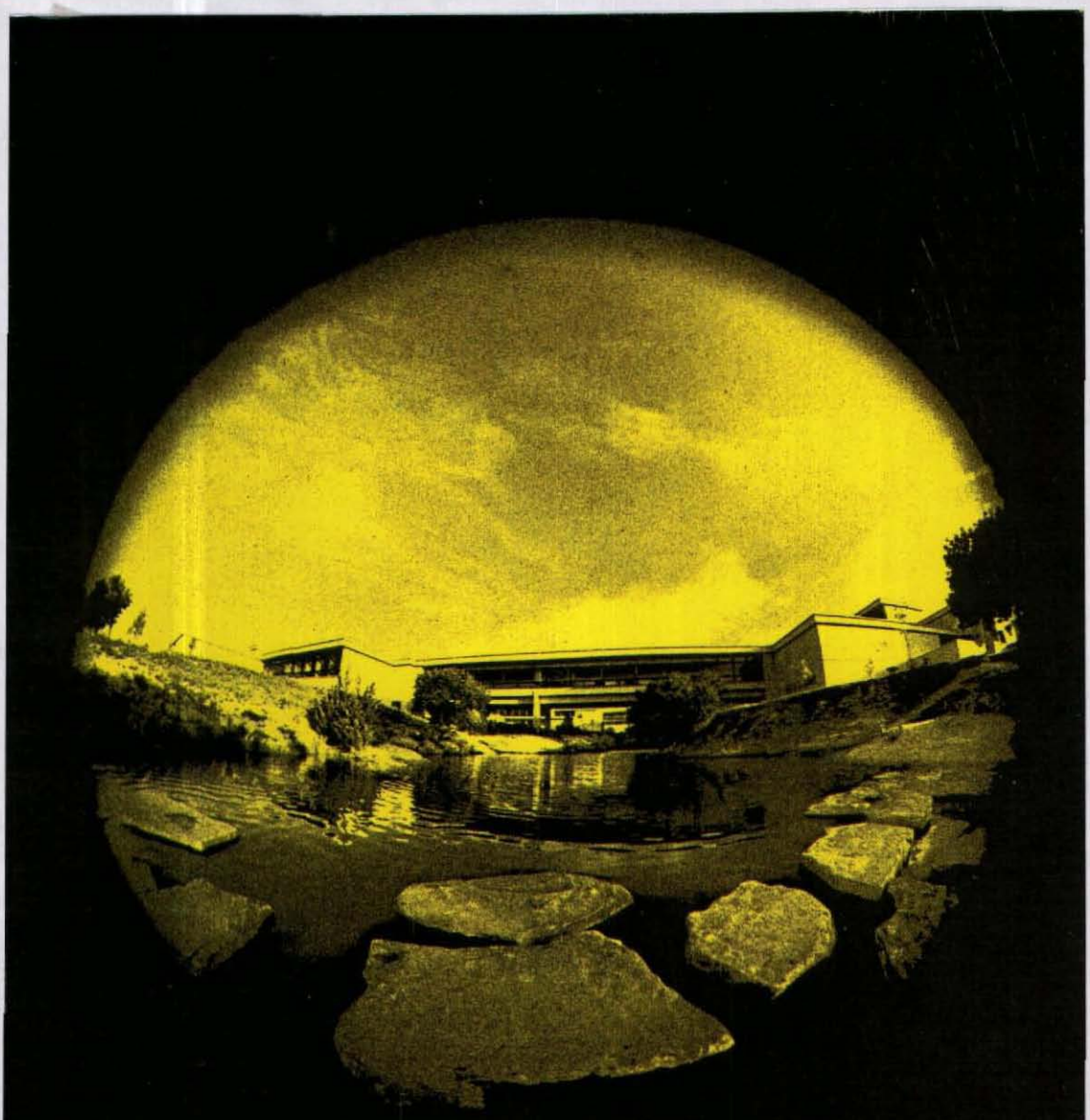

MOUNTAIN VIEW COLLEGE

OF THE DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

1974-1975

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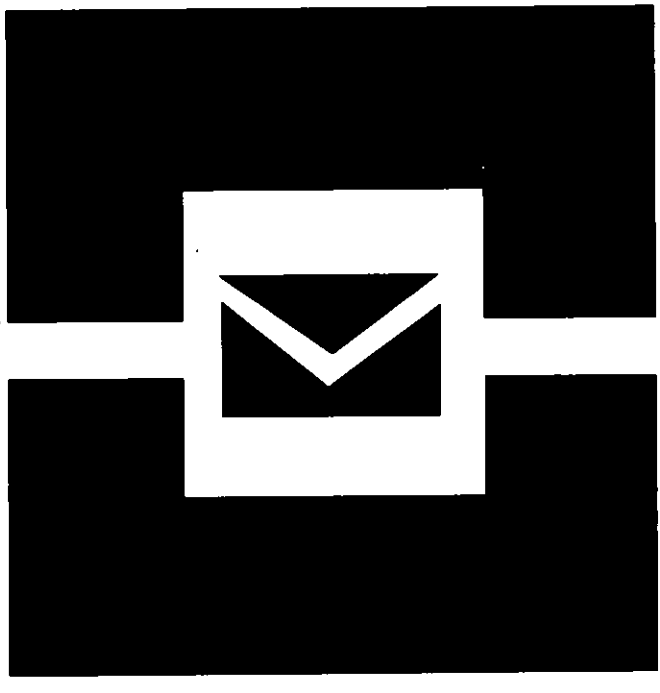
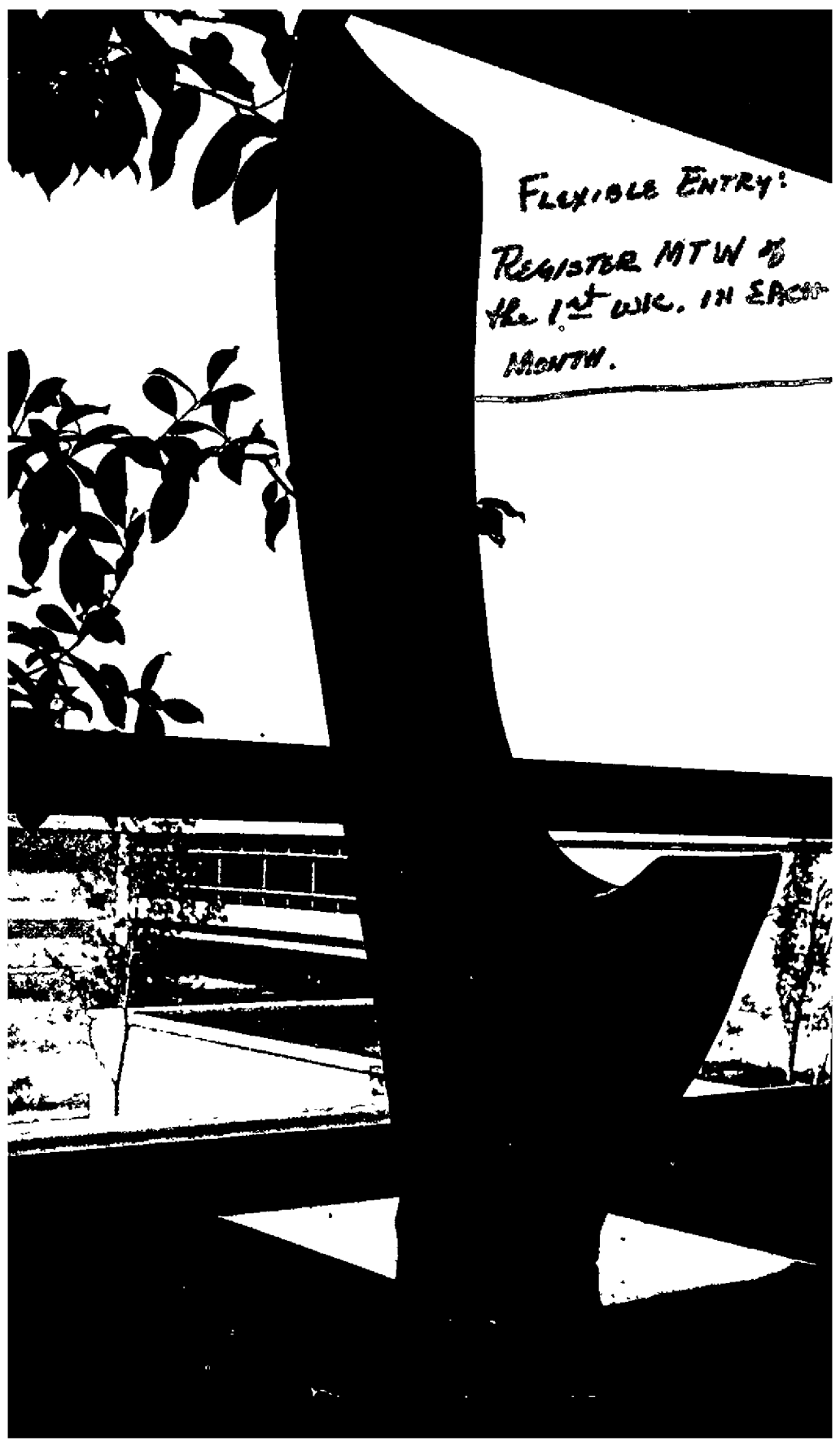


MOUNTAIN VIEW COLLEGE

OF THE

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

This catalog contains policies, regulations, and procedures which were in existence as the publication went to press. The College reserves the right to modify or amend any statement or policy to reflect current Board policies, administrative regulations or procedures and applicable State or Federal laws and regulations.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REGISTER MTW OF
the 1st WK. IN EACH
MONTH.

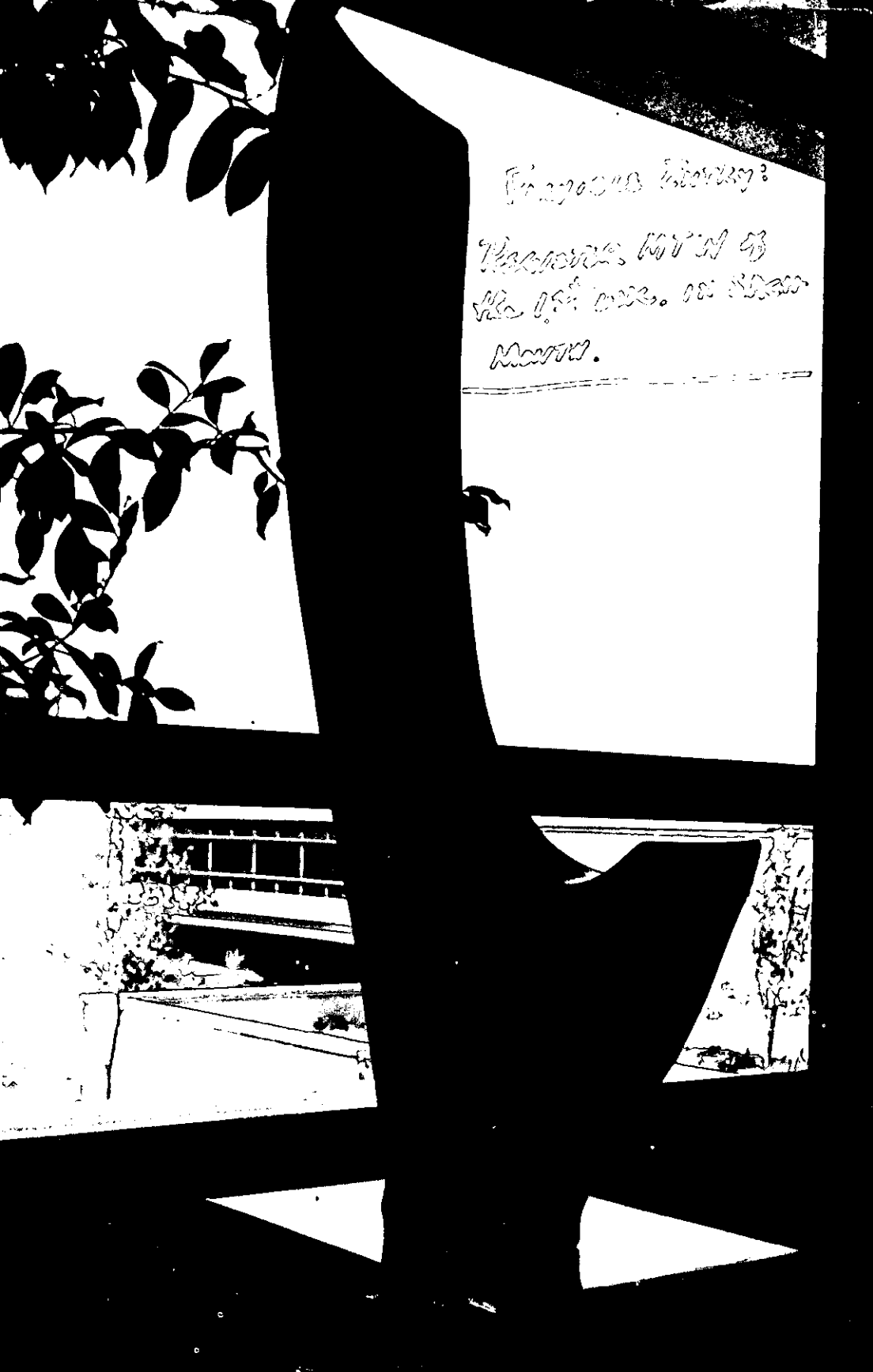

Прощай Америка!
Надеюсь, мы с тобой
не будем видеть сны
Никто.

