Music 118 or the equivalent. This course is a continuation of functional keyboard skills, including harmonization, sightreading, accompanying styles, improvisation, and technical exercises. It is designed for the music major preparing for the piano proficiency exam, but is also open to any interested student. It is recommended that music majors also study privately.

MUSIC (MUS) 218 (1)
PIANO CLASS IV (2 LAB.)

Prerequisite: Music 217 or the equivalent. This course is a continuation of functional keyboard skills in Music 217 with greater emphasis on advanced harmonization and appropriate technical skills. It is designed as a preparation for the piano proficiency exam for the music major, but is also open to any interested student. It is recommended that music majors also study privately.

MUSIC (MUS) 221-243 (2)
APPLIED MUSIC-CONCENTRATION (1 LEC.)

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

MUSIC (MUS) 251-270 (3)
APPLIED MUSIC-MAJOR (1 LEC.)

This course is primarily for music performance majors and is open to students enrolled in music theory, ensembles, and other music major and minor courses. It provides private instruction in the area of the student's major instrument, and consists of two half-hour lessons a week. Fee required. NOT AT BHC

MUSIC (MUS) 292 (3)
ARRANGING/ORCHESTRATION (3 LEC.)

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. CVC ONLY

MUSIC (MUS) 293 (3)
INDEPENDENT STUDY (3 LEC.)

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. CVC ONLY

MUSIC (MUS) 295 (2)
ADVANCED SYNTHESIZER TECHNIQUES (2 LEC.)

This course is limited to students who display promise in synthesizer composition or performance. Two major works are composed for the synthesizer and one for the synthesizer and traditional media. CVC ONLY

MUSIC (MUS) 296 (3)
RECORDING STUDIO PRACTICES (2 LEC., 3 LAB.)

Prerequisite: 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. CVC ONLY

MUSIC (MUS) 297 (3)
STUDIO PRODUCTION (2 LEC., 3 LAB.)

Prerequisite: Music 296. In this course students produce, engineer, mix, set-up, and perform in actual recording sessions. Samples for portfolios may be acquired. Laboratory fee. CVC ONLY

MUSIC (MUS) 803, 813 (3)
(See Cooperative Work Experience)

MUSIC (MUS) 804, 814 (4)
(See Cooperative Work Experience)

NURSING (NUR) 141 (7)
NURSING I (4 LEC., 11 LAB.)

Prerequisites: Admission to the program. "C" grade in lab science elective. "C" grade in Biology 120 or concurrent enrollment. Credit or concurrent enrollment in Psychology 105 and English 101. Nursing I is the basic course in nursing which serves as a foundation on which the other nursing courses build and expand. Included are an introduction to nursing as a profession, the nursing process, communication, and basic technical skills. Based on an integrated approach, concepts of health, illness, growth and development, basic human needs, the family, stress, and loss are explored in all age groups. Selected clinical experiences enable the student to begin to assess patients and plan, implement, and evaluate nursing care for all age groups. A system of measurement competency is a required component of the pharamacology introduction. Laboratory fee. ECC ONLY

NURSING (NUR) 142 (7)
NURSING II (4 LEC., 11 LAB.)

Prerequisites: "C" grade in Nursing 141, Biology 120, and lab science elective. "C" grade in Biology 121 or concurrent enrollment. Credit or concurrent enrollment in Psychology 201 and English 102. Nursing II focuses on the application of the basic principles, concepts, and skills from Nursing I. Included are medication administration and the concepts of pain and health teaching. Psychological and physiological stress is further explored with discussion of maladaptive behavior, adaptation to pregnancy, birth and patients experiencing surgery. Problems of cell proliferation and impaired nutrition affecting all age groups are presented and discussed. Selected clinical experiences continue to focus on the nursing process in caring for patients of all age groups. An application of pharmacology dosage and solutions competency are required components of this course. Laboratory fee. ECC ONLY

NURSING (NUR) 240 (4)
NURSING III (7 LEC., 15 LAB.)

Prerequisites: "C" grade in Nursing 141, 142, lab science elective, and Biology 120 and 121. Nursing III focuses on the care of postpartum and newborn patients, patients with problems of immunological/inflammatory response, and patients exhibiting psychotic behavior. Emphasis is on the application of the nursing process. Selected clinical experiences include a psychiatric rotation. Laboratory fee. ECC ONLY

NURSING (NUR) 250 (9)
NURSING IV (5 LEC., 12 LAB.)

Prerequisites: "C" grade in Nursing 141, 142, 240, lab science elective and Biology 120 and 121. Psychology 105 and 201 and English 101 and 102. Credit or concurrent enrollment in Sociology 101. Nursing IV emphasizes a conceptual approach to care of patients in all age groups with more complex health care problems. Discussion includes rehabilitation, problems of immobility, moderately impaired oxygen exchange, inflammation, 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.. ECC ONLY

NURSING (NUR) 255 (9)
NURSING V (5 LEC., 12 LAB.)

Prerequisites: "C" grade in Nursing 141, 142, 240, 250, lab science elective and Biology 120 and 121. Psychology 105 and 201, English 101 and 102, and Sociology 101. Credit or concurrent enrollment in elective above 100 level. Nursing V is a continuation of Nursing IV with emphasis on increasingly complex situations. Concepts related to problems of sensory deprivation and overload, severely impaired oxygen exchange, severe fluid and electrolyte imbalance and crisis are discussed as related to the nursing process. In addition, the role transition process is explored. Selected clinical experiences focus on continued application of the nursing process to a group of patients, stressing independent decision making. A pharmacology application competency is a required component of the course. Laboratory fee. ECC ONLY

OFFICE CAREERS (INS) 108 (3)
PERSONAL LINES—AUTO CPL/PERSONAL UMBRELLA (3 LEC.)

The principles of personal auto insurance and personal umbrella insurance are studied, including the general background of and need for these types of insurance. Terminology and types of coverage are presented. Special emphasis is on rating, writing, billing, and servicing automobile insurance and personal umbrella insurance. Students develop skills in selling policies and processing claims. All forms used are those prescribed for and approved by the state of Texas. This is a fundamental course for underwriters, agents, claims adjustors, and clerical and technical personnel. RLC ONLY

OFFICE CAREERS (INS) 109 (3)
PERSONAL LINES—HOMEOWNERS/FIRE/MARINE (3 LEC.)

This course is an introduction to the history of and need for homeowners, fire, and marine insurance. Terminology is studied and the fundamentals of coverage are included for all five of the homeowners' forms as well as for fire and marine insurance. Emphasis is on rating, writing, billing, and servicing homeowners, fire, and marine insurance. Students develop skills in selling policies and processing claims. All forms used are those prescribed for and approved by the state of Texas. This is a fundamental course for underwriters, agents, claims adjustors, and clerical and technical personnel. RLC ONLY

OFFICE CAREERS (INS) 110 (3)
COMMERCIAL CASUALTY—WORKER'S COMPENSATION/ COMMERCIAL AUTO (3 LEC.)

Prerequisites: Office Careers 108 and 109 or the consent of the instructor. The basic facts of casualty insurance (worker's compensation and commercial auto) are introduced, including its development, policy structures, and provisions of the contracts. Coverage of various worker's compensation laws is presented as well as analysis of policy and rates. The step-by-step procedure for classifying and rating the coverages is studied. All forms used are those prescribed for and approved by the state of Texas. This is a fundamental course for underwriters, agents, claims adjustors, and clerical and technical personnel. RLC ONLY

OFFICE CAREERS (INS) 111 (3)
TMP/COMMERCIAL
FIRE/GENERAL LIABILITY (3 LEC.)

Prerequisites: Office Careers 108 and 109 or the consent of the instructor. This course is a study of the principles of TMP, including the history of and need for TMP. Emphasis is on commercial fire and general liability insurance. Terminology and basic coverages are introduced. Multiple-line policies available for commercial enterprises are analyzed, including forms, rating methods, and trends. The methods of determining fire insurance rates for commercial properties and of eliminating or reducing specific charges are presented. The effect on rates of construction, protective devices, exposures, etc., are also covered. The general liability line is examined, including manufacturers and contractors; owners, landlords, and tenants; and others. The scope of the coverage, exclusions, and classification procedures are studied. All forms used are those prescribed for and approved by the state of Texas. This is a fundamental course for underwriters, agents, and clerical and technical personnel. RLC ONLY

OFFICE CAREERS (INS) 209 (3)
PRINCIPLES OF INSURANCE (3 LEC.)

This course surveys the insurance needs of business and industry. Life, property, and casualty insurance are covered. Emphasis is on a systematic approach to risk management. Topics include credit life insurance, key-person insurance, worker's compensation, and title insurance. Also covered is insurance for property, auto, accounts receivable for property, auto accounts receivable, business interruption, and accident and health, business liability, and bonding.
NLC, RLC ONLY

OFFICE CAREERS (OFC) 103 (4)
SPEEDWRITING THEORY (3 LEC., 2 LAB.)

Prerequisite: Credit or concurrent enrollment in Office Careers 172 or one year of Typing. The principles of speedwriting are introduced. Included is the development of the ability to read, write and transcribe speedwriting notes. Basic spelling, grammar and punctuation rules are reviewed.
BHC, CVC, MVC ONLY

OFFICE CAREERS (OFC) 104 (3)
SPEEDWRITING DICTATION
AND TRANSCRIPTION (3 LEC.)

Prerequisite: Office Career 103, Office Careers 172, or one year of Typing. 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.
BHC, CVC MVC ONLY

OFFICE CAREERS (OFC) 140 (3)
EDUCATIONAL PROCESSES (3 LEC.)

This course surveys educational processes from pre-school through college. Both public and private education is included. Emphasis is on the contribution and influence made by education on the culture and the economy. RLC ONLY

OFFICE CAREERS (OFC) 141 (3)
CURRENT PRACTICAL PROBLEMS (3 LEC.)

School organization, procedures, and staff utilization are examined. The solution of problems is emphasized.
RLC ONLY

OFFICE CAREERS (OFC) 143 (1)
CONTEMPORARY TOPICS IN OFFICE CAREERS (1 LEC.)

Prerequisite: The consent of the instructor. This course emphasizes current topics of interest in office career fields. Realistic solutions to problems relevant to the needs of industry are presented. This course may be repeated for credit with different emphasis up to six hours.

OFFICE CAREERS (OFC) 159 (4)
BEGINNING SHORTHAND (3 LEC., 2 LAB.)

Prerequisite: Credit or concurrent enrollment in Office Careers 172 or one year of typing in high school. The principles of Gregg shorthand (Diamond Jubilee Series) 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.

OFFICE CAREERS (OFC) 160 (3)
OFFICE MACHINES (3 LEC.)

This course focuses on the development of skills in using office machines. Adding machines, printing calculators, electronic display calculators, and electronic printing calculators are included. Emphasis is on developing the touch system for both speed and accuracy.

OFFICE CAREERS (OFC) 162 (3)
OFFICE PROCEDURES (3 LEC.)

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

OFFICE CAREERS (OFC) 165 (3)
INTRODUCTION TO WORD PROCESSING (3 LEC.)

Prerequisite: Office Careers 174 or concurrent enrollment in Office Careers 174. This course introduces word processing and describes its effect on traditional office operations. Word processing terminology and concepts for organizing word processing centers are studied. Training in the transcription and distribution of business communications is provided. English skills and mechanics are reinforced.

OFFICE CAREERS (OFC) 166 (4)
INTERMEDIATE SHORTHAND (3 LEC., 2 LAB.)

(Formerly Business 164) Prerequisite: Office Careers 159 or one year of shorthand in high school, Office Careers 172 or one year of typing in high school. The principles of Gregg Shorthand are studied. Emphasis is on increased speed dictation, accuracy in typing from shorthand notes, and beginning techniques of transcription skills. Also included are oral reading of shorthand outlines, speed building dictation, and producing mailable copy. Special attention is given to English fundamentals, such as grammar and punctuation.

OFFICE CAREERS (OFC) 167 (3)
LEGAL TERMINOLOGY AND TRANSCRIPTION (3 LEC.)

Prerequisite: Completion of Office Careers 174 or typing speed of 50 words per minute; completion of Office Careers 165. 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. CVC, NLC ONLY

OFFICE CAREERS (OFC) 172 (3)
BEGINNING TYPING (2 LEC., 3 LAB.)

This course is for students with no previous training in typewriting. Fundamental techniques in typewriting are developed. The skills of typing manuscripts, business letters, and tabulations are introduced.

OFFICE CAREERS (OFC) 174 (2)
INTERMEDIATE TYPING (1 LEC., 2 LAB.)

Prerequisite: Office Careers 172 or one year of typing in high school. Typing techniques are developed further. Emphasis is on problem solving. Increasing speed and accuracy in typing business forms, correspondence, and manuscripts is also stressed.

OFFICE CAREERS (OFC) 176 (1)
BEGINNING TYPING I (1 LEC., 1 LAB.)

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.
ECC, NLC ONLY

OFFICE CAREERS (OFC) 177 (1)
BEGINNING TYPING II (1 LEC.)
Prerequisite: Office Careers 176. Practical techniques for business correspondence are developed. Memorandums, personal letters, and business letters are covered. Exercises to increase skill are stressed.
ECC, NLC ONLY

OFFICE CAREERS (OFC) 178 (1)
BEGINNING TYPING III (2 LAB.)
Prerequisite: Office Careers 176. The typing of manuscripts and tables is emphasized. Production typing is included, and proper report typing is developed. Exercises to increase skill are also included. ECC, NLC ONLY

OFFICE CAREERS (OFC) 187 (2)
INTERMEDIATE SHORTHAND I (2 Lec.)
Prerequisite: Prior shorthand experience equivalent to office careers 159 or one year in high school. This course is for students who have a basic knowledge of Gregg Shorthand Theory and ability to take dictation at approximately 50 words per minute. The course is a review of selected shorthand phrases, brief forms, word families, and word beginnings and endings. Included are the proper use of basic punctuation, typing format, and simple business letters. ECC, NLC ONLY

OFFICE CAREERS (OFC) 188 (1)
INTERMEDIATE SHORTHAND II (1 LEC.)
This course is designed for students who have a sound knowledge of Gregg Shorthand Theory and the ability to take dictation at approximiately 70-80 words per minute. The course is a review of selected shorthand phrases, brief forms, word families, and word beginnings and endings. The typing of accurate and attractive letters from shorthand notes is emphasized.
ECC, NLC ONLY

OFFICE CAREERS (OFC) 189 (1)
INTERMEDIATE SHORTHAND III (2 LAB.)
This course is designed for students who have a thorough and complete knowledge of Gregg Shorthand Theory and are interested in increasing speed. Special attention is on producing mailable letters within certain time periods. The dictation speed is flexible and depends on student abilities. NLC ONLY

OFFICE CAREERS (OFC) 192 (1)
OFFICE MACHINES I (1 LEC.)
Business mathematical skills needed to operate office machines are reviewed. Ten-key touch development is introduced. Speed development is incorporated with accuracy requirements. ECC, NLC ONLY

OFFICE CAREERS (OFC) 193 (1)
OFFICE MACHINES II (1 LEC.)
Prereqisite: Office Careers 192. This course covers extensive training on the basic office machines. Speed development and business applications are included. ECC, NLC ONLY

OFFICE CAREERS (OFC) 194 (1)
OFFICE MACHINES III (1 LEC.)
Prerequisite: Office Careers 192. Extensive training on basic office machines is continued. Speed development and business applications are stressed.
ECC, NLC ONLY

OFFICE CAREERS (OFC) 231 (3)
BUSINESS COMMUNICATIONS (3 LEC.)

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

OFFICE CAREERS (OFC) 256 (3)
OFFICE MANAGEMENT (3 LEC.)

This course focuses on the organization, design, and control of office activities. Topics include office practice, office services, and wage payment plans. The selection, training and supervision of employees are covered. Office planning, organizing, and controlling techniques are presented. Responsibilities of the office manager are also included.
NOT AT EFC, RLC

OFFICE CAREERS (OFC) 265 (3)
WORD PROCESSING PRACTICES AND PROCEDURES (3 LEC.)

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

OFFICE CAREERS (OFC) 266 (4)
ADVANCED SHORTHAND (3 LEC., 2 LAB.)

Prerequisites: Office Careers 166 or two years of shorthand in high school, Office Careers 174 or two years of typing in high school. Emphasis is on building dictation speed. Producing mailable, typed transcriptions under timed conditions is also stressed. Vocabulary and extensive production work capabilities are developed.