TABLE OF CONTENTS

Photographs by Students: Helen Davidson, Robert Hart, Ted McLain, Stephen C. Barrett and Rickey D. Walker

Trinity Valley
College


GENERAL INFORMA

SUMMER SESSIONS, 1974

First Summer Session

June 3-4	Registration
June 5	Classes begin
June 6	Last day to apply for tuition refund
July 2	Last day to withdraw with a grade of "W" — 8:30 p.m.
July 4	Holiday
July 10	Final examinations
July 10	Semester closes, 5:00 p.m.

Second Summer Session

July 12	Registration
July 15	Classes begin
July 16	Last day to apply for tuition refund
August 9	Last day to withdraw with a grade of "W" — 5:00 p.m.
August 16	Final examinations
August 16	Semester closes, 5:00 p.m.

1974-75 Academic Calendar

Fall Semester

August 26	Faculty Reports
August 27-29	Registration
August 30	Professional Development
September 2	Labor Day Holiday
September 3	Classes begin 8:00 a.m.
September 9	Last day for tuition refund
October 28	Veterans Day Holiday
November 27	Thanksgiving Holiday begins 10:00 p.m.
December 2	Classes resume 8:00 a.m.
December 6	Last day to withdraw with a grade of "W" — 5:00 p.m.
December 13	Last day of classes
December 16-20	Final examinations
December 20	Semester closes 5:00 p.m.

Spring Semester

January 6	Faculty Reports
January 7-9	Registration
January 10 & 13	Professional Development
January 14	Classes begin 8:00 a.m.
January 20	Last day for tuition refund
February 21	Professional Development (to coincide with TJCTA Convention)

March 21	Spring break begins 5:00 p.m.
March 31	Classes resume 8:00 a.m.
May 2	Last day to withdraw with a grade of "W" — 5:00 p.m.
May 13	Last day of classes
May 14-20	Final examinations
May 20	Semester closes 5:00 p.m.
May 26	Memorial Day Holiday

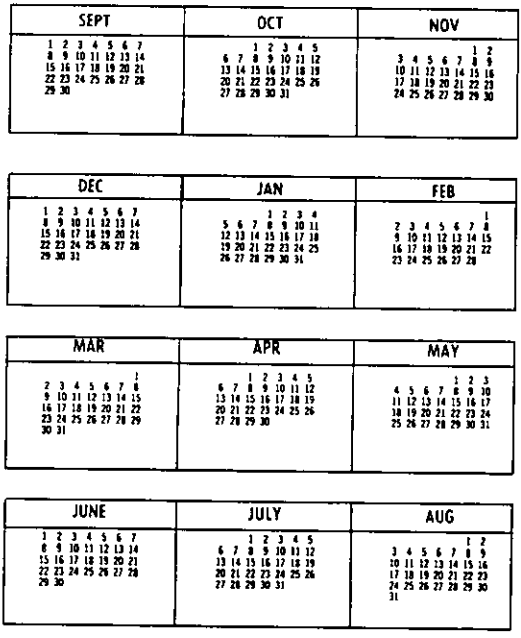
SUMMER SESSION, 1975

First Summer Session

June 2-3	Registration
June 4	Classes begin
June 5	Last day to apply for tuition refund
July 1	Last day to withdraw with a grade of "W" — 8:30 p.m.
July 4	Holiday
July 9	Final examinations
July 9	Semester Closes 5:00 p.m.

The Academic Calendar may be subject to change or modification.

Academic Calendar, 1974-1975



DCCCD History and Philosophy

The Dallas County Community College District's four innovative educational communities are dedicated to a common goal: serving in the best possible way the complex, varied and ever-changing educational requirements of a growing metropolitan community.

Each of the district's four colleges — Eastfield, El Centro, Mountain View and Richland — is therefore committed to providing every person in Dallas County a quality educational experience, whether the person is a youth setting forth toward a degree in medicine, or an adult wanting to enrich his leisure hours with an interesting hobby.

There is a place for a student who wishes to spend a year or two preparing himself to enter a trade or profession, and a place for an employed person who wants to further his training in his occupational field.

There is a place for the very bright high school student who is ready to undertake college-level training in advance of his graduation from secondary school, and a place for the high school dropout who has changed his mind about the necessity of education in today's complex, demanding society.

There is, simply stated, a place for *everyone.*

Of primary importance to the district's goal is making certain that a student's educational program is tailored to his needs, abilities and ambitions. The philosophy of the district is to create an educational program for an individual, rather than to try to squeeze or stretch an individual to fit an "educational mold."

Every student is offered competent, intensive counseling to help discover his goals and special abilities. Continued guidance is available to update a student's educational program if his goals change during his college experience. This emphasis on counseling, rare for some institutions, is routine procedure at all district colleges.

The district officially became the Dallas County Community College District in 1972, when its philosophy, function and breadth outgrew the traditional "junior" college label. The new name more closely states the district's mission — to meet the educational needs of the entire metropolitan community.

How do the district's colleges serve the educational requirements of such a complex family? The answer is found in educational offerings in four broad categories:

— For the student seeking the first two years of work toward the goal of a bachelor's or higher degree, the colleges offer a wide range of courses which are transferable to senior colleges and universities.

— For the student wishing to enter an occupation at a level above the bottom rung of the ladder, the colleges offer one-year and two-year programs of credit courses covering specific technical-occupational fields.

— For the employed person wishing to improve his knowledge of his field, or train for a move into a new occupational field . . . the colleges offer a broad range of credit and non-credit adult education courses.

— For the person who simply wants to make life a little more interesting there are community service programs offering a myriad of courses on cultural, civic and avocational topics.

Dallas County voters created the district in May 1965 and approved a $41.5 million bond issue.

The following year the district's first college, El Centro, opened its doors for the Fall Semester in the heart of downtown Dallas. In August 1970, Eastfield College and Mountain View College enrolled their first students and the multi-campus district envisioned by the district planners became a reality. Richland College became the district's fourth college in the fall of 1972.

In September of 1972, the voters of Dallas County approved the sale of an additional $85 million in bonds, thereby paving the way for the expansion of existing campuses as needed and the planning and construction of three more colleges. The first priority in the expansion program was the remodeling and enlarging of El Centro College. The construction got underway in late 1973, and is scheduled for completion by the fall of 1976.

The addition of the new campuses — Cedar Valley College (1976) North Lake College (1977) and Brookhaven College (1978) — will round out the seven-campus plan of the Dallas County Community College District.

Philosophy of Mountain View College

Mountain View College, of the Dallas County Community College District, is an open door, comprehensive college dedicated to the task of developing individuals for productive citizenship in a democratic society.

Mountain View College is further dedicated to enhancing the worth and dignity of every individual who interacts with the college. Dedication to individualizing instruction, recognizing individual differences and capabilities, and providing counseling and guidance service to every student shall be the primary objectives of the faculty and administrators. This college has established and intends to maintain an instructional faculty who are managers of class activities rather than disseminators of facts. The college adheres to the concept that teaching is a process of involvement and direction.

Mountain View College, then, commits itself to an ever-changing society and dedicates its fullest efforts to providing a stimulating, practical, varying curriculum and environment for every person within its reach.

League for Innovation

Mountain View College of the Dallas County Community College District is a member of the League for Innovation in the Community College. Sixteen outstanding community college districts throughout the nation compose the League membership. Innovative experimentation and the continuing de-

velopment of the community college movement in America are the purposes and goals of the League. Membership commits the Dallas County Community College District to research, evaluation and cooperation with other community college districts in providing the best possible educational program and fullest utilization of its resources to serve the needs of its community.

Accreditation

Mountain View College was granted full accreditation by the Southern Association of Colleges and Schools in December, 1972. Mountain View College and the other colleges of the Dallas County Community College District are members of the American Association of Community Junior Colleges and are recognized and sanctioned by the Coordinating Board of The Texas College and University system. The academic transfer curriculum is coordinated with senior colleges and universities to facilitate the transfer of credits to these institutions.

EVENING COLLEGE & COMMUNITY SERVICE PROGRAMS

Evening and Weekend College

In a dynamic, growing community such as that in which Mountain View College is located, people are involved. Their involvement often creates a need for gaining and developing knowledge and skills. Because of their involvement it is often impossible for them to attend college during daytime hours. The evening and weekend program was created to meet the needs of students who work or have other obligations during the day. The evening and weekend program offers these students the same broad spectrum of educational programs that is available to full-time day students.

It may be that the student desires to renew old skills or to acquire new ones. In the evening and weekend program there are courses to aid in building occupational, avocational, aesthetic, economic, civic, social and domestic skills. There are courses from all disciplines, both credit and non-credit. College transfer and technical-occupational programs of two years or less are available. The direction a student takes will be determined by his personal goals. As a comprehensive community college Mountain View offers the student the option of electing the program best suited for him and of changing the direction of his studies if his goals change. In this manner students, with the help of qualified counselors, can draw a personalized blueprint for themselves in higher education. The course load which is attempted should be realistically determined by the amount of time available for doing quality work.

The evening and weekend program offers high quality instruction, excellence of facilities, and a variety of student services as provided in the areas of counseling, health, bookstore, food, and recreation. Instructors in the evening and weekend program are selected from Mountain View's full-time staff and from among outstanding Dallas area educators and other professional specialists who are interested in teaching.

To enroll in the evening and weekend program at Mountain View College, call or write the Director of Admissions for an application for admission.

Community Service Programs

The community service program of Mountain View College offers programs directed toward finding educational solutions to localized problems which are not met by the formal degree and certificate programs of the college. These courses are designed to help individuals in exploring new fields of study, increase their proficiency in a particular profession, develop their potential or enrich their life through planned cultural and recreational studies, regardless of the student's age or previous educational experience.

Instructors for community service programs are leading professional men and women, Mountain View College faculty members and other educators who bring to our community exciting learning opportunities.

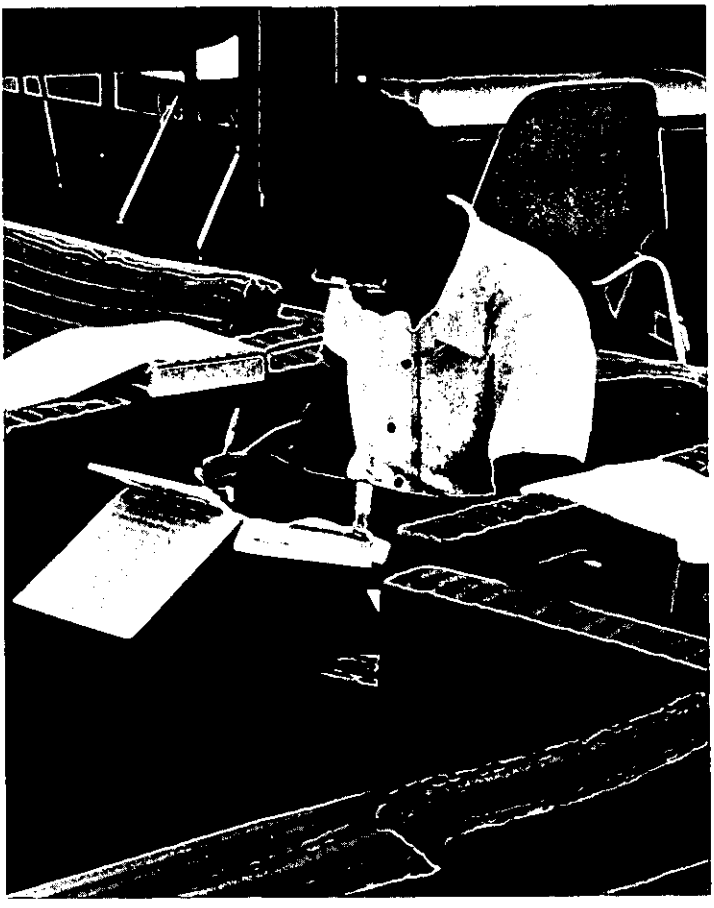
Community service programs are non-credit courses — there are no entrance requirements. Classes are offered both on and off campus as

circumstances warrant. Special assistance will be given to companies who wish to conduct courses, workshops or seminars in conjunction with their own training programs.

Courses may be offered in areas such as:

Business and Secretarial Programs
Languages and Guided Studies Programs
Management Development Programs
Vocational-Occupational Programs
Physical Performance Programs
Special Interest Programs
Engineering & Industrial Programs
Continuing Education for Women

For additional information about Community Service programs, please contact the Mountain View Community Service office — Phone 746-4112.




ADMISSIONS & REGISTRATION

General Admission Policy

Applications will be accepted any time prior to registration. Since registration priorities are assigned according to the date an application is received, applicants should plan to submit applications at least three weeks before registration. Applications received after this date will receive a lower priority. All applicants are limited in their selection of classes to those available when they register.

Admission Requirements

1. Beginning Freshmen:
   Students enrolling in college for the first time may apply if they are:
   a. A graduate from an accredited high school.
   b. A graduate from an unaccredited high school who is eighteen years of age.
   *c. A non-high school graduate who is eighteen years of age and whose high school class has graduated.
   d. A high school student recommended by the high school principal. (See concurrent enrollment.)
2. Transfer Students:
   a. College transfer applicants will be considered for admission on the basis of their previous college record. Academic standing for transfer applicants will be determined by the Office of Admissions based on the standards established by Mountain View College.
   b. Students on scholastic or disciplinary suspension from another institution must petition the Committee on Admission and Retention for special approval.
3. Former Students:
   Former Dallas County Community College District students will be required to submit an application for readmission to any one of the District colleges. A student will not be readmitted to any college within the District if he or she has unsettled financial debts at any of the District colleges.
4. Non-Credit Students:
   Students seeking enrollment for non-credit courses are directed to contact the Division of Community Service Programs.
   Exceptions to these requirements will be referred to the Committee on Admission and Retention.

Admission Procedures

The following material must be submitted to the Office of Admissions before a student's entrance file is considered complete:

- an application for admission
- an official transcript from the last school (high school or college) attended. Transcripts are required by Mountain View College's accrediting agency and are important for program advising in the Counseling Center. Students who are seeking a certificate or associate degree are required to submit transcripts of all previous *college* work prior to the end of the first semester.

*A student may present satisfactory results of a high school equivalency exam (GED).

- written proof from a medical office of
  - — a negative tuberculin skin test or chest X-ray
  - — a polio immunization if the applicant is under 19 years of age
  - — a diphtheria/tetanus injection within the last ten years

This medical proof is required by state law (Senate Bill 27).

Advisement Procedures

When students receive their letter of acceptance, they will be invited to an advisement session. This session may be conducted individually or as a group with a counselor; however, new students are expected to attend a New Student Orientation for advisement. The session is designed to help students to make schedule choices for themselves based upon assessment in courses or programs at Mountain View College. The session requires one-half day and is designed to meet the needs of students who are enrolling in college for the first time and who expect to attend full-time.

A variety of diagnostic instruments may be used for assessment and placement in courses or programs; however, none are required for admission. These instruments are used as counseling tools for more reliable placement. For those students who wish to send their ACT scores for placement use, the ACT code for Mountain View College is 4089.

Developmental Studies are provided for those students who may require developmental assistance in reading, writing, or math. Test data, transcripts of previous work, and counseling assessment may be used to determine placement in this program.

Name, Address, and Social Security Number

Students are reminded to inform the Office of the Registrar of any changes which occur in their name or address. All applicants are required to furnish a social security number which is used as the student's identification number and to insure accuracy of student records.

Concurrent Enrollment

A limited number of high school seniors may be concurrently enrolled upon recommendation of the high school principal. The colleges in the Dallas County Community College District have no geographical boundary restrictions for enrollment at any of the campuses. Admission requirements for all of the colleges are established by the Dallas County Community Collee District Board of Trustees and are the same for all District colleges. Students may enroll in more than one college at the same time.

Transfer of Credits

Transfer credit will be given for all passing work completed at accredited colleges and universities. The Admissions Office will be responsible for the evaluation of all transfer credit.

Students who are admitted with a grade point deficiency will not be graduated from Mountain View College until this deficiency has been cleared.

Credits earned in military service-connected schools or through the U.S. Armed Forces Institute will be reviewed by the Director of Admissions and credit granted if applicable.

Transcript of Credit from Mountain View College

The Registrar's Office will send the student's transcript upon request to the individual student or to any college or agency named. However, a student's official transcript may be withheld until he has settled all financial obligations to the college.

International Students

Mountain View College is authorized under Federal Law to enroll non-immigrant alien students. However, under present conditions, foreign students are not admitted until all admission requirements are complete. A personal interview with the foreign student advisor and special permission from the President of the College are required before admission can be finalized. In addition to admission requirements for all other students, international students must demonstrate proficiency in English, provide evidence of financial stability, and meet with the foreign student advisor for general counseling concerning his potential for profiting from the educational programs of Mountain View College. Admission procedures for international students are regulated by the President of the College and may require his permission for enrollment. Under present conditions, international students are not admitted until *all* admission requirements are complete.

Servicemen's Opportunity College

Mountain View College, along with the other colleges of the Dallas County Community College District and in cooperation with other community colleges in the United States, participates in the Servicemen's Opportunity College. This program enables the institution to plan with the serviceman an educational experience regardless of his mobility pattern. For futher information, contact the Office of Financial Aid and Placement.

Student Diversity

Mountain View College encourages the attendance of mature students of all ages from all ethnic backgrounds and fully complies with the provisions of Title VI of the Civil Rights Act of 1964 (P.L. 88-352).

FEES

Tuition and Fees

Tuition is charged on a sliding scale according to the number of credit hours in which a student is enrolled and his place of legal residence. Tuition for credit courses will be charged according to the following schedule:

Dallas County Community College District
Tuition and Student Services
Fall, Spring Sessions, 1974-75

Semester	In-District			Out-of-District			Out-of-State*			Out-of-Country		
Cr. Hrs.	Tuition	Fees	Total	Tuition	Fees	Total	Tuition	Fees	Total	Tuition	Fees	Total
1	25		25	25		25	40		40	200		200
2	25		25	40		40	80		80	200		200
3	25		25	60		60	120		120	200		200
4	25		25	80		80	160		160	200		200
5	30		30	100		100	200		200	200		200
6	36	4	40	120	4	124	240	4	244	240	4	244
7	42	4	46	140	4	144	280	4	284	280	4	284
8	48	4	52	160	4	164	320	4	324	320	4	324
9	54	4	58	180	4	184	360	4	364	360	4	364
10	60	4	64	200	4	204	400	4	404	400	4	404
11	64	4	68	204	4	208	440	4	444	440	4	444
12	68	7	75	208	7	215	480	7	487	480	7	487
13	72	7	79	212	7	219	520	7	527	520	7	527
14	76	7	83	216	7	223	560	7	567	560	7	567
15	80	7	87	220	7	227	600	7	607	600	7	607
16	84	7	91	224	7	231	640	7	647	640	7	647
17	88	7	95	228	7	235	680	7	687	680	7	687
18	92	7	99	232	7	239	720	7	727	720	7	727
19	96	7	103	236	7	243	760	7	767	760	7	767
20	100	7	107	240	7	247	800	7	807	800	7	807

*A non-resident student is hereby defined to be a student of 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.

Dallas County Community College District
Tuition Schedule
Summer Sessions, 1975

Semester Credit Hours	In-District	Out-of-District (Other Texas Counties)	Out-of-State*	Out-of-Country
1	25	30	45	100
2	25	60	90	100
3	30	90	135	135
4	40	120	180	180
5	50	150	225	225
6	60	180	270	270
7	64	184	310	310
8	68	188	350	350
9	72	192	390	390

Special Fees and Charges

Laboratory fee —	(a semester, per lab) $2.00 to $8.00
Music Fees —	*(private lessons a semester) $35.00 for 1 hour per week (maximum charge for one course) $20 for ½ hour per week
Physical Education —	$5.00 per course
Bowling Fee	$10.00
Pilot Technology — Flight Fees	Costs per flight and/or simulator hour vary with level of instruction. Students should contact the director of the Pilot Technology Program for exact cost figures

*Available only to music students enrolled for 12 units or more.

Audit Fee

The charge for auditing a course is at the same rate as taking a course for credit regardless of the number of hours enrolled, except that a student service fee is not charged.

Credit by Examination

Examination fee of $15.00 per examination.

Additional Fees

Additional fees may be assessed as new programs are developed with special laboratory costs. These fees will always be kept to a basic practical minimum for the program involved. A graduation fee is not assessed students receiving a degree; however, each student will pay for cap and gown rental.

Refund Policy

The refund policy for Mountain View College is based on the fact that student tuition and fees provide only a fraction of the cost of providing educational opportunities. When a student enrolls in a class, he reserves a place which cannot be made available to another student unless he officially drops the class during the first week of the semester. Also, a student's original enrollment represents a sizeable cost to the district whether or not he continues in that class. Therefore, a refund will be made only under the following conditions:

1. No 100% refund is granted unless college error is involved.
2. An 80% refund of tuition and fees may be obtained through the fifth day of classes of a long semester. The first two class days of a six week summer session or a Fastrak semester are considered to be equivalent to the five days of the long semester. (The Academic Calendar lists the last day to apply for a tuition refund in each term.)
3. Requests for a refund must be submitted before the end of a semester or summer session for which the refund is requested.
4. A refund of less than $4.00 for tuition and/or fees will not be made.
5. Refund Petition forms are available in the office of the Dean of Human Development Programs.

A student who feels that his refund request is due to an extenuating circumstance beyond the limits of the refund policy should be explicit when completing the Refund form. All requests for refund will be referred to the Refund Petitions Committee in the Office of the Dean of Human Development Programs for evaluation and recommendation. Refund checks normally require a minimum of one month to process.

STUDENT SERVICES

Counseling and Guidance

Students and prospective students who have provided all necessary admissions information to the college will find a staff of professional counselors available to help them resolve questions of career choice, college transfer requirements, study skills, self-understanding and other kinds of personal problems. Group and individual techniques are employed by the counselors to meet student needs. A partial review of additional materials and services available through the counseling center is listed for student information:

1. Psychological tests of personality, vocational interests and aptitudes.
2. Technical and occupational information.
3. Catalogs from a wide selection of college and universities.
4. Registration information.
5. Information about the general services offered in other divisions of the college.
6. Tutoring services.
7. Referral for students requiring therapy for psychological problems.
8. Educational planning of courses to meet specific degree requirements.

All students are assigned a counselor by the Counseling Center. Those who desire services of a counselor should contact their assigned counselor for an appointment. Students are encouraged to express any desire for change in their assigned counselor.