OFFICE CAREERS (OFC) 273 (2)
ADVANCED TYPING (48 CONTACT HOURS)

Prerequisite: Office Careers 174 or two years of typing in high school. Decision-making and production of all types of business materials under time conditions are emphasized. A continuation of skill development and a review of typing techniques are also stressed. Accuracy at advanced speeds is demanded.

OFFICE CAREERS (OFC) 274 (3)
LEGAL SECRETARIAL PROCEDURES (3 LEC.)

Prerequisite: Office Careers 174 or typing speed of 50 words per minute; Office Careers 166 or shorthand dictation speed of 80 words per minute. This course focuses on procedures of the legal secretary. Topics include reminder and filing systems, telephone usage, dictation and correspondence, the preparation of legal documents, and the court system. Client contacts, use of the law library, research techniques, timekeeping, billing, bookkeeping, and ethics are also covered. Ways to obtain a position as a Legal Secretary are described. CVC, NLC ONLY

OFFICE CAREERS (OFC) 275 (3)
SECRETARIAL PROCEDURES (48 CONTACT HOURS)

Prerequisites: Credit or concurrent enrollment in Office Careers 174, credit or concurrent enrollment in either Office Careers 166 or Office Careers 265. Emphasis is on initiative, creative thinking, and follow-through. Topics include in-basket exercises, decision-making problems, and use of

shorthand and transcription skills. Public and personal relations, supervisory principles, business ethics, and the organizing of time and work are also covered.

OFFICE CAREERS
(OFC) 713, 803, 813 (3)
(See Cooperative Work Experience)

OFFICE CAREERS
(OFC) 714, 804, 814 (4)
(See Cooperative Work Experience)

OPTICAL TECHNOLOGY
(OPT) 101 (3)
OPHTHALMIC MATERIALS (3 LEC.)

The history and development of glass and plastic are reviewed. Basic optical terminology and ophthalmic lens types are introduced. Lens curvature, powers thickness, and prisms are calculated. Adaptation of lenses in the opticianary and the use of optical charts and graphs are also covered. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 102 (3)
OPHTHALMIC GRINDING AND POLISHING (2 LEC., 2 LAB.)

The functions of optical lens grinding and lens polishing machines are presented. Computations are made for grinding lenses, and the use of optical tools and gauges is studied. Methods are covered for laying out and marking single vision and multifocal lens blanks. Grinding and polishing spherical and cylindrical surfaces are practiced, and the lens generating machine is operated. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 103 (3)
OPTICAL LENS DESIGN AND MEASUREMENTS (3 LEC.)

This course covers lens design and the correction of visual deficiencies according to the refractionist's prescription. Topics include spectacle frame measurements and sizes, methods used to prepare lenses prior to edging, neutralization and duplication of lenses by use of the lensometer/vertometer, and optical standards and tolerances. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 104 (3)
OPTICAL LENS AND FRAME SELECTION (2 LEC., 2 LAB.)

The preparation of lenses and frames is covered. Laboratory orders are prepared prior to edging lenses. Ophthalmic lenses are neutralized and duplicated by means of the verto-meter/lensometer. Spectacle frames and patterns are identified. Proper tools and lens blanks are selected. Hand edging, and fitting spherical lenses into plastic and metal frames are also covered. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 205 (3)
ANATOMY AND PHYSIOLOGY OF THE EYE (3 LEC.)

The anatomy of the eye and its structures are studied. Included are the lid, cornea, lens, and retina. Also included are refractive errors and their correction, accommodation and convergence, presbyopia and aphakia, common eye diseases, binocular vision, and eye muscle imbalances. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 206 (3)
INTRODUCTION TO CONTACT LENSES (3 LEC.)

The history, theory, and basic design of contact lenses are presented. Fundamental fitting rules and techniques are covered. Fluorescein patterns, evaluation of the fit of contact lenses and the keratometer fitting procedure are also covered. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 207 (3)
BIFOCALS AND TRIFOCALS LENSES (2 LEC., 2 LAB.)

All aspects of bifocals and trifocals lenses are examined. Processes include cutting and fitting of bifocals and trifocals into plastic and metal frames, handling plastic lenses, and drilling and mounting rimless glasses. Reconstructing and neutralizating lenses and glasses to analyze and duplicate unknown eyeglass prescriptions. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 208 (3)
OPHTHALMIC LABORATORY EQUIPMENT (2 LEC., 2 LAB.)

Various equipment is introduced and used. Processes include automatic edging and blocking, interpretating and analyzing shop orders, preparing compound lenses, creating prisms through decentration to fit prescription specification, and operation lens-hardening machines. Minor repairs to frames and temples and soldering of metal frames are also included. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 209 (3)
OPTHALMIC DISPENSING ETHICS (3 LEC.)

The ethics, practices, and responsibilities of the ophthalmic worker are explored. Topics include the determination of patient needs, prescription analysis, and interpretation of single vision, multifocal and prism lenses. Considerations in making glasses for occupational use are also discussed, and tinted lenses and their uses are included. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 210 (3)
OPHTHALMIC FITTING (3 LEC.)

The psychology of dispensing eyewear is discussed. Style and fashion eyewear are included. Visual problems of the aphakic patient are explored. Consideration is given to the effects of illumination, size of type, and working distance on visual performance. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 211 (3)
OPTIC PRINCIPLES (3 LEC.)

This course examines optic principles. Topics include vibrations, properties of waves, wave motion, geometric and physical optics, Hugen's principle, Young's double-slit experiment, and optical instruments. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 212 (3)
OPHTHALMIC MEASUREMENT (2 LEC., 2 LAB.)

Ocular measurements are covered. Included are the uses of various measuring instruments. The principle and techniques of fitting and adjusting spectacles by means of optical pliers and other equipment are also included. Completed spectacles are evaluated for accuracy and quality. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 213 (3)
DISPENSING OCCUPATIONAL EYEWEAR (2 LEC., 2 LAB.)

Dispensing procedures for bifocals and complex prescriptions are studied. Techniques of fitting and adjusting plastic, metal, and rimless spectacles are presented. Occupational eyewear and aids for patients with subnormal vision are also included. Magnifiers, loupes, and projection devices are demonstrated. Laboratory fee. NLC ONLY

OPTICAL TECHNOLOGY
(OPT) 703, 713 (3)
(See Cooperative Work Experience)

OPTICAL TECHNOLOGY
(OPT) 803, 813 (3)
(See Cooperative Work Experience)

OUTBOARD ENGINE (OE) 114 (3)
OUTBOARD ENGINE SERVICE PRINCIPLES (90 CONTACT HRS.)

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. CVC ONLY

OUTBOARD ENGINE (OE) 115 (3)
OUTBOARD ENGINE TUNE-UP (90 CONTACT HRS.)

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. CVC ONLY

OUTBOARD ENGINE (OE) 116 (3)
OUTBOARD ENGINE POWERHEAD OVERHAUL (90 CONTACT HRS.)

This course includes overhaul procedures for outboard powerheads. Laboratory fee. CVC ONLY

OUTBOARD ENGINE (OE) 117 (3)
OUTBOARD ENGINE LOWER UNIT OVERHAUL (90 CONTACT HRS.)

The theory of operation, service, and overhaul procedures for manual, hydraulic, and electric shift lower units are covered. Laboratory fee. CVC ONLY

OUTBOARD ENGINE (OE) 118 (3)
OUTBOARD ENGINE ELECTRICAL SYSTEMS (90 CONTACT HRS.)

The theory of operation and troubleshooting procedures for outboard engine ignition and charging systems and accessories are covered in this course. Laboratory fee. CVC ONLY

OUTBOARD ENGINE (OE) 723 (3)
(See Cooperative Work Experience)

CVC ONLY

OUTBOARD ENGINE (OE) 724 (4)
(See Cooperative Work Experience)

CVC ONLY

PATTERN DESIGN (DES) 110 (3)
BASIC COLOR THEORY AND APPLICATION (2 LEC., 4 LAB.)

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. ECC ONLY

PATTERN DESIGN (DES) 140 (1)
DRAPING (2 LAB.)

Prerequisite: Pattern Design 153. Dress designs are creatively interpreted on individual dress forms. Sketches or abstract designs are translated to muslin. Laboratory fee. ECC ONLY

PATTERN DESIGN (DES) 141 (1)
GRADING (2 LAB.)

Prerequisite: Pattern Design 153. The standard production pattern is emphasized. Both large and small sizing is included. Laboratory fee. ECC ONLY

PATTERN DESIGN (DES) 229 (3)
ADVANCED CLOTHING CONSTRUCTION (2 LEC., 3 LAB.)

Prerequisite: Design 129. Advanced techniques of garment construction are studied. Total garments are completed. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 151 (3)
PATTERN DRAFTING I (2 LEC., 4 LAB.)

The principles of drafting and draping basic patterns for collars, skirts, bodices, and sleeves are presented. Cutting out garments is also included. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 152 (3)
PATTERN DRAFTING II (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 151. Drafting and draping basic patterns for separates and dresses are covered. Basic techniques are developed in pattern grading. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 153 (3)
PATTERN DRAFTING III (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 152. Techniques are developed for drafting and draping patterns for girls, junior petite, and junior sizes. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 254 (3)
PATTERN DRAFTING IV (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 153. Techniques are developed for drafting and draping patterns for misses and half-sizes of casual, daytime dresses. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 255 (3)
PATTERN DRAFTING V (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 153. Techniques are developed for drafting and draping patterns for junior sportswear and misses sportswear. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 256 (3)
PATTERN DRAFTING VI (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 153. Techniques are developed for drafting and draping patterns for dressy dresses and lingerie. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 257 (3)
PATTERN DRAFTING VII (2 LEC., 4 LAB.)

Prerequisite: Pattern Design 255. Techniques are developed for drafting and draping patterns for misses and junior tailored garments. Laboratory fee. ECC ONLY

PATTERN DESIGN (PDD) 812 (2)
(See Cooperative Work Experience)

PATTERN DESIGN (PDD) 813 (3)
(See Cooperative Work Experience)

PATTERN DESIGN (PDD) 814 (4)
(See Cooperative Work Experience)

PHILOSOPHY (PHI) 102 (3)
INTRODUCTION TO PHILOSOPHY (3 LEC.)

The fundamental problems in philosophy are surveyed. Methods to deal with the problems are discussed. Ancient and modern views are examined as possible solutions.

PHILOSOPHY (PHI) 105 (3)
LOGIC (3 LEC.)

The principles of logical thinking are analyzed. The methods and tools of logic are applied to real-life situations. Fallacies, definitions, analogies, syllogisms, Venn diagrams, and other topics are discussed.

PHILOSOPHY (PHI) 202 (3)
INTRODUCTION TO SOCIAL AND POLITICAL PHILOSOPHY (3 LEC.)

The relationships of philosophical ideas to the community are presented. Emphasis is on concepts of natural rights, justice, education, freedom, and responsibility. NOT AT ECC

PHILOSOPHY (PHI) 203 (3)
ETHICS (3 LEC.)

The classical and modern theories of the moral nature of the human are surveyed. Alternative views of responsibilities to self and society are posed. Ethical issues and their metaphysical and epistemological bases are vivified. Emphasis is on applying ethical principles in life.
NOT AT EFC, ECC

PHILOSOPHY (PHI) 207 (3)
HISTORY OF ANCIENT PHILOSOPHY (3 LEC.)

The history of philosophy from pre-Socratic times to the Renaissance is examined. Connections are made between the pre-Socratics, Plato, and Aristotle. Stoicism, Epicureanism, and Scholasticism are considered.
BHC, CVC, RLC ONLY

PHILOSOPHY (PHI) 208 (3)
HISTORY OF MODERN PHILOSOPHY (3 LEC.)

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.
BHC, CVC, RLC ONLY

PHILOSOPHY (PHI) 210 (3)
STUDIES IN PHILOSOPHY (3 LEC.)

Prerequisite: 3 hours of philosophy and the consent of the instructor. A philosophical problem, movement, or special topic is studied. The course topic changes each semester. This course may be repeated for credit.

PHOTOGRAPHY (PHO) 110 (3)
INTRODUCTION TO PHOTOGRAPHY AND PHOTO-JOURNALISM (2 LEC., 4 LAB.)

Photography and photo-jouranlism are introduced. Topics include the general mechanics of camera lenses and shutters and the general characteristics of photographic films, papers, and chemicals. Darkroom procedures are presented, including enlarging, processing, contact printing, and exposing films and papers. Artificial lighting is studied. Laboratory fee.

PHOTOGRAPHY (PHO) 111 (3)
ADVANCED PHOTOGRAPHY AND PHOTO-JOURNALISM (2 LEC., 4 LAB.)

Techniques learned in Photography 110 are refined. Emphasis is on photographic communication. Laboratory fee. NOT AT EFC

PHOTOGRAPHY (PHO) 120 (4)
COMMERCIAL PHOTOGRAPHY I (3 LEC., 3 LAB.)

Commercial or contract photography is studied. Field, studio, and darkroom experience for various kinds of photography is discussed. Included are social photography, portrait and studio photography, fashion and theatrical portfolio, publicity photography, and convention photography. The use of natural, stationary, flash, and strobe artificial lights is covered. Laboratory fee. NOT AT EFC

PHOTOGRAPHY (PHO) 121 (4)
COMMERCIAL PHOTOGRAPHY II (3 LEC., 3 LAB.)

This course is a continuation of Photography 120. Publicity photography, architectual photography, interior photography, and advertising photography are included. The latest equipment, papers, films, and techniques are explored. Exchanges are made with sample clients, employers, studios, and agencies. Laboratory fee. NOT AT EFC

PHYSICAL EDUCATION (PEH) 100 (1)
LIFETIME SPORTS ACTIVITIES (3 LAB.)

Various lifetime sports are offered. Courses offered may include archery, badminton, bowling, golf, handball, racquetball, softball, swimming, tennis, and other sports. Activities may be offered singularly or in combinations. Instruction is presented at the beginner and advanced-beginner levels. Both men and women participate . This course may be repeated for credit when students select different activities. Laboratory fee.

PHYSICAL EDUCATION (PEH) 101 (3)
FUNDAMENTALS OF HEALTH (3 LEC.)

This course is for students majoring or minoring in physical education or having other specific interest. Personal health and community health are studied. Emphasis is on the causes of mental and physical health and disease transmission and prevention.

PHYSICAL EDUCATION (PEH) 104 (1)
TOUCH FOOTBALL/SOCCER (3 LAB.)

Touch football and soccer are taught and played. Emphasis is on skill development. A uniform is required. Laboratory fee. NOT AT BHC, EFC, NLC

PHYSICAL EDUCATION (PEH) 108 (3)
SOCIAL RECREATION (3 LEC.)

The methods and materials for social activities for different age groups are introduced. Planning, organizing, and conducting the activities are included. CVC, ECC ONLY

PHYSICAL EDUCATION (PEH) 109 (3)
OUTDOOR RECREATION (3 LEC.)

Outdoor recreation and organized camping are studied. Both the development of these activities and present trends are covered. NOT AT BHC, RLC

PHYSICAL EDUCATION
(PEH) 110 (3)
COMMUNITY RECREATION (3 LEC.)

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. NOT AT BHC, EFC

PHYSICAL EDUCATION (PEH)
111 (1)
BEGINNING WRESTLING (3 LAB.)

The fundamentals, techniques, rules, and strategy of wrestling are presented. Emphasis is also on spectator appreciation. A uniform is required. Laboratory fee. CVC, ECC, RLC ONLY

PHYSICAL EDUCATION (PEH)
112 (1)
SOFTBALL AND SOCCER (3 LAB.)

Softball and soccer are taught and played. A uniform is required. Laboratory fee. CVC, ECC, MVC ONLY

PHYSICAL EDUCATION (PEH)
113 (1)
HANDBALL AND RACQUETBALL (3 LAB.)

Handball and racquetball are taught and played. Emphasis is on the development of skills. A uniform is required. Laboratory fee. NOT AT BHC, NLC, RLC

PHYSICAL EDUCATION (PEH)
114 (1)
BEGINNING BADMINTON (3 LAB.)

The history, rules, and skills of badminton are taught. A uniform is required. Laboratory fee.
NOT AT BHC, NLC

PHYSICAL EDUCATION (PEH)
115 (1)
PHYSICAL FITNESS (3 LAB.)