Human Development

The instructional activities in the Human Development courses provide chances for students to explore the relationship between meaningful education and some of the dilemmas or questions commonly brought to college. "Why learn" and "how to learn" is put in a perspective of "who is to learn." These courses are taught by counselors, student advisors, and by instructors in Developmental Studies.

This new series of courses in student development enhances the total curriculum and blends in with the total concept of the community college, and at the same time, offers academic credit which is transferable to most surrounding four-year institutions.

Financial Aid Programs

The Financial Aid Program at Mountain View College is designed to function as a multi-purpose financial assistance service for students. A major objective is to provide assistance to students who, without such aid, would be unable to attend college. Basic to this philosophy is the belief that the educational opportunities of able students should not be controlled by their financial resources.

Where to apply: Requests for information should be directed to the Director of Financial Aid, Mountain View College, 4849 W. Illinois, Dallas, Texas 75211.

When to apply: Students who anticipate the need for financial assistance for college should complete an application well in advance so a realistic determination of their need may be reached.

The student should submit the application as early as possible prior to the semester in which he plans to enroll.

Federal and State Programs
Veterans Benefits

The Veteran's Benefits Program for eligible students is coordinated by the Office of Financial Aid and Placement located in E-110B. Veterans who are interested should call 746-4188, 746-4267, or come by E-110B.

Services of the Veterans Affairs Office include counseling the veteran concerning benefits, employment, housing, financial problems, and other practical areas of concern. When tutoring or remedial studies are indicated, arrangements can be made through the office to obtain financial help for tutoring.

The Veterans Affairs Office is also charged with the responsibility of informing veterans in the community of their educational benefits and indicating how Mountain View College can help them use these benefits in fulfilling educational goals.

Bureau of Indian Affairs

For information on educational benefits, an Indian student should contact the nearest BIA office.

Social Security Administration

Benefits under this program are available to students who meet the criteria set up by the Social Security Administration. The Office of Admissions and Records acts as liaison between Mountain View College students and the Social Security Administration.

Vocational Rehabilitation

The Texas Education Agency, through the Vocational Rehabilitation Division, 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 Vocational Rehabilitation, 4333 North Central Expressway, Dallas, Texas 75205.

Hazlewood Act

Certain veterans who have no remaining V.A. educational benefits can attend Texas state supported institutions with their tuition and fees waived if they were residents of Texas at the time they entered the services and are now residents of Texas. Contact the Financial Aid office for details.

State-Sponsored Scholarships

These scholarships waive payment of tuition for two semesters for the highest ranking graduate of each accredited high school in Texas each year.

Loans

Mountain View College has several loan funds for students needing long-term as well as short-term assistance.

Hinson-Hazlewood College Student Loan Program. The necessary requirements for this loan are:

1. Legal residence in Texas.
2. Enrolled or accepted for enrollment for at least a half-time course of study.
3. Established financial need.

The amount of loan for which a student may qualify depends upon the income of his family. Married applicants are qualified by considering the income of both husband and wife.

Qualified students may receive up to $1,500 for the nine-month school session.

Repayment begins between 9 and 12 months after the student ceases to be enrolled for at least half the normal course load. Repayment may extend up to 10 years; however, a minimum payment of $30 a month is required. Interest rate is 6.25 per year (adjusted).

Short-Terms Loans. A student may borrow up to $100 at no interest if funds are available. This loan must be repaid within 90 days or before the end of the semester in which the money is borrowed.

Grants

Basic Educational Opportunity Grant (BEOG). Students who entered college for the first time after July 1, 1973 and are enrolling full-time may be eligible for this "entitlement grant." Applications are available in many federal offices, as well as in the Financial Aid Office, and are mailed directly by the student to a central processing place indicated in the instructions. The student receives a Family Contribution Analysis Report which he brings to the Financial Aid Office for interpretation and determination of grant amount according to an objective table provided to them by the federal government for that purpose.

Supplemental Educational Opportunity Grant. This grant is authorized under the Higher Educational Act of 1965 and is designed to help students with exceptional financial need. To be eligible a student must prove such financial need and make satisfactory progress toward the completion of his educational goal. The amount of an SEOG award must be matched by another source, usually an amount earned by the student from a work-study job on campus. SEOG amounts vary from $200.00 to $800.00 per academic year depending on need, total number of applicants, and funds available. Students must apply each academic year to be reinstated.

Scholarships

Mountain View College offers a limited number of scholarships to students who exhibit scholastic ability, and/or need. Individuals, private industries and groups make these scholarships available through the Office of Financial Aid and Placement.

Revocation of Aid

The Financial Aid and Placement Office reserves the right to review and cancel awards at any time for the following reasons:

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 his family.
4. Any student in violation of any regulation governing the program from which he is receiving aid.

It is understood that the student is aware of the conditions under which aid is offered and agrees to meet all the necessary requirements.

Placement

The Financial Aid and Placement Office will assist any student desiring job placement, either on or off-campus.

Career placement assistance is available for students nearing completion of their course of study. All students should register with the Financial Aid and Placement Office at least one full semester prior to their graduation.

Campus Employment

Part-time employment. Typically, part-time employment is designed as a financial aid to assist students while they are in college through:

1. On-campus placement.
2. Work-study programs.

Efforts are made by the Office of Financial Aid and Placement for students to gain employment in clerical work, library work, laboratories, custodial work, selling, etc.

Student Development

The Student Development and Programs office at Mountain View College develops programs that are visualized as an integral part of the learning experience available at the college. Through direct contact with a professionally trained staff, the student is encouraged to find new ways of expressing himself, to develop skills in relating to other people, to formulate a new understanding of and respect for himself and his environment. The division is under the jurisdiction of a student, faculty, and administration-composed policy-making board, and includes the general areas of the Student Programming Council, student organizations, intramurals, athletics, and the college newspaper, each designed to provide unique opportunities in which classroom experiences can be extended and expanded. Student-planned activities such as games, tournaments, speakers, dances, films, art shows, entertainers, intramurals, special-interest groups, clubs, and organizations provide opportunities for a more complete experience for each individual student.

Student Center

The Mountain View College Student Center occupies a major portion of the West complex. It contains conference rooms and recreational facilities including a Bowling Alley, pool tables, foosball, table tennis, and air hockey. The student may choose to use these facilities and services, which are provided for his comfort and recreation, as his leisure time and interests dictate. Those students desiring to become more fully involved in the programming aspects of the Student Development office are encouraged to do so.

Student Organizations

Information about participating in any organization may be obtained through the Student Development and Programs office located in W-045. Most recognized organizations at Mountain View College fall within one of the following classifications:

1. Co-Curricular Organizations — These co-curricular organizations are integral to the educational goals and purposes of the College. Certain procedures affecting student life are designated as the responsibility of such organizations.
2. Social Organizations — Such organizations exist for the purpose of providing fellowship, developing social relationships and promoting a sense of community among students who wish to be involved in group social activities.
3. Service Organizations — Service organizations have as their primary function the pursuit of activities which will contribute to the development of career fields.
4. Professional Organizations — Pre-professional and academic organizations are joined by students wishing to pursue interests which will contribute positively to the school and to the community.
5. Scholastic Honorary Organizations — Scholastic honorary organizations offer membership to students on the basis of academic excellence and performance.
6. Special Interest Organizations — Such organizations are organized by students who are intent upon developing or broadening an interest in some particular aspect of their lives as human beings.

Intercollegiate Athletics

Mountain View College offers qualified students an opportunity for participation in intercollegiate athletics in the following sports:

1. Basketball.
2. Baseball.
3. Golf.
4. Tennis.
5. Handball.

Other sports shall be included at a later date as interest demands.

Participation is available on athletic teams for all full-time students on a voluntary non-scholarship basis.

College Commission System

The College Commission System includes all segments of Mountain View College — students, faculty, classified staff, and administrators. All have a vested interest in the school and are therefore entitled and urged to participate in the operation of the college and the activities sponsored by Student Development and Programs.

The College Commission System allows the total college population to share in the decision-making process and is composed of the following elements: President's Forum, Commissions, and Ad Hoc committees.

Urban Progress with Education — A Mobile Counseling Project

The Mobile Counseling Service is sponsored by the Dallas County Community College District and the Talent Search and Special Services Branch of the U.S. Office of Education. The project is designed to offer extensive counseling services to persons from economically disadvantaged groups who may profit from further secondary or post-secondary education through the use of a Mobile Counseling Center. The project staff attempts to achieve this objective through activities such as one-to-one counseling, disseminating educational information, acquiring financial aid for needy students, bringing the counseling service to the target communities and assisting in the placement of youth either in schools or on-the-job training programs. For further information, contact Mobile Counseling Center, Mountain View College, phone 746-4272.

Health Center

The Health Center, located in E-001 (next to Physical Education Department), is maintained on campus to provide health counseling and education as well as emergency and first aid care. The Health Center is open from 8:30 a.m. until 10:00 p.m. Monday through Thursday and from 8:30 a.m. until 5:00 p.m. on Friday.

Confidentiality of all findings is maintained, and no information is ever released without written permission from the student. A major function of the Health Center is the referral of students to the appropriate outside source for additional treatment, if this is needed. Each student is responsible for his own transportation to referred sources.

Health education material may be secured from the Health Center. A small library is maintained containing health-related materials not available in the library.

All students are encouraged to complete the health history form as fully as possible so that the Health Center can best serve their needs.

The Health Center is staffed with registered nurses and a physician on call at all times.

Housing

Mountain View College does not operate dormitories of any kind nor maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing.

Standards of Conduct

The college student is considered a responsible adult. The student's enrollment indicates acceptance of those standards of conduct which appear in the Student Handbook. A copy of the Student Handbook may be obtained from the Office of Student Development & Programs.

Grade Reports and Settlement of Debts

Grade reports are issued to each student at the end of each semester. Transcripts may be withheld if the student does not have all required student information on file in the Registrar's Office or if any financial obligations to the college have not been paid.