The student's physical condition is assessed. A program of exercise for life is prescribed. Much of the course work is carried on in the physical performance laboratory. A uniform is required. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH)
116 (1)
INTRAMURAL ATHLETICS (3 LAB.)

Intramural competition in a variety of activities is offered for men and women. A uniform is required. This course may be repeated for credit. Laboratory fee.
NOT AT EFC, NLC

PHYSICAL EDUCATION (PEH)
117 (1)
BEGINNING ARCHERY (3 LAB.)

Beginning archery is taught and played. Equipment is furnished. Laboratory fee. NOT AT NLC

PHYSICAL EDUCATION (PEH)
118 (1)
BEGINNING GOLF (3 LAB.)

Beginning golf is taught and played. Equipment is furnished. Laboratory fee.

PHYSICAL EDUCATION (PEH)
119 (1)
BEGINNING TENNIS (3 LAB.)

This course is designed for the beginner. Tennis fundamentals are taught and played. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH)
120 (1)
BEGINNING BOWLING (2 LAB.)

Beginning bowling is taught and played. Equipment is furnished. Laboratory fee. NOT AT NLC

PHYSICAL EDUCATION (PEH)
121 (1)
FOLK DANCE (3 LAB.)

Participation is provided in a variety of folk dances from other lands. The study of cultural backgrounds and costumes is included. Laboratory fee.
CVC, RLC ONLY

PHYSICAL EDUCATION (PEH)
122 (1)
BEGINNING GYMNASTICS (3 LAB.)

Beginning gymnastics is offered. Emphasis is on basic skills in tumbling and in the various apparatus events. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 123 (1)
BEGINNING SWIMMING (2 LAB.)

This course teaches a non-swimmer to survive in the water. A uniform is required. Laboratory fee. NOT AT BHC

PHYSICAL EDUCATION (PEH) 124 (1)
SOCIAL DANCE (3 LAB.)

This course is for students who have limited experience in dance. Ballroom and social dancing are offered. Included are fundamental steps and rhythms of the fox-trot, waltz, tango, and recent dances. "Country" dancing includes the reel, square dance, and other dances. Laboratory fee. NOT AT BHC

PHYSICAL EDUCATION (PEH) 126 (1)
AEROBIC DANCE (3 LAB.)

This is a dance class which rhythmically combines dance movement with walking, jogging, and jumping to cause a sustained vigorous combination of steps, geared to raise the heart rate to a proper target zone for conditioning purposes. Each routine can be "danced" at different intensities, depending on the physical condition of each participant. Laboratory fee.

PHYSICAL EDUCATION (PEH) 127 (1)
BASKETBALL AND VOLLEYBALL (3 LAB.)

The techniques, rules, and strategy of basketball and volleyball are covered. Emphasis is on playing the games. A uniform is required. Laboratory fee. NOT AT NLC

PHYSICAL EDUCATION (PEH) 128 (1)
SOCIAL AND FOLK DANCE (3 LAB.)

Social and folk dance is introduced. Laboratory fee.

PHYSICAL EDUCATION (PEH) 129 (1)
MODERN DANCE (3 LAB.)

This beginning course is designed to emphasize basic dance technique, including body alignment and placement, floor work, locomotor patterns, and creative movements. A uniform is required. NOT AT NLC

PHYSICAL EDUCATION (PEH) 131 (1)
WEIGHT TRAINING AND CONDITIONING (3 LAB.)

Instruction and training in weight training and conditioning techniques are offered. A uniform is required. This course may be repeated for credit. Laboratory fee.

PHYSICAL EDUCATION (PEH) 132 (1)
SELF-DEFENSE (3 LAB.)

Various forms of self-defense are introduced. The history and philosophy of the martial arts are explored. The student should progress from no previous experience in self-defense to an adequate skill level covering basic self-defense situations. Both mental and physical aspects of the arts are stressed.

PHYSICAL EDUCATION (PEH) 134 (1)
OUTDOOR EDUCATION (3 LAB.)

Knowledge and skills in outdoor education and camping are presented. Planned and incidental experiences take place, including a week-end camp-out. Laboratory fee.

PHYSICAL EDUCATION (PEH) 144 (3)
INTRODUCTION TO PHYSICAL EDUCATION (3 LEC.)

This course is for students majoring in physical education and is designed for professional orientation in physical education, health, and recreation. The history, philosophy, and modern trends of physical education are surveyed. Topics include teacher qualifications, vocational opportunities, expected competencies, and skill testing. NOT AT BHC

PHYSICAL EDUCATION (PEH) 147 (3)
SPORTS OFFICIATING I (2 LEC., 2 LAB.)

This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are football, basketball, and other sports as appropriate. Students are expected to officiate intramural games. NOT AT BHC

PHYSICAL EDUCATION (PEH) 148 (3)
SPORTS OFFICIATING II (2 LEC., 2 LAB.)

This course is for students who choose officiating for an avocation and who want to increase their knowledge and appreciation of sports. Sports covered in this course are softball, track and field, baseball, and other sports as appropriate. Students are expected to officiate intramural games. NOT AT BHC

PHYSICAL EDUCATION (PEH) 200 (1)
LIFETIME SPORTS ACTIVITIES II (3 LAB.)

This course is a continuation of Physical Education 100. Students participate in selected activities. Instruction is at the intermediate and intermediate/advanced levels. This course may be repeated for credit. Laboratory fee. NOT AT EFC

PHYSICAL EDUCATION (PEH) 210 (3)
SPORTS APPRECIATION FOR THE SPECTATOR (3 LEC.)

This course is for students who desire a broader knowledge of major and minor sports. The rules, terminology, and philosophies of many sports are studied. Special emphasis is on football and basketball.
CVC, EFC, MVC ONLY

PHYSICAL EDUCATION (PEH) 217 (1)
INTERMEDIATE ARCHERY (3 LAB.)

This course is for the student who has previous experience in archery. Target shooting and field archery are emphasized. The student must furnish equipment. Laboratory fee. NOT AT EFC, NLC

PHYSICAL EDUCATION (PEH) 218 (1)
INTERMEDIATE GOLF (2 LAB.)

Prerequisite: The consent of the instructor. Skills and techniques in golf are developed beyond the "beginner" stage. Laboratory fee.

PHYSICAL EDUCATION (PEH) 219 (1)
INTERMEDIATE TENNIS (3 LAB.)

Prerequisite: The consent of the instructor. Skills and techniques in tennis are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 222 (1)
INTERMEDIATE GYMNASTICS (3 LAB.)

Prerequisite: Physical Education 122. Skills and techniques in gymnastics are developed beyond the "beginner" stage. A uniform is required. Laboratory fee.

PHYSICAL EDUCATION (PEH) 223 (1)
INTERMEDIATE SWIMMING (2 LAB.)

Prerequisite: Beginning swim certificate or deep water swimmer. This course advances the swimmer's skills. Stroke analysis, refinement, and endurance are emphasized. A uniform is required. Laboratory fee.

NOT AT BHC, EFC

PHYSICAL EDUCATION (PEH) 225 (2)
SKIN AND SCUBA DIVING (1 LEC., 2 LAB.)

Prerequisite: Physical Education 223 or the consent of the instructor. This course includes the use of equipment, safety, physiology, and open water diving. All equipment is supplied except mask, fins, and snorkel. The student may rent needed equipment at the time on registration. Students completing course requirements receive certification as basic scuba divers from the Professional Association of Diving Instructors (PADI) or the National Association of Underwater Instructors (NAUI). Laboratory fee. NOT AT BHC, ECC, NLC

PHYSICAL EDUCATION (PEH) 226 (1)
ADVANCED LIFE SAVING (2 LAB.)

Prerequisite: Physical Education 223 or deep water swim ability. This course qualifies students for the Red Cross Advanced Lifesaving Certificate. A uniform is required. Laboratory fee. NOT AT BHC, ECC

PHYSICAL EDUCATION (PEH) 234 (2)
WATER SAFETY INSTRUCTOR (1 LEC., 2 LAB.)

Prerequisite: Current Advanced Life Saving card. The principles and techniques for instructors in water safety and life saving classes are covered. Completion of the course qualifies the student to test for certification by the Red Cross as a water safety instructor. A uniform is required. Laboratory fee.
NOT AT BHC, ECC

PHYSICAL EDUCATION (PEH) 236 (3)
THE COACHING OF FOOTBALL AND BASKETBALL (2 LEC., 2 LAB.)

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.
NOT AT BHC, EFC, NLC

PHYSICAL EDUCATION (PEH) 238 (2)
AQUATICS (1 LEC., 2 LAB.)

The techniques and procedures of selected water-related activities are studied. The use of the activities in recreation programs is included. Pool management, staff training, safety, and supervision of aquatics are also included. CVC ONLY

PHYSICAL EDUCATION (PEH) 257 (3)
ADVANCED FIRST AID AND EMERGENCY CARE (3 LEC.)

The Advanced First Aid and Emergency Care course of the American Red Cross is taught, presenting both theory and practice. Various aspects of safety education also are included.



PHYSICAL SCIENCE (PSC) 118 (4)
PHYSICAL SCIENCE (3 LEC., 3 LAB.)

This course 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. NOT AT MVC

PHYSICAL SCIENCE (PSC) 119 (4)
PHYSICAL SCIENCE (3 LEC., 3 LAB.)

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. Laboratory fee.
NOT AT EFC, MVC

PHYSICS (PHY) 110 (4)
INTRODUCTORY PHOTOGRAPHIC SCIENCE (3 LEC., 3 LAB.)

Prerequisites: Photography 110, Art 113, or the consent of the instructor, and access to a camera with variable speed and aperature. This course introduces the physical and chemical principles which form the basis for photographic technology. Topics covered include the production of light, its measurement and control, principles of optics and the formation of images, the basic chemistry of black and white and color processes, film structure and characteristics, filter characteristics, lasers, and holography. Laboratory fee.

PHYSICS (PHY) 111 (4)
INTRODUCTORY GENERAL PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Two years of high school algebra, including trigonometry, or the equivalent. This course is for pre-dental, biology, pre-medical, pre-pharmacy, and pre-architecture majors and other students who need a two-semester technical course in physics. Mechanics and heat are studied. Laboratory fee.

PHYSICS (PHY) 112 (4)
INTRODUCTORY GENERAL PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Physics 111. This course is a continuation of Physics 111. Electricity, magnetism, light, and sound are studied. Laboratory fee.

PHYSICS (PHY) 117 (4)
CONCEPTS IN PHYSICS (3 LEC., 3 LAB.)

This course is for non-science majors. It introduces principles of physics and does not require a mathematical background. Emphasis is on classical mechanics and thermodynamics. Historical developments and their impact on daily life are included. The principle of energy conservation is stressed, and current problems of world-wide energy production are examined. Laboratory fee.
NOT AT BHC, NLC

PHYSICS (PHY) 118 (4)
CONCEPTS IN PHYSICS (3 LEC., 3 LAB.)

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.
NOT AT BHC, NLC

PHYSICS (PHY) 131 (4)
APPLIED PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Mathematics 195 or concurrent enrollment in Mathematics 195. This course is primarily for students in technical programs. The properties of matter, mechanics, and heat are introduced. Emphasis is on uses and problem-solving. Laboratory fee.

PHYSICS (PHY) 132 (4)
APPLIED PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Physics 131. This course is a continuation of Physics 131. Concepts of sound, light, electricity, magnetism, and atomic theory are explained. Laboratory fee.
NOT AT BHC, MVC, RLC

PHYSICS (PHY) 201 (4)
GENERAL PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Credit or concurrent enrollment in Mathematics 126 or 222. 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.
ECC ONLY

PHYSICS (PHY) 202 (4)
GENERAL PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Physics 201 and credit or concurrent enrollment in Mathematics 223 or 227. 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.

PHYSICS (PHY) 203 (4)
INTRODUCTION TO MODERN PHYSICS (3 LEC., 3 LAB.)

Prerequisite: Physics 202. The principles of relativity, atomic physics, and nuclear physics are covered. Emphasis is on basic concepts, problem-solving, notation, and units. Laboratory fee. NOT AT ECC, MVC, NLC

POLICE SCIENCE (POL) 134 (3)
CRIMINAL EVIDENCE AND PROCEDURE (3 LEC.)

This course is a study of trial and courtroom procedure. Topics include parties in the case, rules of evidence, decision, and punishment. Due process is emphasized. ECC ONLY

POLICE SCIENCE (POL) 137 (3)
POLICE COMMUNITY RELATIONS (3 LEC.)

The role of the individual officer in getting and holding public support is examined. Topics include human relations, public information and relationships with violators and complainants. ECC ONLY

POLICE SCIENCE (POL) 140 (3)
INTRODUCTION TO LAW ENFORCEMENT (3 LEC.)

The history of U.S. systems of justice is surveyed, including the police system. Topics include police problems, and crime trends and statistics. The organization and jurisdiction of local, state, and federal enforcement agencies are covered. Professional opportunities and personnel qualifications are also studied. Emphasis is on analysis of modern trends and thinking in the police service. ECC ONLY

POLICE SCIENCE (POL) 141 (3)
POLICE ORGANIZATION AND ADMINISTRATION (3 LEC.)

Prerequisite: Police Science 140. This course focuses on organization and administration. Topics include philosophies of organization structures, and administrative processes and management. Traditional organizational concepts, administrative techniques, personnel policies, and operating systems are also covered. ECC ONLY

POLICE SCIENCE (POL) 142 (3)
LEGAL ASPECTS OF LAW ENFORCEMENT (3 LEC.)

Prerequisite: Police Science 140. This course is an orientation to criminal law in the American justice system. Topics include criminal statutes, case law, legal definitions, and procedures of law enforcement. ECC ONLY

POLICE SCIENCE (POL) 143 (3)
PRACTICAL SPANISH FOR PUBLIC SERVICE PERSONNEL (3 LEC.)

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. ECC ONLY

POLICE SCIENCE (POL) 144 (3)
PRACTICAL SPANISH FOR PUBLIC SERVICE PERSONNEL (3 LEC.)

Prerequisite: Police Science 143. This course is a continuation of Police Science 143. Emphasis continues on the skills of understanding, speaking, and listening. Specialized vocabulary and conversational drills in English and Spanish are also continued. ECC ONLY

POLICE SCIENCE (POL) 146 (3)
PATROL ADMINISTRATION (3 LEC.)

Prerequisite: Police Science 140. All aspects of patrol are presented. The philosophy, history, role, functions, organization, and operation of patrol are included. Operational and administration problems are studied and alternate solutions analyzed. ECC ONLY

POLICE SCIENCE (POL) 233 (3)
INTRODUCTION CRIMINALISTICS (3 LEC.)

Prerequisites: Police Science 140 and 240. Physical evidence in criminal investigation is studied. Topics include the recognition, collection, preservation, and laboratory processing of evidence. Instrumental methods are surveyed. Photographs of evidence from actual cases are examined using various identification and comparison techniques. ECC ONLY

POLICE SCIENCE (POL) 240 (3)
CRIMINAL INVESTIGATION (3 LEC.)

Prerequisite: Police Science 140. This course covers the theory and practical aspects of a complex investigation. Topics include investigative techniques, legal procedures, and scientific analysis. Criminalistics and crime scene search are also included. ECC ONLY

POLICE SCIENCE (POL) 241 (3)
POLICE ROLE IN CRIME AND DELINQUENCY (3 LEC.)

Prerequisite: Police Science 140. Philosophies of preventing and controlling delinquency are introduced. Topics include police services for delinquent, neglected, and special-problem juveniles, and organization for dealing with delinquent behavior. Sociological, psychological, and biological factors relating to criminal activity are explored. Legal concepts in the treatment of juvenile offenders are reviewed.

POLICE SCIENCE (POL) 242 (3)
JUVENILE PROCEDURES (3 LEC.)

Prerequisite: Police Science 140. The course covers recent research and new materials in juvenile procedures. Emphasis is on the major responsibilities of police work with children and youth. ECC ONLY

POLICE SCIENCE (POL) 243 (3)
PROBATION AND PAROLE (3 LEC.)

Prerequisite: Police Science 140. Criminal corrections are introduced. The history of corrections is included. ECC ONLY

POLICE SCIENCE (POL) 244 (3)
TRAFFIC PLANNING AND ADMINISTRATION (3 LEC.)

Prerequisite: Police Science 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. ECC ONLY

POLICE SCIENCE (POL) 245 (3)
TRAFFIC LAW (3 LEC.)