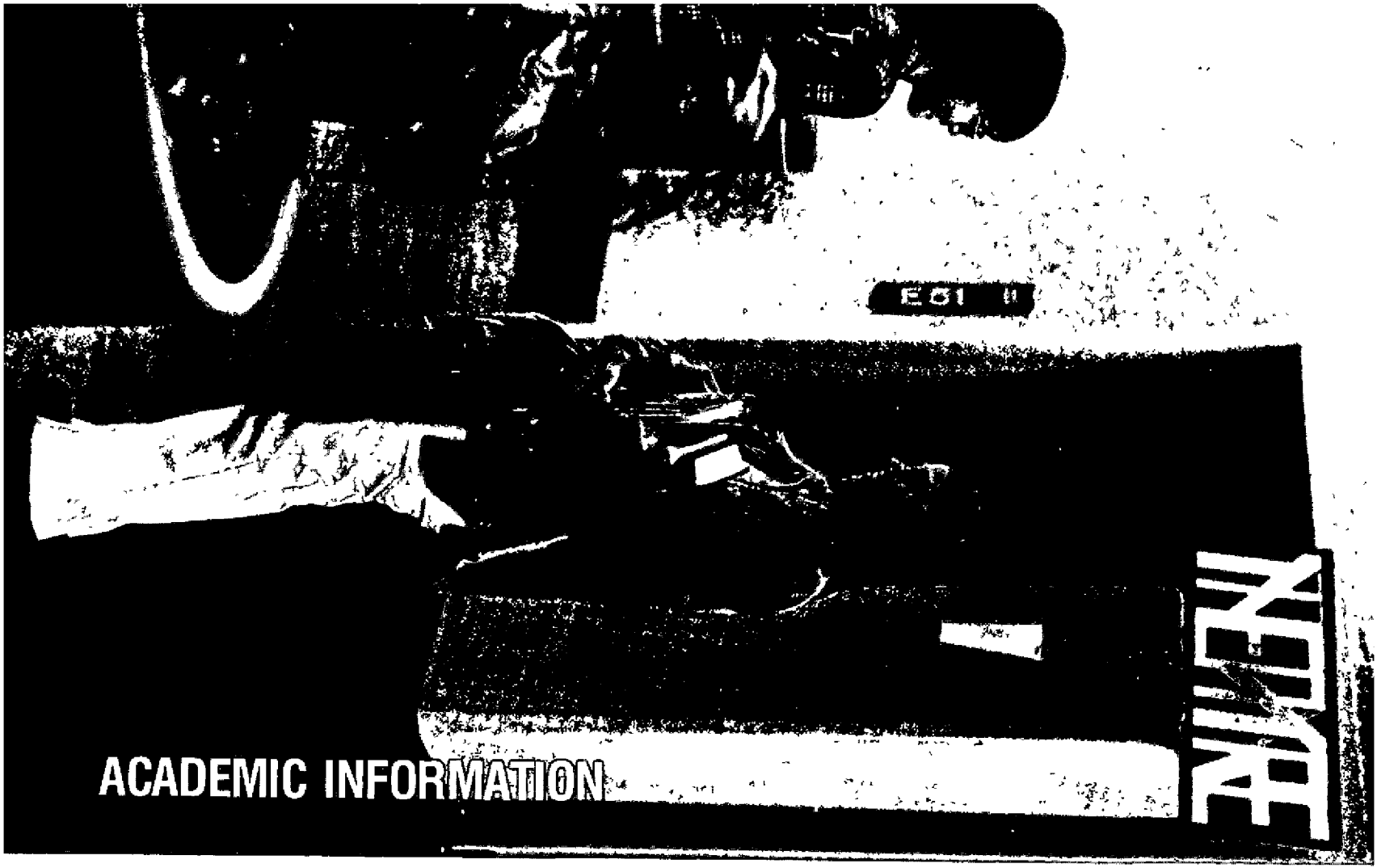
Security Division

The department of Campus Security is required by state law to "protect and police buildings and grounds of state institutions of higher learning." Since all of the general and criminal laws of the state are in full force and effect within the campus community, specially trained and educated personnel are commissioned to protect not only the physical property of the campus community but also to protect the person and the property of campus citizens. The security officers are responsible for enforcing rules, regulations, and Board policies of the college, including a Code of Conduct for students. The department seeks to operate a student-oriented program which encourages face-to-face contact between students and security officers to facilitate the open exchange of ideas and to develop a tolerance for individual points of view.

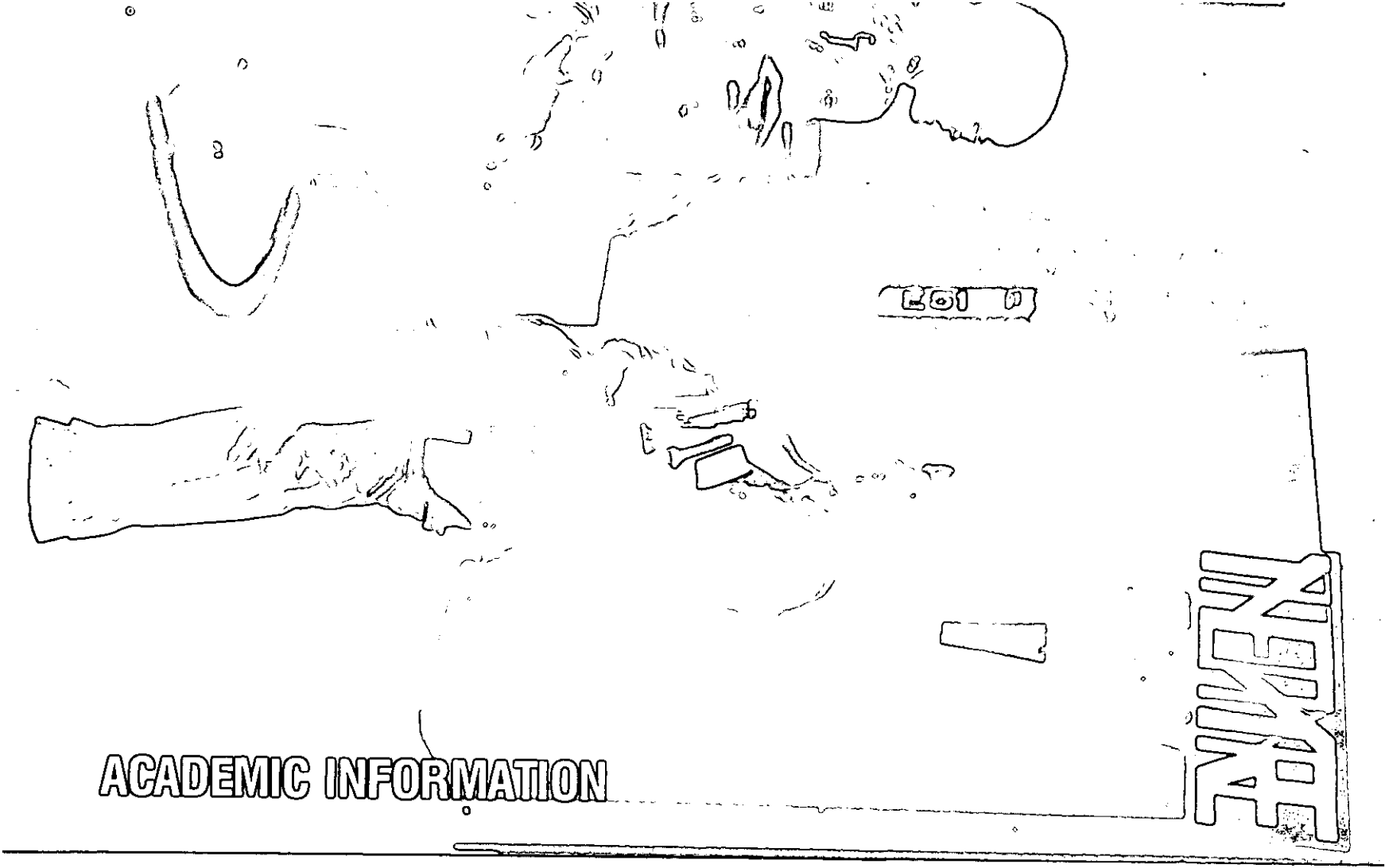
The Campus Security Office is located on the first floor of the West complex (W-135). A security officer may be reached any time the campus is open for educational activities by calling the campus operator: "O" or the Security office 746-4258.

Community Service

Short-term, non-credit Community Service courses are the district's answer to the community's challenge to provide educational opportunity for everyone. These courses reflect the interests and needs of the community and cover a wide variety of subjects, ranging from occupational training to personal entertainment and cultural enrichment. Instructors are leading professional men and women, college faculty members and experts in the course subject. There are no entrance requirements and class schedules are set for the convenience of the students.



ACADEMIC INFORMATION


ACADEMIC INFORMATION

Academic Standards: Grades and Grade Point Averages

Final grades are reported for each student for every course undertaken 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

Grade Points earned for each course are determined by multiplying the number of points for each grade by the number of credit units the course carries. A student's grade point average is computed by adding the total grade point values for all courses for which grade point values may be computed and dividing by the appropriate number of credit units attempted during the same period.

Incomplete grades are given when an unforeseen emergency prevents a student from completing the work in a course. Division Chairmen must approve all "I" grades. Incomplete grades must be removed within 90 calendar days after the first day of classess in the subsequent regular semester. After 90 days they will be changed to a "W".

Degree Requirements Associate in Arts and Science Degree Requirements

A total of 60 units must be presented with an average of at least "C" (2.0). Courses numbered 99 and below may not be counted toward the 60 units minimum.

These 60 units may be earned at any Dallas County Community College District college and must include:

English 101-102, plus an additional 6 units of English	12 units
A minimum of 8 semester units of a laboratory science	8 units
(Music Majors are exempt from this requirement. Check listings under subject field)	
History 101-102 and Government 201-202 (No substitutions allowed)	12 units
Humanities: To be selected from Theatre 101, Art 104, Music 104 or Humanities 101	3 units

In addition to the course requirements, each degree candidate must earn the last 15 units as a resident student in the district college or accrue 45 units in residence. The degree will be granted by the college in which the student took the last 15 units or where the majority of units were accrued. No more than ¼ of the work required for any degree or certificate may be taken by correspondence. Permission must be granted by the Director of Admissions for correspondence work.

All students who expect to transfer to a four-year institution are urged to complete their four semester requirements in physical education during their freshman and sophomore years. A maximum of two physical education activity hours may be counted as credit toward requirements for graduation.

The student is urged to consult the catalog of the institution to which he may transfer for its special requirements. These catalogs should be used by the student and his advisor as a basis for the program plan.

Degree Requirements
Associate in Applied Arts and Science Degrees

A minimum of 60 units exclusive of those courses numbered 99 and below must be presented with an average grade of at least "C" (2.0). All of the prescribed requirements for the specific technical or occupational program for which the student is enrolled must be completed and for some programs, the semester unit total is over 60.

A maximum of two physical education activity hours may be counted as credit toward requirements for graduation.

Degree Requirements
Associate Degree and Certificate Career Programs

Career programs are one-year and two-year courses of study designed to enable a student to enter his chosen occupational field as a skilled employee and his community as a culturally aware citizen.

These programs are offered only after studies prove employment opportunities will exist at the time the student completes his program, matching the industrial community's requirements to the ambitions and goals of the student.

This realistic approach to vocational education is made possible by the excellent cooperation of local industry, business and institutions who more and more are looking to the district's colleges for skilled personnel.

In addition to training in a specific occupational field, the student's program includes courses in the humanities, English, history and other academic subjects to enable the student to better understand and participate in his community.

Technical vocational courses are college credit courses and some are transferable in the event a student wishes to continue his studies at a four year institution.

The following Associate Degree and Certificate Programs are offered at Dallas County Community Colleges:

El Centro — EC
Eastfield — E
Mountain View — MV
Richland — R

Accounting Technician	EC	MV	R	E
Air Conditioning & Refrigeration (Certificate)				E
Air Conditioning and Refrigeration Technology				E
Apparel Design	EC			
Architectural Technology	EC			
Auto Body				E
Automotive Technology				E
Aviation Administration		MV		
Avionics Technology		MV		
Child Development Associate				E
Child Development Assistant				E
Construction Management and Technology			R	
Data Processing Operator	EC			
Data Processing Programmer	EC			E
Dental Assisting Technology	EC			

Dental Assistant Certificate	EC			
Diesel Mechanic				E
Digital Electronics				E
Drafting and Design Technology	EC	MV		E
Drafting and Design Technology (Co-op)				E
Educational Secretaries	EC		R	E
Electro-Mechanical Technology			R	
Electronics Technology		MV		
Environmental Technology	EC			
Fire Protection Technology	EC			
Fluid Power Technology			R	
Food Service — Operations	EC			
Food Service — Dietetic Technician	EC			
Graphic Arts				E
Horology		MV		
Horticulture — Landscape			R	
Human Services	EC		R	E
Nurseryman			R	
Interior Design	EC			
Library Technical Assistant	EC			
Machine Shop		MV		
Medical Assisting Technology	EC			
Medical Laboratory Technician	EC			
Medical Transcriptionist	EC			
Mid-Management	EC	MV	R	E
Nursing — Associate Degree	EC			
Nursing — Licensed Vocational	EC			
Office Skills and Systems	EC	MV		
Operating Room Technology	EC			
Pattern Design (Drafting and Draping)	EC			
Pilot Technology		MV		
Police Science	EC			
Quality Control Technology			R	
Radiologic Technology	EC			
Recreational Leadership				E
Respiratory Therapy — 1 year certificate	EC			
Respiratory Therapy Technology	EC			
Secretarial Career (1 year)	EC	MV	R	E
Secretarial Career (2 year)	EC	MV	R	E
Services for the Deaf (1 year)				E
Services for the Deaf (2 year)				E
Teacher Aide	EC		R	E
Television and Radio Electronics	EC			
Transportation Technology				E
Welding, Technology		MV		

Procedure for Filing Degree and Certificate Plans

1. The student should request a degree plan from the Admissions Office upon completion of 30 semester hours. Transcripts of all previous college work must be on file at the time of the request for a degree plan.
2. A student following a 1-year certificate program should request an official plan during his first semester.
3. Application for the granting of the degree or certificate should be filed in the Registrar's Office prior to the college catalog calendar deadline.
4. A candidate for graduation in May is requested to attend the commencement program unless granted prior permission by the Dean of Human Development Programs to graduate in absentia.
5. January and August graduates may attend the next commencement if they desire, but are not required to do so. Should the graduating student wish to attend, the Registrar's Office should be notified of his intention.
6. For information concerning graduation fee, see page 20 under "Additional fees." Instruction concerning graduation will be mailed to all candidates 30 days prior to commencement.

Candidates for any degree or certificate must meet the requirements as set forth in the catalog for the year of first enrollment unless he elects to graduate under the requirements of a later catalog. The candidate must indicate the catalog of his choice when he files his degree plan.

To qualify for a second degree or certificate a student must fulfill the residence requirement for the second degree and must complete all required courses in the plan for the second degree or certificate.

Class Attendance

Students are expected to attend regularly all classes in which they are enrolled. Class attendance is the responsibility of the student. It is also the responsibility of the student to consult with his instructors when an absence must be excused. Instructors are given the prerogative of determining the excusability of student absences.

Instructors are required to report students to the Dean's office for excessive absences. Generally, first excessive absence reports are made when absences have reached 3 consecutive hours or an accumulation of 6 hours. At this point, students are warned that failure to attend class may result in suspension from that class. Second excessive absence reports are filed with the Dean's office when, in the opinion of the instructors, a student's continued absences warrant his suspension from class.

Students dropped for excessive absence will receive a grade of "W" in the class from which they are dropped.

Classroom Dishonesty

Dishonest work on tests, term papers, and examinations is a serious offense. Plagiarism (the act of using source material of other persons without following the accepted techniques of crediting) is never acceptable behavior in an academic community.

Change of Schedule

Request for change of schedule must be initiated through the student's counselor and will be determined on the basis of whether space is available in the class he wishes to change. The change action is not completed until it has been received and processed by the Registrar's Office with the instructor being notified of the change. No change action will be accepted by the registrar after the first week of classes.

Dropping a Course or Withdrawal from College

A student must drop a class or withdraw from college in the following manner:

1. Obtain a drop or withdrawal form from his counselor and follow the procedure outlined by the counselor.
2. Should circumstances prevent a student from appearing in person to withdraw from college, he may withdraw by mail by writing to the Director of Admissions. No drop or withdrawal requests are accepted by telephone.

Students who drop a class or withdraw from college before the deadline will receive a "W" in each class from which they have withdrawn. The deadline for receiving a "W" is two weeks prior to the end of the semester. After that time a student will receive a performance grade in the course.

If a student leaves without officially withdrawing, he will receive "F" in all subjects.

Auditing a Course

Any person 18 years of age or older may, with the consent of the instructor, enroll in the status of audit. This student may attend classes but not take the examinations or receive credit for the course unless he enrolls in the course again as a regular student. The same fee is charged for auditing as for credit.

Procedures for auditing a course will be administered by the Registrar. No audits will be approved prior to the first day of the second week of classes in any semester. Most lab courses may not be audited. In the case of a student enrolled in collegiate-level courses, the combined number of semester units in credit courses and audit shall not exceed eighteen.

Recommended Academic Load

No student will be permitted to carry more than 18 semester units of course work or more than 5 classes plus physical education without permission of the Assistant Dean of Counseling. Employed students are advised to limit their academic loads in accordance with the following recommendation: If a student carries a full college load (12 semester units or more), he should not work more than 20 hours per week. If he must work more hours, his credit unit load in college should be reduced proportionately.

The recommended load limit for day or evening students who are employed full-time is 6 semester units of course work.

The recommended load limit in a 6-week summer session is 6 semester units of credit. A total of 14 semester units of credit is the maximum that may be earned in any 12-week summer period.

Television Courses

Mountain View College is offering four courses via television. These courses are Government 201, Biology 290 (Man and Environment), English 101 and Psychology 105. Content of and credit for these courses is the same as for similar courses taken on campus.

Television courses include viewing of two 30-minute television programs on KERA — Channel 13 each week, plus reading assignments and study guide assignments. Students come to the Mountain View College campus for an orientation session at the beginning of the semester, for one or two seminars (discussion meetings) and for three or four tests during the semester. These visits to the campus are normally scheduled so that they may be attended either in the afternoon or at night.

Television courses may be taken in conjunction with on-campus courses or by persons who are taking no on-campus instruction.

Classification of Students

1. Freshman: A student who has completed fewer than 30 semester hours.
2. Sophomore: A student who has completed 30 or more semester hours.
3. Part-Time: A student carrying fewer than 12 semester hours work.
4. Full Time: A student carrying 12 or more semester hours of work.

Definition of Acceptable Scholastic Performance

College work is measured in terms of semester credit hours. The number of semester hours credit offered for each course is included with the course description.

Acceptable scholastic performance is the maintenance of a grade-point average of 2.0 (on a four-point scale) or better. A student may not be graduated from any degree or certificate program unless he has a cumulative grade-point average of 2.0 or better. Grade points and hours earned in the Developmental Studies courses are computed when deriving a student's scholastic standing; however, they are not computed for graduation requirements.

Scholastic Probation and Scholastic Suspension

The policies on scholastic probation and scholastic suspension apply to full-time students (12 semester units or more) and to part-time students when they have attempted a total of 12 semester units. These policies are based on a 4.0 grade point scale (see page 32 "Academic Standards").

The following criteria will be used to determine academic standing:

1. Students who have completed one or more semesters in a college will be placed on probation if they fail to maintain a 2.0 cumulative grade point average.
2. Students who have been placed on scholastic probation may be removed from probation when they earn a 2.0 cumulative grade point average.

3. 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 may continue on scholastic probation.
4. Students on probation who do not meet the requirements of paragraph 3 will be placed on scholastic suspension.

The periods of scholastic suspension are: 1) suspension for the first time — one regular semester and 2) subsequent suspension — two regular semesters.

Students previously enrolled in college who are placed on scholastic probation are expected to enroll in a Human Development course. Under special circumstances a counselor may waive this course for probationary students.

Students who have been suspended must file a petition for readmission. The conditions for readmission are established and administered by the Dean of Human Development Programs.

Waiving of Scholastic Deficiency

Any student pursuing an academic transfer program who wishes to transfer to a technical-occupational program may have his earned credits evaluated for the possibility of disregarding any grades of his choice below "C" as long as the student follows the technical-occupational program. The logic of this procedure is that many students do poorly while pursuing a course of studies for which they are not suited but make rapid improvement when faced with tasks more suited to their interests and aptitudes. This procedure is contingent upon the student remaining in a technical-occupational program. A change to an academic transfer program places the student under the original conditions of the academic transfer program including the calculation of a cumulative grade point average of all college credits earned. This procedure will apply both to Mountain View College students and to students transferring from other institutions. The student who wishes to avail himself of this opportunity should state his intentions in writing to the Director of Admissions prior to registration and should assume the responsibility of informing his counselor during the pre-registration advisement session.

Library Obligations

Willful damage to library materials (or property) or actions disturbing to the other users of the Library may lead to revocation of library privileges. Cases involving such damage will be referred for further action by the appropriate authorities.

All books and other library materials must be returned before the end of each semester. No grades will be sent to students who have not returned all such materials or who have unpaid library fines. No transcripts of grades may be sent until the library record is cleared.

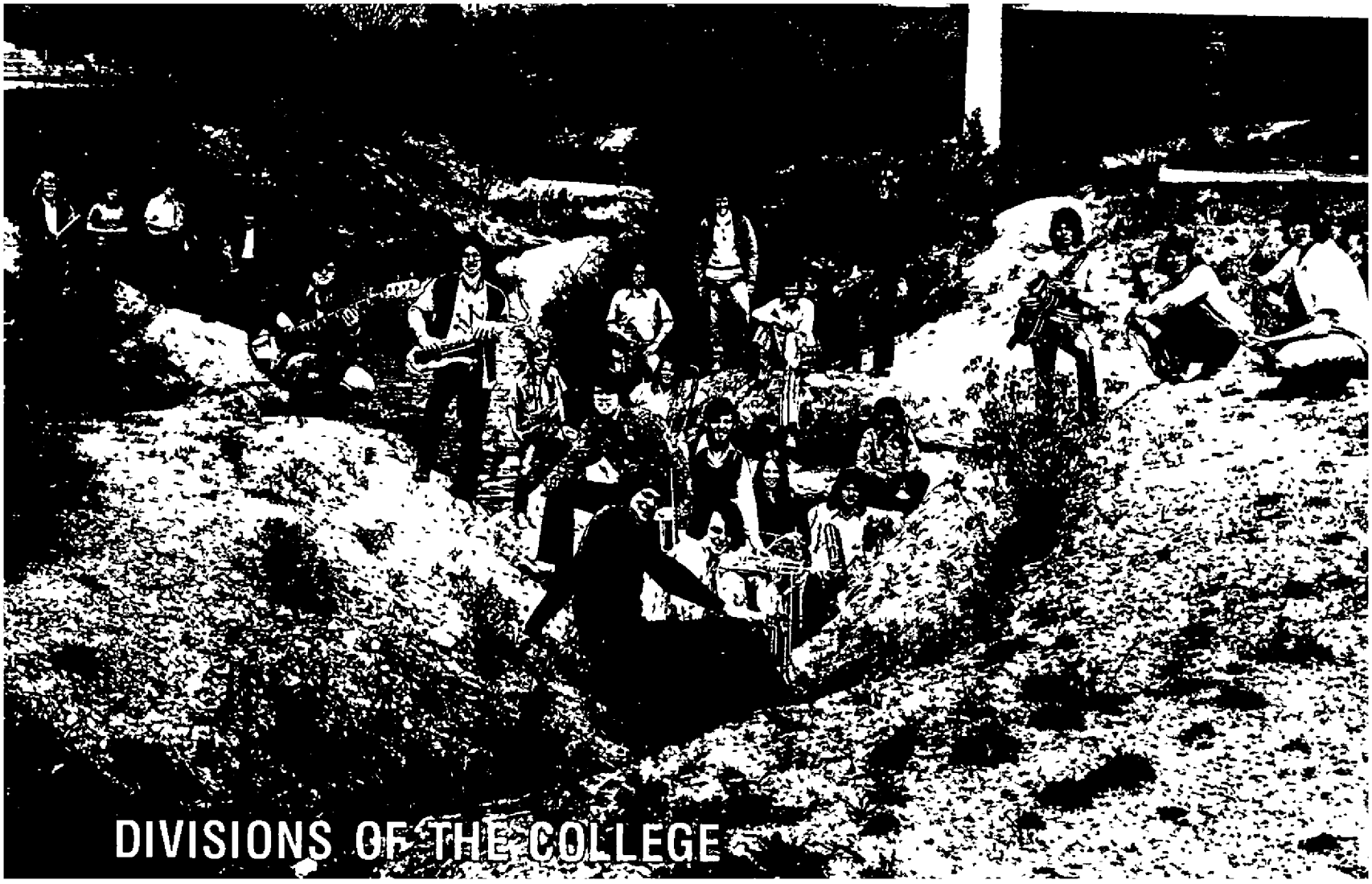
Honors

A full-time student who has completed at least 12 hours of credit and who earns a grade-point average of 3.00-3.49 will be listed on the

college Honor Roll. Full-time students who complete at least 12 hours of credit and who average 3.50-4.00 will be placed on the Dean's Honor List. A part-time student who is taking 6-11 credit hours and who maintains a 3.5 or higher grade-point average will receive Academic Recognition. The Honor Roll, the Dean's Honor List and the Academic Recognition List will be published each semester.