Prerequisite: Police Science 140. This course focuses on the principles of traffic control, traffic law enforcement, and traffic court procedures. Texas traffic laws are stressed. Topics include professional approaches to deal with traffic law violators and the police role in accident prevention and investigation. The principles of education, enforcement, and engineering are also included. ECC ONLY

POLICE SCIENCE (POL) 246 (3)
PENOLOGY (JAIL OPERATION AND MANAGEMENT) (3 LEC.)

Prerequisite: Police Science 140. The concepts of penology are presented. The operation and management of a penal institution are studied, and the rationale for the penal institution is covered. ECC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 210 (3)
LABOR RELATIONS (3 LEC.)

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 development of labor unions, problems and/or issues in the Postal Service, national and local agreements, bargaining units, grievance procedures, disciplinary action procedures and the relationships to the national labor relations board. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 110 (3)
INTRODUCTION TO POSTAL SERVICE (3 LEC.)

This survey course of the Postal Service, taking a historical view, will depict and compare the private, corporate, and governmental agencies which have been responsible for mail service throughout the world. The current U.S. Postal Organization, mandated by public law, is studied. Also included in the course are discussions of postal philosophies, policies, procedures, rules and

regulations, and the history of the Postal Inspection Service. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 120 (3)
MAIL PROCESSING (3 LEC.)

Through discussion of mail processing and transportation procedures of the U.S. Postal Service, this course will provide the student with an in-depth view of revenue determination and 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. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 122 (3)
CUSTOMER SERVICES (3 LEC.)

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 services, and techniques of effective public relations. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 125 (3)
POSTAL ECONOMICS AND FINANCE (3 LEC.)

This course explores how postal revenues are established, controlled, received, processed and used to defray operating costs. With emphasis on planning, organization, cost control, budget preparation, cost benefit analysis and related office services functions, the course will deal in depth with control techniques and accountability required of the Postal Service. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 212 (3)
EMPLOYEE SERVICES (3 LEC.)

This course details the actual functions of the employee relations office with a view of the services provided for Postal Service employees. Among the topics included are policies and practices concerning selection, placement, training, and promotion of employees, the Equal Employment Opportunity Act, programs for alcoholic recovery, insurance and retirement benefits, awards programs, salary schedules, and safety and health rules. MVC ONLY

POSTAL SERVICE ADMINISTRATION (PSA) 214 (3)
POSTAL PROBLEMS ANALYSIS (3 LEC.)

This course provides opportunity for practical application of Postal Service and management theories. Students must use system analysis, problem solving grids and other tools of management decision-making to assess a stated Postal Service problem and to determine appropriate solution(s). MVC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 101 (3)
INTRODUCTION TO PRECISION OPTICS TECHNOLOGY (3 LEC.)

This course introduces the student to the precision optics industry. The student examines the impact of precision optics in our present day society and studies the terminology, types of optical materials, basic optical systems, and processing technology. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 102 (3)
PRECISION OPTICS MACHINING I (2 LEC., 2 LAB.)

Skills required for milling, blocking, core drilling, generating and sawing precision optical elements are identified and developed. Class-room instruction and actual machine operation are included. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 103 (3)
PRECISION OPTICS MACHINING II (2 LEC., 2 LAB.)

Prerequisite: Previous completion or concurrent enrollment in Precision Optics Technology 102 or the equivalent. This course is a continuation of Precision Optics Machining I. Skill development for pell grinding, loose abrasive grinding, polishing and edging operations are included. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 104 (3)
INDUSTRIAL SHOP SAFETY (3 LEC.)

This course is designed to develop a safety awareness, good safety attitudes and the ability to detect unsafe conditions and practices. The course covers materials handling and storage, industrial housekeeping, personal protective equipment, machines and power tools, fire prevention and first aid. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 105 (3)
PRECISION OPTICS MACHINING III (2 LEC., 2 LAB.)

Prerequisite: Precision Optics Technology 103 or the equivalent. This course is a continuation of Optical Machining I & II advancing into the theory involved in each fabrication operation. The course also covers the methods and tooling required for the different lens types. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 106 (4)
THIN FILM OPTICAL COATINGS (3 LEC., 3 LAB.)

This course includes principles and applications of thin film coatings emphasizing fundamental concepts, notation, machine operation, and clean room requirements. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 107 (2)
PRECISION OPTICS HANDLING AND CLEANING (1 LEC., 3 LAB.)

This course is designed to give the student a full understanding of the handling and cleaning of optical elements throughout the entire fabrication process. The hardness and stain factor of each glass type, cleaning processes for both fabrication and coating, symbolization, equipment usage and packaging are included. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 201 (3)
BASIC PRECISION OPTICS THEORY (3 LEC.)

This course includes basic theory of lens design, properties of wares and ware motion, refraction and reflection, Hugen's principle, and a functional understanding of optical instrument design. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 203 (3)
PRECISION OPTICS QUALITY CONTROL (3 LEC.)

The faction of a standard quality control organization with a detailed look into the sampling and reporting requirements to insure quality standards is covered. The student gains a working knowledge of the required equipment and quality specification standards employed throughout the optical industry. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 204 (3)
PRECISION OPTICS ASSEMBLY (2 LEC., 2 LAB.)

This course is a study of the basic principles and concepts of precision optical assembly. The student gains the theory and skills necessary to use the tooling and equipment to set and bond the various optical elements. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 205 (3)
ADVANCED PRECISION OPTICS PROCESSES (2 LEC., 2 LAB.)

This course includes an intensive study in advanced optical fabrication and coating processes dealing with exotic glass materials and ultra high precision optical elements. Laboratory fee. NLC ONLY

PRECISION OPTICS TECHNOLOGY (POP) 703 (3)
(See Cooperative Work Experience)

NLC ONLY

PSYCHOLOGY (PSY) 103 (3)
SEX ROLES IN AMERICAN SOCIETY (3 LEC.)

Students may register for either Psychology 103 or Sociology 103 but receive credit for only one of the two. Human sexuality is studied. The physiological, psychological, and sociological aspects are included.

PSYCHOLOGY (PSY) 105 (3)
INTRODUCTION TO PSYCHOLOGY (3 LEC.)

Principles of human behavior and problems of human experience are presented. Topics include heredity and environment, the nervous system, motivation, learning, emotions, thinking, and intelligence. (This course is offered on campus and may be offered via television.)

PSYCHOLOGY (PSY) 131 (3)
HUMAN RELATIONS (3 LEC.)

Psychological principles are applied to human relations problems in business and industry. Topics include group dynamics and adjustment factors for employment and advancement.

PSYCHOLOGY (PSY) 201 (3)
DEVELOPMENTAL PSYCHOLOGY (3 LEC.)

Prerequisite: Psychology 105. This course is a study of human growth, development, and behavior. Emphasis is on psychological changes during life. Processes of life from prenatal beginnings through adulthood and aging are included. (This course is offered on campus and may be offered via television.)

PSYCHOLOGY (PSY) 202 (3)
APPLIED PSYCHOLOGY (3 LEC.)

Prerequisite: Psychology 105. 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.

PSYCHOLOGY (PSY) 205 (3)
PSYCHOLOGY OF PERSONALITY (3 LEC.)

Prerequisite: Psychology 105. Important factors of successful human adjustment such as child parent relationships, adolescence, anxiety states, defense mechanisms, and psychotherapeutic concepts are considered. Methods of personality measurement are also included.

PSYCHOLOGY (PSY) 207 (3)
SOCIAL PSYCHOLOGY (3 LEC.)

Prerequisite: Psychology 105 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.

PSYCHOLOGY (PSY) 210 (3)
SELECTED TOPICS IN PSYCHOLOGY (3 LEC.)

Prerequisite: Psychology 105. An elective course designed to deal with specific topics in psychology. Examples of topics might include "adult development," "adolescent psychology," and "behavioral research." Course may be repeated once for credit.

QUALITY CONTROL TECHNOLOGY (QCT) 121 (2)
INTRODUCTION TO QUALITY CONTROL (2 LEC.)

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. Elementry probability and statistics concepts are presented as background. RLC ONLY

QUALITY CONTROL TECHNOLOGY (QCT) 122 (3)
DIMENSIONAL MEASUREMENT (2 LEC., 2 LAB.)

Prerequisite: Credit or concurrent enrollment in Quality Control Technology 121 or the consent of the instructor. This course provides an opportunity to obtain a practical and theoretical understanding of many types of mechanical and optical measuring devices which are used in dimensional inspection. Laboratory fee. MVC, RLC ONLY

QUALITY CONTROL TECHNOLOGY (QCT) 220 (3)
PHYSICAL AND ENVIRONMENTAL TESTING (2 LEC., 2 LAB.)

Prerequisite: Quality Control Technology 121. This course introduces tests and evaluations used on raw materials and fabricated parts. Topics include tensile and hardness testing, metallurgical cross-sectioning, temperature-humidity cycling, and corrosion resistance testing. Laboratory fee. RLC ONLY

QUALITY CONTROL TECHNOLOGY (QCT) 227 (3)
NON-DESTRUCTIVE EVALUATION (2 LEC., 2 LAB.)

Prerequisite: Quality Control Technology 122. This course provides a basic background in such areas as industrial radiography, magnetic particle and penetrant inspection, eddy current, and ultrasonic testing. Laboratory fee. RLC ONLY

QUALITY CONTROL TECHNOLOGY (QCT) 236 (4)
ADVANCED QUALITY CONTROL SYSTEMS (3 LEC., 2 LAB.)

Prerequisite: Quality Control Technology 122. A detailed study is made of the control and information systems and decision procedures necessary to effectively operate the quality control function. Topics and problems include reliability process control, failure analysis, and corrective action systems. A problem-prevention and problem-solving approach is emphasized. RLC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 176 (4)
CLINICAL EDUCATION III, FILM EVALUATION (32 LAB.)

Prerequisites: "C" grade in Radiography Technology 160, 162, and 164 and concurrent enrollment in Radiography Technology 170, 172, and 174. Students receive clinical education in a hospital radiology department. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 262 (3)
RADIATION BIOLOGY AND RADIATION PROTECTION (2 LEC., 2 LAB.)

Prerequisites: "C" grade in Radiography Technology 250, 252, 254,and 256 and concurrent enrollment in Radiography Technology 260 and 264. This course is an analysis of the effects of ionizing radiation on biologic systems. The application of radiation limiting devices and techniques utilized in radiography to protect the public from excessive radiation during radiographic examinations are covered. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 272 (3)
SEMINAR (1 LEC., 3 LAB.)

Prerequisites: "C" grade in Radiography Technology 260, 262, and 264 and concurrent enrollment in Radiography Technology 270 and 274. This course is a seminar session to prepare students for job interviews, to write resumes, and to develop an appreciation for their role as a radiographer in the community. A comprehensive review of major subject areas is included. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 150 (3)
INTRODUCTION TO RADIOGRAPHY TECHNOLOGY (2 LEC., 2 LAB.)

Prerequisites: Admission to program and concurrent enrollment in Radiography Technology 152, 154, and 156. This course introduces students to the goals, philosophies, and organization of the radiography program. Other subjects included are history of X-ray, medical ethics, basic radiation protection, interpersonal relationships, and principles of patient care. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 152 (4)
RADIOGRAPHIC PROCEDURES I (3 LEC., 2 LAB.)

Prerequisites: Admission to program and concurrent enrollment in Radiography Technology 150, 154, and 156. This course is an integrated study of medical terminology, patient care, and osteology and positioning of the upper extremities and lower extremities, pectoral and pelvic girdle. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 154 (3)
RADIOGRAPHIC EXPOSURE AND PHYSICS I (2 LEC., 2 LAB.)

Prerequisites: Admission to program and concurrent enrollment in Radiography Technology 150, 152, and 156. This course is an introduction to the prime exposure factors and factors influencing radiographic quality. An analysis of physical principles related to matter, energy and basic electricity is included. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 156 (2)
CLINICAL EDUCATION I, FILM EVALUATION (16 LAB.)

Prerequisites: Concurrent enrollment in Radiography Technology 150, 152, and 154. The first seven weeks consist of a study of radiographic processing technics, basic radiographic procedures, basic radiographic exposure, film evaluation, and a seminar session. For the remaining weeks, the student is assigned to a Dallas area hospital for supervised clinical education in a radiology department in which an adequate variety and number of examinations are available. Students work closely with experienced registered radiographers, where they observe and assist in handling patients as they undergo radiographic examination. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 160 (4)
RADIOGRAPHIC PROCEDURES II (3 LEC., 2 LAB.)

Prerequisites: "C" grade in Radiography Technology 150, 152, and 156 and concurrent enrollment in Radiography Technology 162 and 164. This course is an integrated study of medical terminology, patient care, and osteology and positioning of the thoracic cage, and vertebral spine. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 162 (3)
RADIOGRAPHIC EXPOSURE AND PHYSICS II (2 LEC., 2 LAB.)

Prerequisites: "C" grade in Radiography Technology 150, 152, 154 and 156 and concurrent enrollment in Radiography Technology 160 and 164. Technic formation and conditions influencing exposure factors are covered. An analysis of physical principles related to magnetism, induction principles and transformers, basic X-ray tubes and rectifiers are included. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 164 (3)
CLINICAL EDUCATION II, FILM EVALUATION (24 LAB.)

Prerequisite: "C" grade in Radiography Technology 150, 152, 154 and 156 and concurrent enrollment in Radiography Technology 160 and 162. Students receive clinical education in a hospital radiology department. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 170 (1)
RADIOGRAPHIC PROCEDURES III (1 LEC., 1 LAB.)

Prerequisite: "C" grade in Radiography Technology 160, 162, and 164, Biology 120 (summer start), and Biology 121 (fall start) and concurrent enrollment in Radiography Technology 172, 174, and 176. This course is an integrated study of medical terminology, patient care, and osteology and positioning of the skull. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 172 (1)
RADIOGRAPHY EXPOSURE III (1 LEC., 1 LAB.)

Prerequisites: "C" grade in Radiography Technology 160, 162, and 164 and concurrent enrollment in Radiography Technology 170, 174, and 176. This course is an intermediate study of exposure factors. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 250 (1)
RADIOGRAPHIC EXPOSURE IV (1 LEC., 1 LAB.)

Prerequisites: "C" grade in Radiography Technology 170, 172, 174, and 176 and concurrent enrollment in Radiography Technology 252, 254, and 256. Image quality and quality assurance are covered. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 252 (1)
RADIOGRAPHIC PROCEDURES IV (1 LEC., 1 LAB.)

Prerequisites: "C" grade in Radiography Technology 170, 172, 174, and 176 and concurrent enrollment in Radiography Technology 250, 254, and 256. This course is a continuing study of esteology and positioning of the skull and miscellaneous radiographic procedures. Laboratory fee. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 254 (1)
SPECIAL PROCEDURES (1 LEC., 1 LAB.)

Prerequisites: "C" grade in Radiography Technology 170, 172, 174, and 176, Biology 120 and 121, and concurrent enrollment in Radiography Technology 250, 252, and 256. The equipment, anatomy, and basic procedures pertinent to invasive special procedures are introduced. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 256 (4)
CLINICAL EDUCATION IV, FILM EVALUATION (24 LAB.)

Prerequisites: "C" grade in Radiography Technology 170, 172, 174, and 176 and concurrent enrollment in Radiography Technology 250, 252, and 254. Students receive clinical education in a hospital radiology department. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 260 (2)
IMAGING AND PATHOLOGY (2 LEC.)

Prerequisites: "C" grade in Radiography Technology 250, 252, 254, and 256 and concurrent enrollment in Radiography Technology 262 and 264. This course is an integrated study of the various imaging modalities utilized in radiography and related fields. Various pathologic conditions of the body and their impact on the radiographic process are introduced. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 264 (4)
CLINICAL EDUCATION V, FILM EVALUATION (32 LAB.)

Prerequisites: "C" grade in Radiography Technology 250, 252, 254, and 256 and concurent enrollment in Radiography Technology 260 and 262. Students receive clinical education in a hospital radiology department. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 270 (2)
DEPARTMENTAL MANAGEMENT (2 LEC.)

Prerequisites: "C" grade in Radiogaphy Technology 260, 262, and 264 and concurrent enrollment in Radiography Technology 272 and 274. This course is an introduction to radiology department planning, design and mangement. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 274 (4)
CLINICAL EDUCATION VI, FILM EVALUATION (32 LAB.)