Credit by Examination

A person who believes he is qualified by experience or previous training may take a special examination to establish credit in a particular course. Depending upon the course, the examination may be a section of the College Level Examination Program or a teacher-made test. Not all courses offered at Mountain View College are approved for credit by examination. A list of those credits which may be established through this method is available in the Testing Center. Students will be allowed to earn as many credits through the credit-by-examination procedure as their needs require and ability permits. The last fifteen semester hours required for graduation in any degree or certificate program must be earned in residency and may not be earned through credit by examination. Credit by examination may be attempted only one time in any given course and a grade of "C" or better on the examination is required in order to receive credit. Only currently enrolled students will have the semester hours earned through examination become part of their permanent record. Request for examinations should be made to a counselor who will provide the necessary petition forms and advise the student of the procedure. A student, whether part-time or full-time, will pay an examination fee of $15.00 per examination. This fee must be paid prior to taking the examination and is nonrefundable. Though great effort has been made to interrelate our credit by examination program with transferring four-year institutions, final acceptance of credit by examination achieved for specific degree purposes is determined by that institution. For further information concerning graduation requirements, consult the Degree Requirement section in this catalog.


DIVISIONS OF THE COLLEGE

DIVISIONS OF THE COLLEGE

Business Division

Accounting
Bookkeeping
Computer Science
General Business
Mid-Management
Secretarial Careers

Communications Division

Communications
English
French
German
Journalism
Photography
Spanish
Speech

Developmental Studies Division

Developmental Communications
Developmental Mathematics
Developmental Reading
Developmental Writing
Reading

Human Development Division

Human Development

Humanities Division

Art
Humanities
Music
Philosophy
Theatre

Mathematics and Technology Division

Aviation Administration
Avionics Technology
Electronics Technology
Machine Shop
Mathematics
Pilot Technology

Physical Education Division

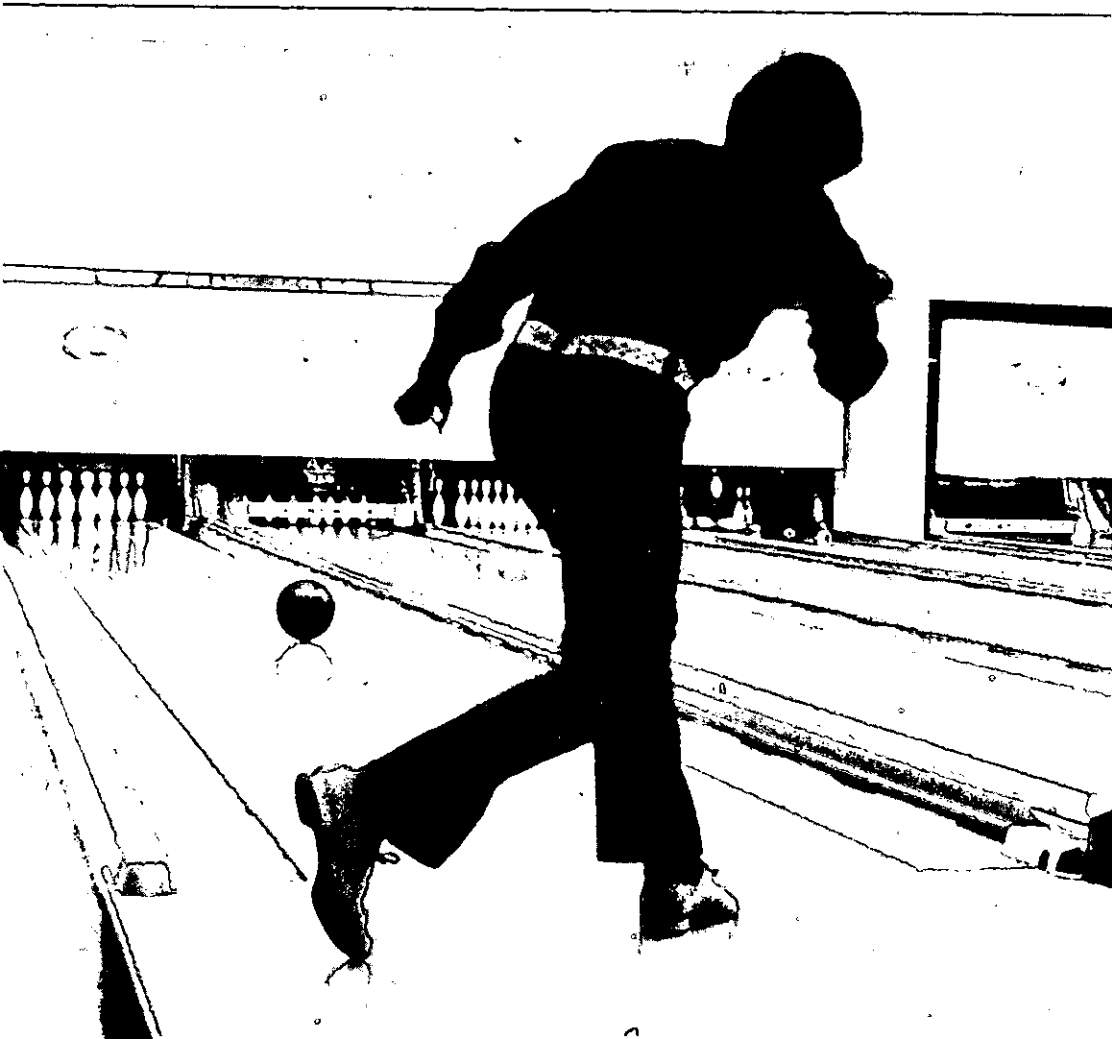
Physical Education Theory
Physical Education Activity

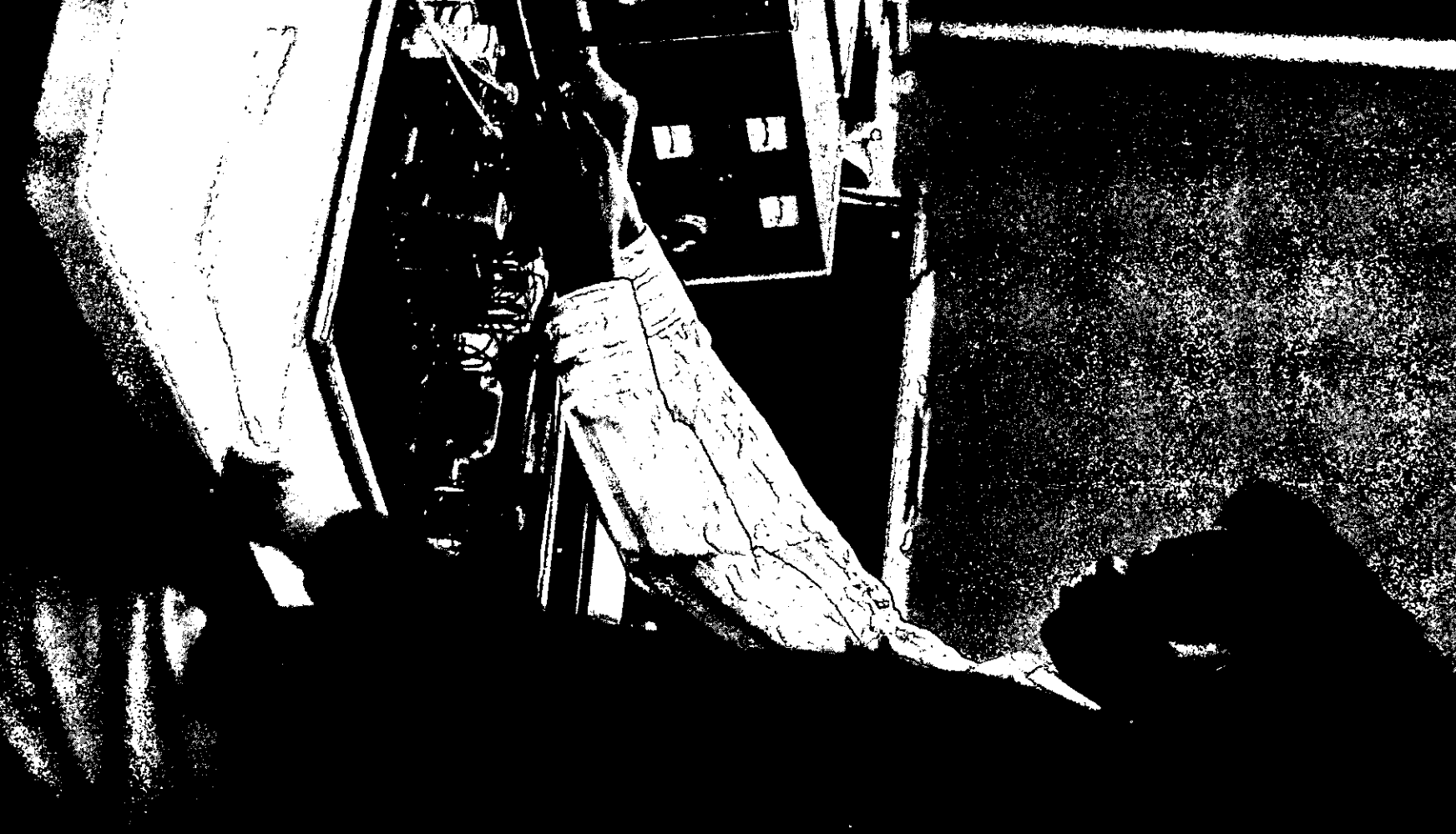
Science and Technology Division

Biology
Blue Print Reading
Chemistry
Drafting
Engineering
Geology
Geography
Horology
Physics

Social and Behavioral Science Division

Anthropology
Economics
Government
History
Psychology
Religion
Social Science
Sociology





COURSES BY ALPHABETICAL LISTING

Anthropology 100
Introduction to Anthropology — **3 Cr. 3 Lec.**

A survey of the origin of mankind involving the processes of physical and cultural evolution, ancient man, preliterate man today. Attention is centered on fossil evidence, physiology and family/group roles and status.

Anthropology 101
Cultural Anthropology — **3 Cr. 3 Lec.**

A survey of the cultures of the world with emphasis on those of North America. The concept of culture, social and political organization; language, religion and magic, elementary anthropological theory.

Art 104
Art Appreciation — **3 Cr. 3 Lec.**

Films, lectures, slides, and discussions on the theoretical, cultural, and historical aspects of the visual arts. Attempts to develop visual and aesthetic awareness, thus relating art to the student as an individual.

Art 105
Survey of Art History — **3 Cr. 3 Lec.**

This course covers the chronological sequence of art from the pre-historic through the Renaissance. Explores the cultural, geophysical, and personal influences on art styles, offering the student a broader range of ideas which will enable him to relate the past to his own work and provide stimuli for his future works.

Art 106
Survey of Art History — **3 Cr. 3 Lec.**

This course covers the chronological sequence of art from the Baroque through the present. Explores the cultural, geophysical, and personal influences on art styles, offering the student a broader range of ideas which will enable him to relate the past to his own work and provide stimuli for his future works.

Art 110
Design I — **3 Cr. 2 Lec., 4 Lab.**

A study of basic concepts of design using two-dimensional materials. Use of line, color, illusion of space or mass, texture and shape in composition. Required of all art majors. Open to all interested students.

Art 111
Design II — **3 Cr. 2 Lec., 4 Lab.**

A study of basic concepts of design with three dimensional materials, using mass, space, movement and texture. Required of all art majors. Open to all interested students. Laboratory fee required.

Art 114
Drawing I — **3 Cr. 2 Lec., 4 Lab.**

A beginning course investigating a variety of media, techniques and subjects, exploring perceptual and descriptive possibilities with consideration of drawing as a developmental process as well as an end in itself. Required of all art majors, open to others who are interested.

Art 115
Drawing II — **3 Cr. 2 Lec., 4 Lab.**

Prerequisite: Art 114. Expansion of Drawing I stressing the expressive and conceptual aspects of drawing including the human figure within a spatial environment. Required of all art majors, open to others who are interested.

Art 116
Introduction to Jewelry I — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 110, Art 111, or permission of instructor. The basic techniques of fabrication and casting of metals, with emphasis on original design. Laboratory fee required.

Art 117
Introduction to Jewelry II — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 116. A continuation of Jewelry I. The study of advanced fabrication and casting techniques, with emphasis on original design. Laboratory fee required.

Art 201
Drawing III — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisites: Art 110, Art 111, Art 114, Art 115, sophomore standing and/or permission of the division chairman. Analytic and expressive drawing of the human figure, stressing study of movement and volume. Laboratory fee required.