Prerequisites: "C" grade in Radiography Technology 260, 262, and 264 and concurrent enrollment in Radiography Technology 270 and 272. Students receive clinical education in a hospital radiology department. ECC ONLY

RADIOGRAPHY TECHNOLOGY (RAD) 174 (1)
RADIOGRAPHIC PHYSICS III (1 LEC., 1 LAB.)

Prerequisites: "C" grade in Radiography 160, 162, and 164 and concurrent enrollment in Radiography 170, 172, and 176. This course is an analysis of physical principles involved in the production of X-rays, and interaction of X-rays in matter and detection of X-rays. ECC ONLY

READING (RD) 101 (3)
EFFECTIVE COLLEGE READING (3 LEC.)

Comprehension techniques for reading fiction and non-fiction are presented. Critical reading skills are addressed. Analysis, critique, and evaluation of written material are included. Reading comprehension and flexibility of reading rate are stressed. Advanced learning techniques are developed in listening, note-taking, underlining, concentrating, and reading in specialized academic areas.

READING (RD) 102 (3)
SPEED READING AND LEARNING (3 LEC.)

Reading and learning skills are addressed. Speed reading techniques and comprehension are emphasized. Learning and memory skills are also covered.

REAL ESTATE (RE) 130 (3)
REAL ESTATE PRINCIPLES (3 LEC.)

Real estate principles, law, and operating procedures in the State of Texas are presented. Topics include arithmetical calculations for real estate transactions, conveyancing, land economics and appraisals, obligations between the principal and agent, ethics, and rules and regulations of the State Commission of Real Estate. The purposes of various real estate instruments are also covered, such as deeds, deed of trust, mortgages, land contracts of sale, leases, liens, and listing contracts. NLC, RLC ONLY

REAL ESTATE (RE) 131 (3)
REAL ESTATE FINANCE (3 LEC.)

Prerequisite: Credit or concurrent enrollment in Real Estate 130. Procedures in financing real estate sales and obtaining funds are covered. Legal aspects of mortagages and related instruments are included. Problems and case studies are also included. NLC, RLC ONLY

REAL ESTATE (RE) 133 (3)
REAL ESTATE MARKETING (3 LEC.)

Prerequisites: Real Estate 130, 131, and 136. The principles and techniques of marketing real estate are studied. Emphasis is on professional procedures and the satisfaction of all parties. Topics include the relationship between the agent and principal, product knowledge, prospective markets, and customer prospective markets, and customer prospecting. Planning the sales presentation, meeting the prospect, having the interview, overcoming sales resistance, closing the sale, and building goodwill are also included. Listing and sales contracts are prepared, and case studies are analyzed. NLC, RLC ONLY

REAL ESTATE (RE) 135 (3)
REAL ESTATE APPRAISAL (3 LEC.)

Prerequisites: Real Estate 130, 131, and 133. This course focuses on principles and methods of appraising used in establishing the market value of real estate. NLC, RLC ONLY

REAL ESTATE (RE) 136 (3)
REAL ESTATE LAW (3 LEC.)

Prerequisite: Real Estate 130 or the consent of the instructor. The complex parts of real estate law are examined. Topics include ownership, the use and transfer of real property, enforceability of contractual rights, and the impact of litigation. NLC, RLC ONLY

REAL ESTATE (RE) 230 (3)
REAL ESTATE OFFICE MANAGEMENT (3 LEC.)

Prerequisites: Real Estate 130, 131, 133, 135, and 136 or the consent of the instructor. Managing a real estate office is covered. Topics include office procedures, relations, communications, and ethics.
NLC, RLC ONLY

REAL ESTATE (RE) 233 (3)
COMMERCIAL AND INVESTMENT REAL ESTATE (3 LEC.)

Prerequisites: Real Estate 130, l31, 133, 135, and 136 or the consent of the instructor. Commercial and investment real estate is studied. Topics include syndication, "Joint Venture" or group ownership of real estate, selection, financing, and management.
NLC, RLC ONLY

REAL ESTATE (RE) 235 (3)
PROPERTY MANAGEMENT (3 LEC.)

Prerequisites: Real Estate 130, 131, and 133 and concurrent enrollment in Real Estate 254. Also, the student must submit an application to the instructor, be interviewed, and be approved prior to registration. This course provides practical work experience in the field of real estate. Principles and skills learned in other courses are applied. The employer/sponsor and a member of the real estate faculty provide supervision. Job-related studies and independent research are emphasized.
NLC, RLC ONLY

REAL ESTATE (RE) 240 (1)
SPECIAL PROBLEMS IN REAL ESTATE (16 LEC.)

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 3 hours of credit. NLC, RLC ONLY

REAL ESTATE (RE) 250 (4)
REAL ESTATE INTERNSHIP I (20 LAB.)

Prerequisites: Real Estate 130, 131, and 133 and concurrent enrollment in Real Estate 254. Also, the student must submit an application to the instructor, be interviewed, and be approved prior to registration. This course provides practical work experience in the field of real estate. Principles and skills learned in other courses are applied. The employer/sponsor and a member of the real estate faculty provide supervision. Job-related studies and independent research are emphasized.
NLC, RLC ONLY

REAL ESTATE (RE) 251 (4)
REAL ESTATE INTERNSHIP II (20 LAB.)

Prerequisite: Real Estate 130, 131, and 133 and concurrent enrollment in Real Estate 255. Also, the student must submit an application to the instructor, be interviewed, and be approved prior to registration. This course is a continuation of Real Estate 250.
NLC, RLC ONLY

REAL ESTATE (RE) 254 (2)
REAL ESTATE SEMINAR I (2 LEC.)

Prerequisites: Real Estate 130, 131, and 133 and concurrent enrollment in Real Estate 250. Preliminary interview by real estate faculty is required. This course is for students majoring in real estate. A particular area or problem beyond the scope of regularly offered courses is studied. Problems are analyzed, and projects are developed.
NLC, RLC ONLY

REAL ESTATE (RE) 255 (2)
REAL ESTATE SEMINAR II (2 LEC.)

Prerequisites: Real Estate 130, 131, and 133 and concurrent enrollment in Real Estate 251. Preliminary interview by real estate faculty is required. Business strategy and the decision-making process are applied to trends in the real estate profession. Emphasis is on the use of the intern's course knowledge and work experiences. NLC, RLC ONLY

RELIGION (REL) 101 (3)
RELIGION IN AMERICAN CULTURE (3 LEC.)

This course examines the nature of religion in America. It covers important influences from the past and characteristics of current religious groups and movements. Emphasis is on understanding the role of religion in American life. NOT AT EFC

RELIGION (REL) 102 (3)
CONTEMPORARY RELIGIOUS PROBLEMS (3 LEC.)

Both classic and recent issues are explored. Such topics as the nature of religion, the existance 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. NOT AT EFC, MVC

RELIGION (REL) 201 (3)
MAJOR WORLD RELIGIONS (3 LEC.)

This course surveys the major world religions. Hinduism, Buddhism, Judaism, Islam, and Christianity are included. The history of religions is covered, but the major emphasis is on current beliefs. Other topics may also be included, such as the nature of religion, tribal religion, and alternatives to religion. NOT AT EFC

RESPIRATORY THERAPY (RES) 137 (4)
BASIC RESPIRATORY THERAPY SKILLS AND PRACTICE I (3 LEC., 6 LAB.)

The field of respiratory therapy is introduced. The therapy and hospital environment are also presented. Instruction, observation and practice in the laboratory and in the hospital of patient care and respiratory therapy techniques are included. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES) 138 (4)
CLINICAL PRACTICE II (16 LAB.)

Prerequisite: "C" or better in all Respiratory Therapy courses. Practice in procedures related to cleaning and sterilization, periodic positive therapy, humidity and aerosol therapy, and chest physiotherapy is provided. ECC ONLY

RESPIRATORY THERAPY (RES) 141 (2)
MEDICATIONS (2 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides instruction in the identification, classification, dosage and dilution calculation, and principal and side effects of inhalational medications. The identification of other medications in common use and their possible effect on cardio-respiratory function is included. ECC ONLY

RESPIRATORY THERAPY (RES) 144 (2)
PATHOLOGY AND TREATMENT RATIONALE I (2 LEC.)

This course provides a description of the normal conditions and the deviation from normal in specific disease states with an assessment of reversability and an expression of the intent of therapy. ECC ONLY

RESPIRATORY THERAPY (RES) 145 (4)
BASIC TECHNOLOGY I (3 LEC., 4 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides instruction in specific details of design and function of respiratory therapy equipment, routine maintenance procedures, and detection and correction of malfunction. It also provides practice in adapting, applying, and modifying equipment in the patient care situation. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES)
147 (2)
CLINICAL PROCEDURES II (8.8 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. Practice in procedures related to cleaning and sterilization, periodic positive pressure therapy, humidity and aerosol therapy, and chest physiotherapy is provided. ECC ONLY

RESPIRATORY THERAPY (RES)
150 (2)
CLINICAL PROCEDURES III (16 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is a continuation of practice of procedures related to periodic positive pressure therapy, humidity and aerosol therapy, and chest physiotherapy, with emphasis on the critically ill patient. ECC ONLY

RESPIRATORY THERAPY (RES)
152 (2)
PHARMACOLOGY (2 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides instruction in the identification, classification, dosage, and principal effects and side effects of cardiopulmonary medications. Drugs affecting the cardiopulmonary system are also discussed. ECC ONLY

RESPIRATORY THERAPY (RES)
160 (3)
CLINICAL PRACTICE III (24 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is a continuation of Clinical Practice II with introduction to continuous ventilation. ECC ONLY

RESPIRATORY THERAPY (RES)
162 (4)
CLINICAL PRACTICE IV (32 LAB.)

Prerequisite: "C" or better in all Respiratory Therapy courses. Continued practice in respiratory therapy procedures with emphasis on continuous ventilation and pediatric and neonatal therapy is provided. ECC ONLY

RESPIRATORY THERAPY (RES)
164 (3)
BASIC TECHNOLOGY II (4 LEC., 6 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. A continuation of Basic Technology I with emphasis on continuous ventilation and volume ventilators. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES)
243 (3)
ADVANCED TECHNOLOGY AND INSTRUMENTATION I (2 LEC., 3 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides instruction in measurement of spirometry, pulmonary mechanics, lung volumes, and airway resistance. Emphasis is on equipment operation, testing techniques, data calculations, and interpretation. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES)
246 (3)
ADVANCED TECHNOLOGY AND INSTRUMENTATION II (2 LEC., 3 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is a continuation of Advanced Technology and Instrumentation I. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES) 249 (3)
SEMINAR AND CASE PRESENTATION(3 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides physician-directed in-depth study, presentation, and discussion of case histories involving cardiorespiratory problems. ECC ONLY

RESPIRATORY THERAPY (RES) 254 (1)
INSTRUCTION AND MANAGEMENT METHODS I (1 LEC., 1 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is designed to give the potential therapist direction and practice in education of co-workers, physicians, patients, families of patients, and departmental trainees or students. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES) 255 (1)
INSTRUCTION AND MANAGEMENT METHODS II (1 LEC., 1 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is designed to provide the potential therapist with instruction, discussion, and practice in problem-solving related to respiratory therapy department operations. Laboratory fee. ECC ONLY

RESPIRATORY THERAPY (RES) 256 (2)
INSTRUCTION AND MANAGEMENT METHODS II (2 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course is designed to provide instruction, discussion, and practice in problem solving related to respiratory therapy department operations. ECC ONLY

RESPIRATORY THERAPY (RES) 257 (3)
ADVANCED PHYSIOLOGY AND PATHOLOGY (3 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides an in-depth study of disease states related to cardiopulmonary function and the application and interpretation of related diagnostic, evaluative, and therapeutic procedures. ECC ONLY

RESPIRATORY THERAPY (RES) 260 (4)
CLINICAL PROCEDURES IV (16 LAB.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides practice in intensive care procedures, including ventilator monitoring, airway care, and weaning. Students participate in preoperative evaluation, observation of thoracic surgery, and postoperative management of thoracic surgery patients. Practice in emergency and recovery room procedures is also provided. ECC ONLY

RESPIRATORY THERAPY (RES) 261 (4)
CLINICAL PROCEDURES V (16 LAB.)

Prerequisite: A grade of "C" or better in all Respiratory Therapy courses. Practice is provided in assuming total responsibility for continuous ventilator patients. Monitoring, airway care, and weaning are all included. Students participate in pre-operative evaluation, observation of surgery, and post-operative management of thoracic surgery patients. Students also participate in pediatric intensive care, acute and chronic disease management, and cardiopulmonary rehabilitation. ECC ONLY

RESPIRATORY THERAPY (RES) 262 (2)
CLINICAL PROCEDURES VI (16 LAB.)

Prerequisite: A grade of "C" or better in all Respiratory Therapy courses. This course is the student's final exposure to critical care procedures and validation of all respiratory therapy procedures previously learned. It is the last clinical course before graduation. ECC ONLY

RESPIRATORY THERAPY (RES) 270 (2)
VENTILATOR PATIENT MANAGEMENT (2 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. The need for mechanical ventilation, complications which may incur, and basic weaning procedures are discussed. This course correlates different disease states with alternative methods of ventilator management. ECC ONLY

RESPIRATORY THERAPY (RES) 271 (2)
PEDIATRIC RESPIRATORY THERAPY (2 LEC.)

Prerequisite: "C" or better in all previous Respiratory Therapy courses. This course provides an in-depth study of fetal lung development and the cardiopulmonary disorders associated with neonates and pediatric patients. ECC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 245 (3)
SALES MANAGEMENT (48 CONTACT HOURS)

The qualities and characteristics of the sales executive are examined. Emphasis is on pricing, distribution, promotion, and brand management. The recruiting, selecting, training, and motivating of salespersons are also covered. BHC, EFC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 246 (3)
MARKETING AND MANAGEMENT CASES (48 CONTACT HOURS)

Prerequisites: Business 136 and 206. Selected case studies in marketing and management are presented. Emphasis is on business decision-making. BHC, EFC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 247 (3)
SIMULATED BUSINESS TRAINING I (3 LEC.)

This course introduces job procedures. Topics include application, interview, employer-employee relations, customer relations, company policies, and rules and regulations. Practical experiences are also included. BHC, CVC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 248 (3)
SIMULATED BUSINESS TRAINING II (3 LEC.)

This course continues Business 247. Practical experience in job responsibilities are provided. BHC, CVC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 290 (3)
FASHION BUYING (3 LEC.)

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. BHC, CVC ONLY

RETAIL DISTRIBUTION AND MARKETING (RDM) 291 (3)
FASHION MERCHANDISING (3 LEC.)

This course introduces the field of fashion. Emphasis is on its historical development and trends, career opportunities, marketers, and merchandising methods. BHC, CVC ONLY

SMALL ENGINE (SE) 124 (3)
SMALL ENGINE SERVICE PRINCIPLES (90 CONTACT HRS.)

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. CVC ONLY

SMALL ENGINE (SE) 125 (3)
SMALL ENGINE TUNE-UP (90 CONTACT HRS.)

This course includes the tune-up procedures for small engines including ignition service and carburetion theory and service. Laboratory fee. CVC ONLY

SMALL ENGINE (SE) 126 (3)
SMALL ENGINE AND TWO STROKE OVERHAUL (90 CONTACT HRS.)

Overhaul procedures for two stroke engines and drive systems as applied to small engine powered equipment are topics covered in this course. Laboratory fee. CVC ONLY

SMALL ENGINE (SE) 127 (3)
SMALL ENGINE FOUR STROKE OVERHAUL (90 CONTACT HRS.)

This course includes overhaul procedures for four stroke engines, drive systems, and hydraulic systems, as applied to small engine powered equipment. Laboratory fee. CVC ONLY

SMALL EMGINE (SE) 128 (3)
SMALL ENGINE ELECTRICAL SYSTEMS (90 CONTACT HRS.)

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. CVC ONLY

SMALL ENGINE (SE) 733 (3)
(See Cooperative Work Experience)

CVC ONLY

SMALL ENGINE (SE) 734 (4)
(See Cooperative Work Experience)

CVC ONLY

SOCIAL SCIENCE (SS) 131 (3)
AMERICAN CIVILIZATION (3 LEC.)

Theories and institutions of modern society are introduced. Psychological, historical, sociocultural, political, and economic factors are considered. The nature of the human being and the relationships of the individual are examined. Emphasis is on the national, state, and local experiences which affect daily life.

SOCIAL SCIENCE (SS) 132 (3)
AMERICAN CIVILIZATION (3 LEC.)

Prerequisite: Social Science 131. Topical studies are made of the theories and institutions of modern society.Psychological, historical, sociocultural, political, and economic factors are all considered. Emphasis is on analyzing and applying theory to life experiences. NOT AT ECC, NLC, RLC

SOCIOLOGY (SOC) 101 (3)
INTRODUCTION TO SOCIOLOGY (3 LEC.)

This course is a study of the nature of society and the foundations of group life. Topics include institutions, social change, processes, and problems.

SOCIOLOGY (SOC) 102 (3)
SOCIAL PROBLEMS (3 LEC.)

This course is a study of social problems which typically include: crime, poverty, minorities, deviancy, population, and health care. Specific topics may vary from semester to semester to address contemporary concerns.

SOCIOLOGY (SOC) 103 (3)
SEX ROLES IN AMERICAN SOCIETY (3 LEC.)

Students may register for either Sociology 103 or Psychology 103 but may receive credit for only one. Human sexuality is presented. Topics include physiological, psychological, and sociological aspects.

SOCIOLOGY (SOC) 203 (3)
MARRIAGE AND FAMILY (3 LEC.)

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.

SOCIOLOGY (SOC) 204 (3)
AMERICAN MINORITIES (3 LEC.)

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

SOCIOLOGY (SOC) 205 (3)
INTRODUCTION TO SOCIAL RESEARCH (3 LEC.)

Prerequisite: Sociology 101, Developmental Mathematics 091, or the equivalent. Principles and procedures in social research are presented. Topics include sources of data, techniques of collection, analysis, and statistical description.

SOCIOLOGY (SOC) 206 (3)
INTRODUCTION TO SOCIAL WORK (3 LEC.)

The development of the field of social work is studied. Topics include the techniques of social work and the requirements for training in social work.

SOCIOLOGY (SOC) 207 (3)
SOCIAL PSYCHOLOGY (3 LEC.)

Students may register for either Psychology 207 or Sociology 207 but may receive credit for one. Theories of individual behavior in the social environment are surveyed. Topics include the socio-psychological process, attitude formation and change,interpersonal relations, and group processes.

SOCIOLOGY (SOC) 209 (3)
SELECTED TOPICS (3 LEC.)

Prerequisite: Sociology 101 or the consent of the instructor. This is an elective course designed to deal with specific topics in sociology. Examples of topics might be: "urban sociology," "women in society," or "living with divorce." As the topics change, this course may be repeated once for credit.

SOCIOLOGY (SOC) 210 (3)
FIELD STUDIES IN AMERICAN MINORITIES (3 LEC.)

Prerequisite: Sociology 101 or Sociology 204. Experience is provided in Indian, Black, and Mexican-American community centers. Work is under professional supervision in a task-oriented setting.

SOCIOLOGY (SOC) 231 (3)
URBAN SOCIAL PROBLEMS (3 LEC.)

The sociology of social institutions is studied. Topics include urbanization, theories of formation, and the impact of urbanization on the individual.

SOLAR ENERGY TECHNOLOGY (ST) 101 (4)
ENERGY SCIENCE I (3 LEC., 3 LAB.)

This course is an introduction to Energy Science. Terms are defined, and solar radiation characteristics are described. The principles of temperature, heat transfer, and thermodynamics are included. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 102 (2)
INTRODUCTION TO SOLAR ENERGY (2 LEC.)

Solar energy is introduced. Topics include a brief history of solar energy, an overview of collector types, the conversion of solar radiation to thermal energy, and solar vocabulary. Different types of energy efficient construction, traditional and non-traditional solar applications are also covered. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 103 (2)
MATERIALS AND HANDLING (1 LEC., 2 LAB.)

This course presents the properties and handling of materials in a solar system. Topics include plumbing, sheet metal, carpentry, roofing, glazing, concrete, soldering, and welding. Problems and compatibility of different construction materials are explored. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 104 (4)
ENERGY SCIENCE II (3 LEC., 3 LAB.)

This course is a continuation of Solar Energy Technology 101. Topics include hydrostatics, hydrodynamics, and basic electrical considerations. Electromagnetic interactions, light, optics, and geography are also included. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 105 (4)
COLLECTORS AND ENERGY STORAGE (2 LEC., 4 LAB.)

Methods of collecting solar energy for heating and cooling are examined. Topics include collector types, collector parameters, and the chemical compatibility of different collector materials and fluids. Methods of storing solar energy, advantages and disadvantages of storage system construction, and exotic storage systems for use in electrical generation are also covered. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 106 (3)
INTRODUCTION TO SOLAR ENERGY (3 LEC., 1 LAB.)

Topics include a general history of solar energy and overview of collector types, converting solar radiation to thermal energy, the effects of different types of energy efficient construction, traditional and non-traditional solar applications, and a general solar vocabulary. Lab experiments are designed to demonstrate basic principles of energy conversion and to examine working models of energy conversion units. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 107 (3)
MATERIALS AND MATERIALS HANDLING (2 LEC., 3 LAB.)

This course presents the properties and handling of materials in a solar system. Topics include plumbing, sheet metal,

carpentry, roofing, glazing, concrete, soldering, and welding. Problems and compatibility of different construction materials are explored. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 201 (4)
SIZING DESIGN AND RETROFIT (3 LEC., 3 LAB.)

A solar installation is examined as a complete system. Control systems for heating, cooling, and domestic hot water are studied. Using solar equipment with conventional systems and sizing system components to meet the required load are also included. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 202 (3)
OPERATIONAL DIAGNOSIS (2 LEC., 3 LAB.)

Diagnostic instruments and calculations are explored. Common problems are examined, and malfunctioning components are isolated and repaired. Laboratory fee. NLC ONLY

SOLAR ENERGY TECHNOLOGY (ST) 203 (2)
ECONOMICS, CODES, LEGALITIES, AND CONSUMERISM (2 LEC.)

The economics of solar energy systems is presented. Emphasis is on governmental regulations. Methods of calculating costs and benefits for both active and passive systems are studied. Financing, customer relations, guarantees, and consumer protection are included.

SOLAR ENERGY TECHNOLOGY (ST) 204 (3)
TECHNICAL SURVEY OF ENERGY SOURCES (3 LEC.)

Energy resources are explored. Both present and future resources are included. Energy conservation, environmental problems, and the future of solar energy are also included.

SOLAR ENERGY TECHNOLOGY (ST) 210 (3)
NON-RESIDENTIAL APPLICATIONS AND FUTURE TECHNOLOGY (2 LEC., 3 LAB.)

This course covers the uses of solar technology for other than home heating and cooling. The course is open-ended, and materials are added as the technology changes. Laboratory fee.

SOLAR ENERGY TECHNOLOGY (ST) 803, 813 (3)
(See Cooperative Work Experience)

SPANISH (SPA) 101 (4)
BEGINNING SPANISH (3 LEC., 2 LAB.)

The essentials of grammar and easy idiomatic prose are studied. Emphasis is on pronunciation, comprehension, and oral expression. Laboratory fee.

SPANISH (SPA) 102 (4)
BEGINNING SPANISH (3 LEC., 2 LAB.)

Prerequisite: Spanish 101 or the equivalent. This course is a continuation of Spanish 101. Emphasis is on idiomatic language and complicated syntax. Laboratory fee.

SPANISH (SPA) 201 (3)
INTERMEDIATE SPANISH (3 LEC.)

Prerequisite: Spanish 102 or the equivalent or the consent of the instructor. Reading, composition, and intense oral practice are covered. Grammar is reviewed.

SPANISH (SPA) 202 (3)
INTERMEDIATE SPANISH (3 LEC.)

Prerequisite: Spanish 201 or the equivalent. This course is a continuation of Spanish 201. Contemporary literature and composition are studied.

SPANISH (SPA) 203 (3)
INTRODUCTION TO SPANISH LITERATURE (3 LEC.)

Prerequisite: Spanish 202 or the equivalent or the consent of the instructor. This course is an introduction to Spanish literature. It includes readings in Spanish literature, history, culture, art, and civilization.

SPANISH (SPA) 204 (3)
INTRODUCTION TO SPANISH LITERATURE (3 LEC.)

Prerequisite: Spanish 202 or the equivalent or the consent of the instructor. This course is a continuation of Spanish 203. It includes readings in Spanish literature, history, culture, art, and civilization.

SPEECH (SPE) 100 (1)
SPEECH LABORATORY (3 LAB.)

This course focuses on preparing speeches, reading dialogue from literature, and debating propositions. Presentations are made throughout the community. This course may be repeated for credit each semester. NOT AT RLC

SPEECH (SPE) 105 (3)
FUNDAMENTALS OF PUBLIC SPEAKING (3 LEC.)

Public speaking is introduced. Topics include the principles of reasoning, audience analysis, collection of materials, and outlining. Emphasis is on giving well prepared speeches.

SPEECH (SPE) 109 (3)
VOICE AND ARTICULATION (3 LEC.)

Students may register for either Speech 109 or Theatre 109 but may receive credit for only one of the two. The mechanics of speech are studied. Emphasis is on improving voice and pronunciation.

SPEECH (SPE) 110 (1)
FORENSIC WORKSHOP (2 LAB.)

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. NOT AT EFC, RLC

SPEECH (SPE) 201 (1)
FORENSIC WORKSHOP (2 LAB.)

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. NOT AT EFC, RLC

SPEECH (SPE) 205 (3)
DISCUSSION AND DEBATE (3 LEC.)

Public discussion and argumentation are studied. Both theories and techniques are covered. Emphasis is on evaluation, analysis, and logical thinking. NOT AT EFC, RLC

SPEECH (SPE) 206 (3)
ORAL INTERPRETATION (3 LEC.)

Techniques of analyzing various types of literature are examined. Practice is provided in preparing and presenting selections orally. Emphasis is on individual improvement.

SPEECH (SPE) 208 (3)
GROUP INTERPRETATION (3 LEC.)

Prerequisite: Speech 105 and 206. 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 the group performance of the literature. Although not an acting class, practical experience in sharing selections from fiction and non-fiction with audiences will be offered.

SURGICAL TECHNOLOGY (SGT) 140 (2)
MEDICAL TERMINOLOGY (2 LEC.)

The origin and structure of medical terms are studied. Emphasis is on building a medical vocabulary. ECC ONLY

SURGICAL TECHNOLOGY (SGT) 141 (8)
OPERATING ROOM TECHNIQUES (6 LEC., 10 LAB.)

Prerequistes: Admission to the Surgical Technology Program, credit or concurrent enrollment in Biology 120 and 121, or Biology 123. This course is an introduction to the operating room. The basic principles of asepsis, sterilization, preparation care of surgical supplies and equipment and ethical-legal implications studied. Also the basic care and safety of the patient in the operating room is presented. Laboratory fee. ECC ONLY

SURGICAL TECHNOLOGY (SGT) 152 (8)
OPERATING ROOM PROCEDURES (4 LEC., 20 LAB.)

Prerequisites: A grade of "C" in Surgical Technology 140 and 141, credit or concurrent enrollment in Biology 120 and 121, or Biology 123. In this course the student expands the basic principles from Surgical

Technology 141 to include specific patient preparation, medication, instrumentation, and complications related to selected surgical procedures. Laboratory fee. ECC ONLY

SURGICAL TECHNOLOGY (SGT) 153 (7)
CLINICAL PROCEDURES (35 LAB.)

Prerequisites: A grade of "C" in Surgical Technology 140, 141, and 152 and successful completion of curriculum requirements. This course provides the practical clinical experience in the operating room. An effective level of practice and knowledge must be demonstrated by the student in selected surgical procedures. ECC ONLY

SURGICAL TECHNOLOGY (SGT) 154 (2)
SEMINAR (2 LEC.)

Prerequisites: A grade of "C" in Surgical Technology 140, 141, and 152 and successful completion of curriculum requirements. This course is a study of special problems which correlate with the individual needs of students during clinical practice. Continuing education is discussed in this seminar. ECC ONLY

SURGICAL TECHNOLOGY (SGT) 160 (8)
OPERATING ROOM PROCEDURES FOR REGISTERED NURSES (4 LEC., 20 LAB.)

Prerequisites: A grade of "C" in Surgical Technology 140 and 141 and current licensure by the Texas State Board of Nurse Examiners. In this course the student expands the principles presented in Surgical Technology 141. Included are specific patient preparation, roles, and legal and ethical responsibilities of operating room nursing. Roles of the registered nurse in pre-operative and post-operative visitation and in complications of surgery are presented. ECC ONLY

THEATRE (THE) 100 (1)
REHEARSAL AND PERFORMANCE (4 LAB.)

Prerequisite: To enroll in this course, a student must be accepted as a member of the cast or crew of a major production. Participation in the class will include the rehearsal and performance of the current theatrical presentation of the division. This course may be repeated for credit.

THEATRE (THE) 101 (3)
INTRODUCTION TO THE THEATRE (3 LEC.)

The various aspects of theatre are surveyed. Topics include plays, playwrights, directing, acting, theatres, artists, and technicians.

THEATRE (THE) 102 (3)
COMTEMPORARY THEATRE (3 LEC.)

This course is a study of the modern theatre and cinema as art forms. The historical background and traditions of each form are included. Emphasis is on understanding the social, cultural, and aesthetic significance of each form. A number of modern plays are read, and selected films are viewed.

THEATRE (THE) 103 (3)
STAGECRAFT I (2 LEC., 3 LAB.)

The technical aspects of play production are studied. Topics include set design and construction, stage lighting, make-up, costuming, and related areas.

THEATRE (THE) 104 (3)
STAGECRAFT II (2 LEC., 3 LAB.)

Prerequisite: Theatre 103 or the consent of the instructor. This course is a continuation of theatre 103. Emphasis is on individual projects in set and lighting design and construction. The technical aspects of play production are explored further.

THEATRE (THE) 105 (3)
MAKE-UP FOR THE STAGE (3 LEC.)

The craft of make-up is explored. Both theory and practice are included. Laboratory fee.

THEATRE (THE) 106 (3)
ACTING I (2 LEC., 3 LAB.)

The theory of acting and various exercises are presented. Body control, voice, pantomime, interpretation, characterization, and stage movement are included. Both individual and group activities are used. Specific roles are analyzed and studied for stage presentation.

THEATRE (THE) 107 (3)
ACTING II (2 LEC., 3 LAB.)

Prerequisite: Theatre 106 or the consent of the instructor. This course is a continuation of Theatre 106. Emphasis is on complex characterization, ensemble acting, stylized acting, and acting in period plays.

THEATRE (THE) 108 (3)
MOVEMENT FOR THE STAGE (2 LEC., 3 LAB.)

Movement is studied as both a pure form and as a part of the theatre arts. It is also presented as a technique to control balance, rhythm, strength, and flexibility. Movement in all the theatrical forms and in the development of characterization is explored. This course may be repeated for credit.

THEATRE (THE) 109 (3)
VOICE AND ARTICULATION (3 LEC.)

Students may register for either Speech 109 or Theatre 109 but may receive credit for only one of the two. Emphasis is on improving voice and pronunciation.

THEATRE (THE) 110 (3)
HISTORY OF THEATRE I (3 LEC.)

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.

THEATRE (THE) 111 (3)
HISTORY OF THEATRE II (3 LEC.)

Theatre is surveyed from the 17th century through the 20th century. The theatre is studied in each as a part of the total culture of the period.

THEATRE (THE) 112 (3)
BEGINNING DANCE TECHNIQUE IN THEATRE (2 LEC., 3 LAB.)

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. NOT AT NLC

THEATRE (THE) 113 (3)
INTERMEDIATE DANCE (2 LEC., 3 LAB.)

Prerequisite: Theatre 112 or the consent of 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. NOT AT NLC

THEATRE (THE) 115 (2)
MIME (1 LEC., 2 LAB.)

Prerequisite: Theatre 108. Mime is studied. Both the expressive significance and techniques of mime are included. NOT AT BHC, ECC, NLC

THEATRE (THE) 199 (1)
DEMONSTRATION LAB (1 LAB.)

This course provides practice before a live audience of theory learned in theatre classes. Scenes studied in various drama classes are used to show contrast and different perspectives. This course may be repeated for credit.

THEATRE (THE) 201 (3)
TELEVISION PRODUCTION I (2 LEC., 3 LAB.)

Station organization, studio operation, and the use of studio equipment are introduced. Topics include continuity, camera, sound, lights, and video-tape recording. CVC, EFC, ECC ONLY

THEATRE (THE) 202 (3)
TELEVISION PRODUCTION II (2 LEC., 3 LAB.)

Prerequisite: Theatre 201. This course is a continuation of Theatre 201. Emphasis is on the concept and technique of production in practical situations. CVC, EFC, ECC ONLY

THEATRE (THE) 203 (3)
BROADCASTING
COMMUNCIATIONS I (3 LEC., 2 LAB.)

The nature and practice of broadcasting are covered. Basic techniques of radio and television studio operations are introduced.
NOT AT MVC, NLC, RLC

THEATRE (THE) 204 (3)
BROADCASTING
COMMUNICATIONS II (3 LEC., 2 LAB.)

This course is a continuation of Theatre 203. Emphasis is on radio and television as mass media and practical applications in both radio and television. NOT AT MVC, NLC, RLC

THEATRE (THE) 205 (3)
SCENE STUDY I (2 LEC., 3 LAB.)

Prerequisite: Theatre 106 and 107. This course is a continuation of Theatre 107. Emphasis is on developing dramatic action through detailed study of the script. Students deal with stylistic problems presented by the staging of period plays and the developent of realism. Rehearsals are used to prepare for scene work.

THEATRE (THE) 207 (3)
SCENE STUDY II (2 LEC., 3 LAB.)

Prerequisite: Theatre 205. This course is a continuation of Theatre 205. Emphasis is on individual needs of the performer. Rehearsals are used to prepare for scene work.

THEATRE (THE) 208 (3)
INTRODUCTION TO TECHNICAL DRAWING (2 LEC., 3 LAB.)

Basic techniques of drafting are studied. Isometrics, orthographic projections, and other standard procedures are included. The emphasis is on theatrical drafting, including groundplans, vertical sections, construction elevations, and spider perspective.

THEATRE (THE) 209 (3)
LIGHTING DESIGN (2 LEC., 3 LAB.)

Prerequisite: Theatre 103 and 104. The design and techniques of lighting are covered. Practical experience in departmental productions is required for one semester. NOT AT EFC, ECC

THEATRE (THE) 235 (3)
COSTUME HISTORY (3 LEC.)

Fashion costume and social customs are examined. The Egyptian, Greek, Roman, Gothic, Elizabethan, Victorian, and Modern periods are included.

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 140 (3)
INTRODUCTION TO DEAFNESS (3 LEC., 1 LAB.)

The psychology and history of educating the deaf are introduced. Emphasis is on the psychological, social, emotional, and occupational aspects of deafness. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 141 (4)
BEGINNING SIGN LANGUAGE (3 LEC., 2 LAB.)

Prerequisite: Majors in Training Paraprofessionals for the Deaf should enroll concurrently in Training Paraprofessionals for the Deaf 142. Sign language and fingerspelling are introduced. Practice and experience in developing expressive and receptive skills are provided. Emphasis is on mastering expressive skills. Laboratory fee. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 142 (3)
COMMUNICATION THEORY (3 LEC.)

Basic communication methods used by the deaf are explored. Emphasis is on the interrelationship of all language methods and the concept of total communication, including theories, ideas, methods of language, communication, and English. (This course is not a sign language course.) EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 143 (4)
INTERMEDIATE SIGN LANGUAGE (3 LEC., 2 LAB.)

Prerequisite: Training Paraprofessionals for the Deaf 141 for Training Paraprofessionals for the Deaf majors and Training Paraprofessionals for the Deaf 142 for all students. Receptive and expressive fingerspelling skills are increased. Basic vocabulary is expanded, and idioms are introduced. Emphasis is on mastering receptive skills. Laboratory fee. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 145 (3)
CLASSROOM MANAGEMENT (2 LEC., 2 LAB.)

Prerequisite: Training Paraprofessionals for the Deaf 140. Techniques of effective classroom management are studied for nursery, elementary, and secondary school. Emphasis is on interpersonal relationships, team-teaching, and behavior management. The role of the teacher aide and the teacher aide/interpreter in the school setting is defined. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 146 (2)
THE DEAF ADULT (2 LEC.)

Prerequisite: Training Paraprofessionals for the Deaf 140. This course focuses on techniques to develop the social and work behaviors of the deaf. Experiences are provided in working with adult deaf in group interaction and in developing business and social skills. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 147 (3)
LANGUAGE DEVELOPMENT OF THE DEAF (3 LEC.)

The language development of deaf persons is studied. The period from infancy to adulthood is included. The importance of family, community, and school relationships is stressed. Various methods and materials used in developing language are presented. An overview of learning theory and normal language acquisition is also included. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 148 (1)
RECEPTIVE FINGERSPELLING (2 LAB.)

Prerequisites: Training Paraprofessionals for the Deaf 141, 143, or concurrent enrollment in Training Paraprofessionals for the Deaf 240. This course increases the student's ability to read fingerspelling. Video tapes are used to demonstrate fingerspelling — starting with two-letter words and progressing to words of several syllables. These words are presented individually as well as in sentences. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 230 (4)
ETHICS AND SPECIFICS OF INTERPRETING (3 LEC., 2 LAB.)

Prerequisite: Training Paraprofessionals for the Deaf 141 or the consent of the instructor. This class focuses on interpreter protocol, i.e., manner of dress, code of ethics, language level. The student will learn about the preparation and training to become an interpreter for the deaf in different settings. Examples of these settings are legal, religious, vocational, medical, educational, counseling and rehabilitation. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 240 (4)
ADVANCED SIGN LANGUAGE (3 LEC., 2 LAB.)

Prerequisites: Training Paraprofessionals for the Deaf 141, 142, and 143. This course is a continuation of training in sign language. Practical experiences are included. Increased ability in both receptive and expressive areas is developed. The ability to move from one kind of sign language to another kind is stressed, and emphasis is on mastering Ameslan. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 241 (4)
AUDIOMETRY (3 LEC., 2 LAB.)

Prerequisite: 15 to 20 hours of Training Paraprofessionals for the Deaf courses or the consent of the instructor. A study of the uses of auditory equipment with the deaf in all situations. Includes instruction combined with practicum experiences in utilization of various types of group and individual auditory equipment. Training in techniques of utilization of equipment and materials to enable the deaf to respond meaningfully to their environments via the auditory channel. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 242 (3)
MEDIA FOR THE DEAF (2 LEC., 2 LAB.)

All types of media are surveyed. Emphasis is on specialized uses in a classroom for the deaf and on media production. Practice is provided in the use and maintenance of all media. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 247 (3)
SPECIAL PROBLEMS IN DEAFNESS (3 LEC.)

Prerequisite: The consent of the instructor. Various topics are studied as demand warrants. Examples include residential care, introduction to rehabilitation, and the deaf/blind. This course may be repeated for credit when topics vary. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 248 (3)
REHABILITATION OF THE MULTIPLY HANDICAPPED DEAF (3 LEC., 1 LAB.)

Prerequisite: Training Paraprofessionals for the Deaf 140. An overview of other handicapping conditions accompanying deafness. Emphasis 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. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 250 (3)
REVERSE INTERPRETING (3 LEC.)

Prerequisite: Training Paraprofessionals for the Deaf 240. This course is designed for the advanced sign language student. Reverse skills are developed and practiced through the use of video tapes (ranging from manual English to Ameslan), audio tapes and live subjects. EFC ONLY

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 802 (2)
(See Cooperative Work Experience)

TRAINING PARAPROFESSIONALS FOR THE DEAF (TPD) 803 (3)
(See Cooperative Work Experience)

TRANSPORTATION TECHNOLOGY (TRT) 144 (3)
INTRODUCTION TO TRANSPORTATION (3 LEC.)

This course is an overview of specialized fields within the transportation industry. The role of transportation in modern society is identified. Other topics include community needs, the philosophy of transportation, and the future of transportation.

TRANSPORTATION TECHNOLOGY (TRT) 145 (3)
INTRODUCTION TO RATES AND TARIFFS (3 LEC.)

Special emphasis is placed on present-day transportation modes, carrier pricing systems documentation, and federal and state regulation policies. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 146 (3)
TRANSPORTATION AND TRAFFIC MANAGEMENT (3 LEC.)

This course is for students majoring in transportation technology. It emphasizes current transportation methods. Included are carrier services, carrier pricing systems, documentation, carrier liability, claims, import and export procedures, and governmental regulations. The course is designed to prepare students to take the certification examinations of the American Society of Traffic and Transportation.

TRANSPORTATION TECHNOLOGY (TRT) 147 (3)
ECONOMICS OF TRANSPORTATION (3 LEC.)

Prerequisite: Transportation Technology 146. The economic significance of transportation is studied. Topics include the rationale of pricing, the economics of regulation, subsidies and coordination, and interagency control. This course is designed to prepare students to take the certification examinations of the American Society of Traffic and Transportation. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 148 (3)
GOVERNMENT POLICIES IN TRANSPORTATION (3 LEC.)

Federal, state, and local government roles and policies in transportation are explored. Included are policy making, subsidy, taxation, and controls. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 240 (3)
INTERSTATE COMMERCE LAW I (3 LEC.)

Prerequisite: Transportation Technology 147. Principles of transportation regulation are studied. Topics include the framework of regulation, regulatory acts, and administrative agencies. The regulatory policies of the Interstate Commerce Commission, the Civil Aeronautics Board, and the Federal Maritime Commission are also included. This course is designed to prepare students to take the certifying examinations of the American Society of Traffic and Transportation and the Interstate Commerce Commission. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 241 (3)
INTERSTATE COMMERCE LAW II(3 LEC.)

Prerequisite: Transportation Technology 240. Rules and regulations covering the practice and procedure of federal agencies are studied. The agencies include the Interstate Commerce Commission, the Civil Aeronautics Board, and the Federal Maritime Administration. Pleadings, rules of evidence, rules of ethics, and judicial review are covered. This course is designed to prepare students to take the certifying examinations of the American Society of Traffic and Transportation and the Interstate Commerce Commission. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 249 (3)
APPLIED RATES AND TARIFFS (3 LEC.)

Prerequisite: Transportation Technology 145. This course is an analytical study of transportation pricing structures. Special emphasis is given to the methodology for construction of carrier tariffs, the development of freight rates, and special services provided by carriers. This course is designed to develop skills leading to certification examinations of The American Society of Traffic and Transportation. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 250 (1)
STUDIES IN TRANSPORTATION TECHNOLOGY (1 LEC.)

This course provides the student an opportunity to explore selected topics in the field of transportation. The course may be repeated with a different emphasis for a maximum of nine hours of credit. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 287 (3)
PHYSICAL DISTRIBUTION MANAGEMENT I (3 LEC.)

The management and organization of physical distribution are studied. Emphasis is on decision-making in inventory control, warehousing, packaging, and material handling. The analysis of location and international distribution and transport systems are also covered. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 288 (3)
PHYSICAL DISTRIBUTION MANAGEMENT II (3 LEC.)

Relationships in the management of physical distribution and the market are studied. Topics include market environment, distribution channels and systems, cost planning and analysis, financial control, and system design. EFC ONLY

TRANSPORTATION TECHNOLOGY (TRT) 713, 803, 813 (3)
(See Cooperative Work Experience)

VOCATIONAL NURSING (VN) 130 (3)
ANATOMY AND PHYSIOLOGY (50 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The theory on structure and function of the body and its systems is studied. This is a 12-week course, 50 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 131 (3)
PHARMACOLOGY (52 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. This course focuses on drugs. The classification, calculation, and administration techniques of drugs are all included. Emphasis is on the effects of drugs. This is a 13-week course, 52 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 132 (2)
NUTRITION (32 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. In this course proper nutrition for good health is presented. Diet therapy is included. This is a 7-week course, 32 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 133 (1)
GERIATRICS (12 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The older person is studied. Physiological, psychological, social, and emotional conditions are included. This a 5-week course, 12 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 134 (1)
PROFESSIONAL VOCATIONAL ADJUSTMENT (18 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The meaning of "vocational nurse" is introduced. The requirements, expectations, and opportunities of vocational nursing are explored. This is a 6-week course; 18 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 135 (2)
MENTAL HEALTH AND MENTAL ILLNESS (34 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The significance of good mental health is stressed as it relates to individual needs. The effects, treatment, and nursing care of mental illness are included. This is a 6-week course, 34 clock hours.

VOCATIONAL NURSING (VN) 136 (1)
MICROBIOLOGY (18 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The causes of illness are examined. Emphasis is on the importance of maintaining cleanliness to control disease. This is a 6-week course, 18 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 137 (7)
NURSING SKILLS (4 LEC., 14 LAB., 299 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The basic theory of vocational nursing is studied, and vocational nursing skills are practiced in a classroom-lab-hospital setting. This is a 17-week course, 299 clock hours. Laboratory fee. ECC ONLY

VOCATIONAL NURSING (VN) 138 (1)
INTRODUCTION TO MATERNITY NURSING (15 CONTACT HOURS)

Prerequisite: Admission to the Vocational Nursing Program. The theory of obstetrics is introduced. This is a 5-week course, 15 clock hours. ECC ONLY

VOCATIONAL NURSING (VN) 139 (1)
MATERNITY AND NEWBORN (38 CONTACT HOURS)

Prerequisite: Successful completion of all spring semester courses in Vocational Nursing. This course introduces the study of the family and related subjects, such as human development. Emphasis is on pregnancy, childbirth, postnatal care, and the newborn. This is a 7-week course, 38 clock hours. Students not completing this course successfully will be dropped from the program. ECC ONLY

VOCATIONAL NURSING (VN) 140 (2)
PEDIATRICS (34 CONTACT HOURS)

Prerequisite: Successful completion of all spring semester courses in Vocational Nursing. This course covers health, growth periods, and diseases during childhood. This is a 6-week course, 34 clock hours. Students not completing this course successfully will be dropped from the program. ECC ONLY

VOCATIONAL NURSING (VN) 141 (8)
CLINICAL EXPERIENCE (509 CONTACT HOURS)

Prerequisite: Successful completion of all spring semester courses in Vocational Nursing. The theory and skills of nursing care are applied. The physical, emotional, and spiritual needs of the patient are included. This is a 16-week course, 509 clock hours. Students not meeting the clinical requirements will be dropped from the program. ECC ONLY

VOCATIONAL NURSING (VN) 142 (6)
MEDICAL AND SURGICAL NURSING (100 CONTACT HOURS)

Prerequisite: Successful completion of all spring and summer semester courses in Vocational Nursing. This course is a study of medical and surgical conditions involving the body systems. Emphasis is on nursing care, observations, reporting, and recording. This is an 18-week course, 100 clock hours. Students not completing this course successfully will be dropped from the program. ECC ONLY

VOCATIONAL NURSING (VN) 143 (9)
CLINICAL EXPERIENCE (462 CONTACT HOURS)

Prerequisite: Successful completion of all previous Vocational Nursing courses. The theory and skills of vocational nursing are applied in a hospital. Emphasis is on safe, competent nursing care. This is an 18-week course, 462 clock hours. Students who do not meet the requirements of this course will be dropped from the program. ECC ONLY

WELDING (WE) 141 (1)
OXYACETYLENE WELDING II (1 LEC., 7 LAB.)

This course covers the use of oxyacetylene equipment for welding sheet, thin plate, and small diameter pipe in all positions. It is designed to enable students to meet general industrial requirements. Laboratory fee. MVC ONLY

WELDING (WE) 142 (1)
OXYACETYLENE BRAZE WELDING (1 LEC., 7 LAB.)

This is a basic manipulative skills training course designed to enable a student to meet general industrial requirements while using oxyacetylene equipment for braze welding carbon steels and coat-irons. Laboratory fee. MVC ONLY

WELDING (WE) 143 (1)
SHIELDED METAL-ARC WELDING I (1 LEC., 7 LAB.)

This is a basic manipulative skills training course designed to develop general maintenance and production welding abilities for using manual alternating current shielded metal-arc (stick) welding equipment on ferrous metal in the flat positon. Laboratory fee. MVC ONLY

WELDING (WE) 144 (1)
SHIELDED METAL-ARC WELDING II (1 LEC., 7 LAB.)

This is a basic manipulative skills training course designed to develop general maintenance and production welding abilities for using manual direct current shielded metal-arc (stick) welding equipment on ferrous metal in the flat position. Laboratory fee. MVC ONLY

WELDING (WE) 145 (2)
PLATE WELDING I (1 LEC., 7 LAB.)

Prerequisite: Welding 143 and Welding 144, or equivalent. This is a basic manipulative skills training course designed to develop general maintenance and production welding abilities while using the manual shielded metal-arc (stick) process for performing groove and fillet welds with ferrous metals in all positions. Laboratory fee. MVC ONLY

WELDING (WE) 146 (1)
PLASMA — ARC WELDING I (1 LEC., 7 LAB.)

Prerequisite: Welding 140, 141, and 145; or equivalent. This is a basic manipulative skills training course designed to enable the student to set up the equipment for flat position plasma-arc welding on stainless steel and aluminum. Laboratory fee. MVC ONLY

WELDING (WE) 147 (2)
MICRO-WIRE WELDING I (1 LEC., 7 LAB.)

This is a basic manipulative skills training course designed to enable the student to meet general industrial requirements while using the micro-wire-arc (MIG) welding process in the flat position for sheet metal and thin gage plate. This course is open to both the beginning student and experienced welder. Laboratory fee. MVC ONLY

WELDING (WE) 148 (1)
SEMIAUTOMATIC ARC WELDING I (1 LEC., 7 LAB.)

This is a basic manipulative skills training course designed to enable the student to meet general industrial requirement while using the semiautomatic arc welding process (large wire CO2 and flux core) for joining heavier plates in the flat position. This course is open to both the beginning student and experienced welders. Laboratory fee. MVC ONLY

WELDING (WE) 149 (2)
GAS TUNGSTEN ARC WELDING (TIG) I (1 LEC., 7 LAB.)

Prerequisite: Welding 141 and 142; or equivalent. This is a basic manipulative skills training course designed to enable a student to meet general industrial requirements while using the gas tungsten-arc welding process for joining thin gauge material. Laboratory fee. MVC ONLY

WELDING (WE) 240 (2)
PIPE WELDING I— (SHIELDED METAL-ARC) (1 LEC., 7 LAB.)

Prerequisite: Welding 145 or equivalent. This is a manipulative skills training course designed to introduce the student to the basic manual shielded metal-arc pipe welding techniques, material preparation and set up procedures in accordance with section IX of the ASME boiler and pressure vessel codes. Laboratory fee. MVC ONLY

WELDING (WE) 241 (2)
PLATE WELDING II (1 LEC., 7 LAB.)

Prerequisite; Welding 145 or equivalent.This is an advanced manipulative skills level course designed to enable the student to qualify for weld quality testing in accordance with standards established by the American Welding Society for electric arc welding. Laboratory fee. MVC ONLY

WELDING (WE) 242 (2)
GAS TUNGSTEN — ARC (1 LEC., 7 LAB.)

Prerequisite: Welding 149 or equivalent. This is an advanced manipulative skills level training course designed to enable the student to qualify on the various qualification tests in accordance with industrial requirements. Laboratory fee.

WELDING (WE) 243 (2)
SEMIAUTOMATIC ARC WELDING II (1 LEC., 7 LAB.)

Prerequisite: Welding 149 or equivalent. This is an advanced manipulative skills level training course designed to enable the student to qualify on the various qualification tests, as required by industry, in all positions with the semiautomatic micro-wire and flux cored arc welding process. Laboratory fee. MVC ONLY

WELDING (WE) 244 (2)
MICRO-WIRE WELDING II (1 LEC., 7 LAB.)

Prerequisite: Welding 147, 148, and 243; or equivalent. This is an advanced skills level training course designed to enable the student to weld pipe in the horizontal and vertical fixed positions with sufficient skill to pass the API and ASME qualification test using the micro-wire arc welding process. Laboratory fee. MVC ONLY

WELDING (WE) 245 (1)
PLASMA-ARC WELDING II (1 LEC., 7 LAB.)

Prerequisite: Welding 146 or equivalent. This is an advanced skills level training course designed to enable the student to pass applicable qualification codes with the plasma arc welding process while joining carbon steel, stainless steel, and aluminum in all positions. Laboratory fee. MVC ONLY

WELDING (WE) 246 (2)
PIPE WELDING II (1 LEC., 7 LAB.)

Prerequisite: Welding 143, 144, 145, and 240 or equivalent. This is an advanced skills level training course designed to enable the student to pass code qualification tests for carbon steel pipe welding in accordance with section IX of the ASME Boiler and Pressure Vessel Codes, or on request, Standard E1104 from the American Petroleum Institute. Laboratory fee. MVC ONLY

WELDING (WE) 247 (1)
MANUAL SUBMERGED ARC WELDING (1 LEC., 7 LAB.)

Prerequisite: Welding 147 and 149; or equivalent. This is a manipulative skills level training course designed to familiarize the student with the variables concerning industrial applications of the submerged-arc welding process. On completion of this course the student will have a practical level of technical knowledge and ability for meeting general production welding requirements. Laboratory fee. MVC ONLY

WELDING (WE) 248 (2)
SPECIALIZED WELDING APPLICATION I (1 LEC., 7 LAB.)

This is an advanced skills development course designed to allow the student to program his own specialization area course objectives under instructional supervision. This will allow a student to upgrade his present skills development level in order to meet employment reclassification requirements, or allow him to meet job classification requirements of a selected potential employer. This course is open only to those students in advanced standing or who are presently employed and in need of additional skill development. Laboratory fee. This course may be repeated for credit. MVC ONLY

WELDING (WE) 249 (2)
SPECIFIC CODE COMPETENCY PREPARATION (1 LEC., 7 LAB.)

This is an advanced skills level training course designed for welding operators wishing to qualify under specific welding codes or specifications. The training during this course will be conducted under instructional supervision in order to enable the operator to correct any faulty techniques he may have developed. Any specific code/codes involved must be specified when applying for admission to such training. This course is open only to experienced welding operators or students in advance standing. Laboratory fee. This course may be repeated for credit. MVC ONLY

WELDING (WE) 250 (2)
SPECIALIZED WELDING APPLICATION II (1 LEC., 7 LAB.)

Prerequisite: Welding 248. A continuation of Welding 248-Specialized Welding Application I. Laboratory fee. This course may be repeated for credit.

WELDING (WE) 251 (3)
APPLIED WELDING METALLURGY (3 LEC.)

Prerequisite: Welding 150, 6 credit hours, welding lab courses. A theory course to continue, in more depth, than material covered in Welding 150. Designed to assist the student to improve communication skills with welding engineers and metallurgists. Includes a study of welding processes and their relationship to and effect upon metals and why they can/cannot be used for certain applications: the theory of heat-treating and its many uses: the value of preheat, inter pass temperature, and post heat in welding procedures. Designed to increase students knowledge of what metals are made of and why they are used for specific industrial applications; to strengthen the knowledge and understanding of the grain structure of

metals and the effect that welding processes have on them.

WELDING (WE) 701, 711, 801, 811 (1)
(See Cooperative Work Experience)

WELDING (WE) 702, 712, 802, 812 (2)
(See Cooperative Work Experience)

WELDING (WE) 703, 713, 803, 813 (3)
(See Cooperative Work Experience)

WELDING (WE) 704, 714, 804, 814 (4)
(See Cooperative Work Experience)

WELDING (WE) 101 (3)
BASIC WELDING AND CUTTING PRACTICES (1 LEC., 5 LAB.)

This course is for students who need welding on the job, such as in auto body, auto mechanics, or air conditioning. Emphasis is on setting up and using oxyfuel equipment. Cutting up to and including $\frac{3}{8}$" mild steel, welding up to and including $\frac{1}{8}$" 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 $\frac{1}{4}$" through $\frac{3}{8}$" mild steel in the flat and vertical position using E60's series electrodes is covered. Laboratory fee. MVC ONLY

WELDING (WE) 102 (3)
OXYFUEL WELDING AND CUTTING (1 LEC., 5 LAB.)

The use of oxyfuel welding and cutting equipment is studied and practiced. Emphasis is on welding up to and including $\frac{1}{8}$" mild steel sheet in flat and vertical positions, brazing mild steel and cast iron, and using fuel gases for heating and cutting thin and thick metal. Laboratory fee. MVC ONLY

WELDING (WE) 103 (3)
INTRODUCTION TO SHIELDED METAL ARC WELDING—PLATE (1 LEC., 5 LAB.)

The use of shielded metal arc welding (stick) of plate is covered. Emphasis is on making prepared and unprepared welds in mild steel plate. Both flat and vertical positions using E60's through E70's series electrodes are included. Laboratory fee. MVC ONLY

WELDING (WE) 104 (3)
INTRODUCTION TO SHIELDED METAL ARC WELDING—PIPE (1 LEC., 5 LAB.)

The use of shielded metal arc welding (stick) of pipe is covered. Emphasis is on welding 3" through 10" schedule 40 mild steel pipe. The vertical, horizontal rolled, and horizontal fixed positions using E60's through E70's series electrodes are included. Laboratory fee. MVC ONLY

WELDING (WE) 105 (3)
ADVANCED SHIELDED METAL ARC WELDING—PLATE AND PIPE (2 LEC., 4 LAB.)

Prerequisites: Welding 103 and 104 or the equivalent. This course presents the use of shielded metal arc welding on plate and pipe. Emphasis is on passing the guided bend test in plate and pipe in accordance with ASME qualifications for $\frac{3}{16}$" through $\frac{3}{4}$" thickness range in all positions. Laboratory fee. MVC ONLY

WELDING (WE) 120 (3)
OXYACETYLENE WELDING (1 LEC., 5 LAB.)

This course meets general industrial requirements and focuses on setting up and using equipment for welding and cutting sheet and thin plate and small diameter pipe. All positions are included. Braze welding carbon steels and coat-irons are also included. This course is equivalent to Welding 140, 141, and 142. Laboratory fee. MVC ONLY

WELDING (WE) 121 (4)
INTRODUCTION TO SHIELDED METAL-ARC PLATE WELDING (1 LEC., 7 LAB.)

Welding for general maintenance and production is the emphasis of this course. The use of manual alternating and direct current shielded metal-arc welding is included. Welding on ferrous metal in flat position and performing groove and fillet welds is covered. This course is equivalent to Welding 143, 144, and 145. Laboratory fee. MVC ONLY

WELDING (WE) 122 (3)
SEMIAUTOMATIC WELDING I (1 LEC., 5 LAB.)

The semiautomatic and micro-wire arc welding process in the flat position is presented. This course is designed to enable students to meet general industrial requirements. This course is equivalent to Welding 147 and 148. Laboratory fee. MVC ONLY

WELDING (WE) 123 (4)
COMBINATION ARC WELDING I (1 LEC., 7 LAB.)

Prerequisites: Welding 141, 142, and 145 or the equivalent. This course includes basic and advanced manipulative skills. it is designed to enable students to qualify for weld quality testing in accordance with the standards established by the American Welding Society for electric arc welding. This course is equivalent to Welding 149 and 241. Laboratory fee. MVC ONLY

WELDING (WE) 124 (4)
COMBINATION PIPE WELDING I (1 LEC., 7 LAB.)

Prerequisites: Welding 145 and 149 or the equivalent. Welding techniques for the basic manual shielded metal-arc pipe are stressed. The course is designed to enable students to qualify on the various qualifications tests, as required by industry, in all positions with the semiautomatic micro-wire and flux cored arc welding process. This course is equivalent to Welding 240 and 243. Laboratory fee. MVC ONLY

WELDING (WE) 125 (4)
COMBINATION GAS SHIELDED ARC WELDING (1 LEC., 7 LAB.)

Prerequisites: Welding 147, 148, 149 and 243 or the equivalent. This course is designed to enable students to qualify on the various qualification tests in accordance with industrial requirements. This course also enables the student to weld pipe in the horizontal and vertical fixed positions with sufficient skill to pass the API and ASME qualification test using the micro-wire arc welding process. This course is equivalent to Welding 242 and 244. Laboratory fee. MVC ONLY

WELDING (WE) 130 (3)
PATTERN LAYOUT (2 LEC., 3 LAB.)

Prerequisite: Blueprint Reading 177 or the equivalent or the consent of the instructor. The preparation and development of patterns are covered. The use of templets for general fabrication of sheet metal and structural materials is also covered. Laboratory fee.

WELDING (WE) 140 (1)
OXYACETYLENE WELDING I (1 LEC., 7 LAB.)

This course focuses on setting up and using equipment for flat position welding and cutting. On completion, students should be able to meet general industrial requirements for using oxyacetylene equipment in the flat position. Laboratory fee. EFC, MVC ONLY

WELDING (WE) 201 (3)
GAS METAL ARC WELDING—PLATE AND PIPE (2 LEC., 4 LAB.)

This is a basic course in the set-up and use of gas metal arc welding (MIG) of plate and pipe. Emphasis will be on setting up and using GMAW welding equipment in welding 16 ga. through ½" mild steel, stainless steel and aluminum, plate in the flat and vertical position; and setting up and using GMAW welding equipment to weld 3" through 10" schedule 40 mild steel pipe in the vertical, horizontal rolled and horizontal fixed positions. Laboratory fee. MVC ONLY

WELDING (WE) 202 (3)
GAS TUNGSTEN ARC WELDING—PLATE AND PIPE (2 LEC., 4 LAB.)

This is a basic course in the set-up and use of gas tungsten arc welding (TIG) of plate and pipe. Emphasis will be on setting up and using GTAW equipment in welding 18 ga. through ⅜" mild steel, stainless steel, aluminum and other exotic metals in the flat and vertical positions; welding 1" thin wall tubing through 3" schedule 40 mild steel and stainless steel pipe in the vertical, horizontal rolled and horizontal fixed positions. Laboratory fee. MVC ONLY

WELDING (WE) 203 (3)
ADVANCED GAS TUNGSTEN ARC WELDING—PLATE AND PIPE (2 LEC., 4 LAB.)

Prerequisite: Welding 202 or equivalent. This is an advanced theory and skill course in the use of gas tungsten arc welding of plate and pipe. Emphasis will be on passing the qualification test in plate and pipe in any metal and any size and thickness range in all positions. Laboratory fee. MVC ONLY

WELDING (WE) 204 (3)
ADVANCED GAS METAL ARC WELDING—PLATE AND PIPE (2 LEC., 4 LAB.)

Prerequisite: Welding 201 or equivalent. This is an advanced theory and skill course in the use of gas metal arc welding of plate and pipe. Emphasis will be on passing the qualification test in plate and pipe in any metal, size and thickness range in all positions. Laboratory fee. MVC ONLY

WELDING (WE) 703, 713 (3)
(See Cooperative Work Experience)

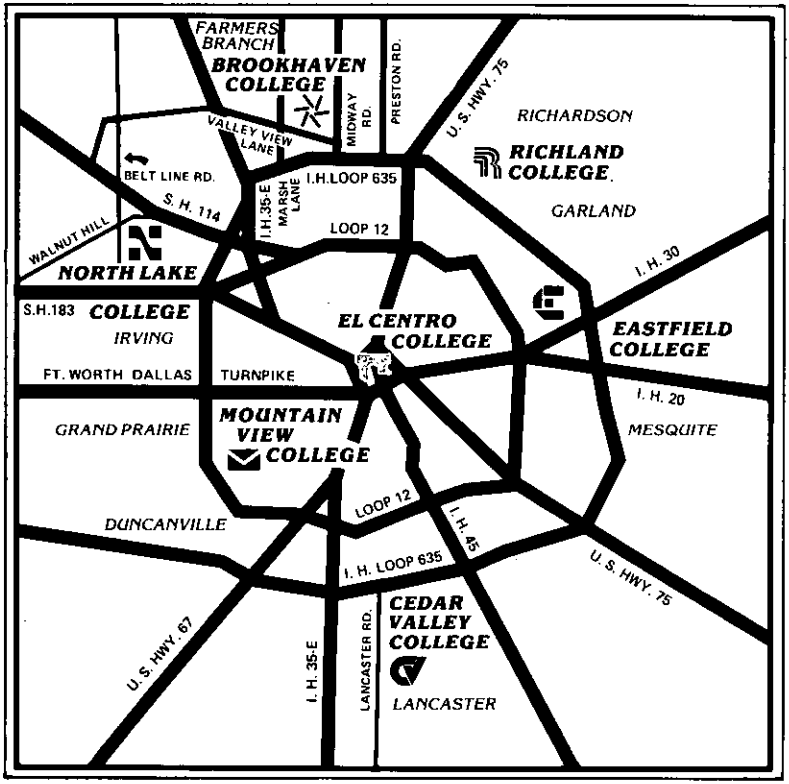
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Dallas County Community College District



The Dallas County Community College District is an Affirmative Action Equal Opportunity Institution.



Dallas County
Community College District
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