Art 202
Drawing IV — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 201, sophomore standing, and/or permission of the division chairman. A continuation of Drawing III with emphasis on individual expression. Laboratory fee required.

Art 205
Painting I — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisites: Art 110, Art 111, Art 114, Art 115 or permission of the instructor. A studio course stressing fundamental concepts of painting with acrylics and/or oils. Emphasis on painting from still life, models, and the imagination.

Art 206
Painting II — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 205. A continuation of Painting I with emphasis on individual expression.

Art 208
Sculpture I — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisites: Art 110, Art 111, Art 114, Art 115 or permission of the instructor. An exploration of various sculptural approaches in a variety of media and using different techniques. Laboratory fee required.

Art 209
Sculpture II — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 208. A continuation of Sculpture I with emphasis on individual expression. Laboratory fee required.

Art 215
Ceramics I — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisites: Art 110, Art 111, Art 114, Art 115 or permission of instructor. Building of pottery forms by coil, slab and use of wheel; glazing and firing. Laboratory fee required.

Art 216
Ceramics II — **3 Cr.** **2 Lec., 4 Lab.**

Prerequisite: Art 215 or permission of instructor. A study of glaze technology and advanced problems in the creation of sculptural and utilitarian ceramic ware. Laboratory fee required.

Aviation Administration 131
Introduction to Aviation — **3 Cr.** **3 Lec.**

General introductory course to the total Aviation Industry covering the history, development, and advances in aircraft from balloon flight to the supersonic transport (SST), economic impact on the business economy, and the sociological effect on people and communities both local and worldwide. Special emphasis on origin and growth of airlines and the aviation industry.

Aviation Administration 133
Air Transportation — **6 Cr.** **3 Lec.**

Prerequisite: AA 131. A study of the need, nature and structure of the air transportation segment of the aviation industry relating to passengers and cargo, both domestic and international. Covers the levels and categories of utilization such as air carrier, air-taxi, commuter, business, and pleasure. Explores basic costs and revenue sources; describes present status, future limiting and growth factors, and legal aspects and characteristics.

Aviation Administration 134
Aviation Law — **3 Cr.** **3 Lec.**

Prerequisite: AA 131 credit or concurrent enrollment in Air Transportation. A study of procedural laws and regulations, local, national, and international relating to both public and private sectors of air commerce. Outlines the development of aviation law from enactment through judicial decisions on application of those laws. Identifies regulatory agencies and quasi-official study and advisory groups along with functions. Special emphasis on flight procedures (flight plans), ports of entry, customs, clearances, contraband, quarantines, aviation hazards and liabilities as they relate to passenger and cargo movements. Develops present legal structure and possible future changes, including reciprocity agreements.

Aviation Administration 232
Transportation, Traffic and Air Cargo — **3 Cr.** **3 Lec.**

Prerequisites: Aviation Administration Freshman Core, credit or concurrent enrollment in Business 136. A study of transportation modes and how these interface to provide efficient transport of passengers and cargo. Emphasis on managerial definition and solution of problems involved at transition/transfer terminals where compatibly scheduled traffic movement is crucial. Includes the evolution of air cargo; the purpose, application, and benefits of air mail, air express, and air freight to modern industry. Discusses the nature of automation, trends, and future development.

Aviation Administration 235
Airline Management — **3 Cr.** **3 Lec.**

Prerequisites: Aviation Administration Freshman Core, Bus 136. A course designed to cover the complex organization, operation, and management of an airline today. Includes planning, facility requirements, financing, aircraft selection criteria, route feasibility studies, market and passenger trends, and population trends affecting load factors. Explores the managerial problem areas unique to airline operations.

Aviation Administration 236
Aviation Marketing — **3 Cr.** **3 Lec.**

Prerequisites: Aviation Administration Freshman Core, Bus 233. The significance and functions of marketing in aviation stressing the airline viewpoint. Includes market research, sales, unique advertising and promotion concepts, traffic, demand analysis, and price determination theory.

Aviation Administration 237
Transportation Regulations and Revenue **3 Cr.**
3 Lec.

Prerequisites: Aviation Administration Freshman Core, AA 231. An in-depth study of regulations, domestic and international, relating to accommodations, tariffs, import-export licensing, rate structuring, bonded warehousing, liability assumption and transfer, and other regulatory factors which directly and indirectly affect the revenues in air transport of passengers and cargo.

Aviation Administration 239
Airport Management **3 Cr.**
3 Lec.

Prerequisites: Aviation Administration Freshman Core, Bus 136. A presentation of the major functions of airport management: adequacy of facilities and services, financing, organization, personnel, maintenance, planning and zoning, operations, revenues and expenses, public relations, ecology, and safety. Includes a study of the socioeconomic effect of airports on the communities they serve.

Avionics Technology 130
Introduction Aircraft Electronic Systems **2 Cr.**
2 Lec.

A survey course introducing the student to the aircraft, the aircraft's electronic systems and their function related to the aircraft, basically how the systems operate, and the information supplied to the aircraft operator.

Avionics Technology 131
Aircraft Communications Systems **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: Credit or concurrent enrollment in ET 193 or equivalent. An in-depth study of aircraft VHF and interphone systems, circuit analysis of typical systems, specialized circuitry, bench maintenance and alignment procedures, related bench and aircraft test equipment, introduction to UHF and HF systems, and related FCC regulations. Laboratory fee required.

Avionics Technology 230
Aircraft Navigation **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 193 and AV 130. A study of typical aircraft navigation systems including VOR, ILS, ADF, and marker beacon. Topics covered for each system include the operation of the system in relation to the ground station, circuit analysis of a typical system, special circuitry, bench maintenance and alignment procedures, and related bench and aircraft test equipment. Laboratory fee required.

Avionics Technology 231
Aircraft Electrical and Instrumentation Sytems **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 193 and AV 130. A study of aircraft electrical power sources, buses, fusing, monitoring and warning devices and the associated instrumentation, magnetic and electronic compasses, and basic autopilot systems. Laboratory fee required.

Avionics Technology 232
Aircraft Radar Systems **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 193 and AV 130. A study of aircraft electronic systems utilizing radar principles such as weather radar, ATC transponder, DME radio altimeters, and Doppler Navigation. X-band weather radar and the ATC transponder will be covered in depth with an introduction to principles of operation of radio altimeters, DME and Doppler systems, bench check and alignment procedures, trouble-shooting, and repair of aircraft radar systems. Laboratory fee required.

Avionics Technology 233
Aircraft Systems Installation, Wiring and Modification **3 Cr.**
1 Lec., 5 Lab.

Prerequisites: ET 193 and AV 130. A laboratory oriented course which gives the student practical experience in installing aircraft equipment, modifying systems and associated wiring, repairing damaged wiring, and performing equipment installations inspections, and accomplishing necessary repairs. Laboratory fee required.

Avionics Technology 234
Aircraft Electronic Systems Checkout and Trouble-Shooting Procedures **4 Cr.**
2 Lec., 5 Lab.

Prerequisites: AV 130 and credit or concurrent enrollment in three additional Avionics Technology courses. Primarily a laboratory course in which the student will perform systems checks of electronic equipment on the aircraft. Procedures for determining the operational condition of the equipment and techniques for correcting equipment malfunctions will be covered. Practical experience in aircraft trouble-shooting and repair will be provided for the student. Application of related test equipment to problem solutions will be stressed. Laboratory fee required.

Biology 101
General Biology **4 Cr.**
3 Lec., 3 Lab.

Prerequisite to all higher level biology courses and must be taken in sequence. Recommended for science majors. The first semester of the two-semester sequence surveying in-depth the principle concepts of biology, including a study of the cell, levels of organization, an introduction to metabolism, and evolutionary relationships. An introductory survey of the plant and animal kingdoms is included which emphasizes the classification and basic structure and function of the more important groups. Laboratory fee required.

Biology 102
General Biology **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: BIO 101. A continuation of BIO 101. Laboratory fee required.

Biology 115
Biological Science **4 Cr.**
3 Lec., 3 Lab.

A presentation of selected topics in biological science for the non-science major including the cell concept, basic chemistry as it relates to biology, an introduction to genetics, cellular processes such as mitosis, meiosis, respiration, photosynthesis, and plant and animal reproduction. Laboratory fee required.

Biology 116
Biological Science **4 Cr.**
3 Lec., 3 Lab.

No Prerequisite. A study of selected topics of biological science for the non-science major including all systems of the human body, disease, drug abuse and aging, evolution, ecology, and man in relation to his environment. Laboratory fee required.

Biology 120
Introduction to Human Anatomy and Physiology **4 Cr.**
3 Lec., 2 Lab.

A two-semester course in anatomy and physiology, introducing the normal structure of the human body, its cells, organs, and systems, and the functioning of these units. This course serves as a foundation for present and future specialization for students of A.D. Nursing and Allied Health disciplines. Other students interested in the study of the functioning of the human body should consult a counselor. No science background is presupposed. Through grounding in the basic chemistry of life processes, cell theory, genetics, embryology and anatomy and physiology will be provided. Coordination of body systems for integral functioning will be stressed. Laboratory fee required.

Biology 121
Introduction to Human Anatomy and Physiology **4 Cr.**
3 Lec., 2 Lab.

Prerequisite: BIO 120. A continuation of BIO 120. Laboratory fee required.

Biology 203
Intermediate Botany **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: BIO 101 and 102. A survey of the major plant groups with emphasis placed on morphology, physiology, classification, life cycles, evolutionary relationships to each other and the economic importance to man. Recommended for science majors. Laboratory fee required.

Biology 216
General Microbiology **4 Cr.**
3 Lec., 4 Lab.

Prerequisites: Bio 102 and CHM 102. A study of microbes with emphasis on classification, growth, nutrition, metabolism, reproduction, and the genetics of microorganisms. Recommended for science majors and science related programs. Laboratory fee required.

Biology 221
Anatomy and Physiology I **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: Bio 102 or approval of instructor. Recommended for science majors. First course of a two course sequence. Structure and function as related to the human skeletal, muscular and circulatory system. Emphasis placed on the inter-relationships of these systems. Laboratory fee required.

Biology 222
Anatomy and Physiology II **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: BIO 221 or approval of 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 inter-relationships of these systems. Laboratory fee required.

Biology 225
Environmental Biology **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: 6 hrs. Biology. A one semester course dealing with the basic principles and techniques of aquatic and terrestrial communities and how these relate to the problems facing man in a modern technological society. Laboratory fee required.

Biology 226
Genetics **4 Cr.**
3 Lec., 3 Lab.

Fundamental concepts in genetics to include Mendelian Inheritance, recombination genetics, the biochemical theory of genetic material and mutation theory. Plant and animal materials will be used to study population genetics, linkage, gene structure and function and other concepts of heredity. Laboratory fee required.

Biology 230
Mammalian Physiology **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: 12 hours of Biology, 8 hours of Inorganic Chemistry, concurrent registration in Organic Chemistry, and consent of instructor. A study of the function of various mammalian systems with emphasis placed on the inter-relationships that exist. Utilization of instrumentation to measure various physiological parameters will be employed. Laboratory fee required.

Biology 290
Man and his Environment **3 Cr.**
3 Lec.

Selected topics affecting man and his environment will be treated through seminars, field studies, and special lectures. Recognized authorities and specialists from the many academic disciplines will be used as guest lecturers and resource persons. Man's responsibility to his environment, both biological and physical, will be the thesis of this course and its presentation will be interdisciplinary. This course is directed to all students interested in the environmental problems of today. (This course is offered on campus and via television.)

Blueprint Reading 177
Blueprint Reading **2 Cr.**
1 Lec., 3 Lab.

The description and explanation of engineering drawings is the content of the course. This includes multiview projection, sections, auxiliaries, bill of materials, symbols, notes, conventions, and standards. The skills of visualization, dimensioning, and sketching of machine parts are covered in the course.

Blueprint Reading 178
Blueprint Reading **2 Cr.**
1 Lec., 3 Lab.

Prerequisite: BPR 177. This course goes beyond the basic course in respect to the kinds and complexities of engineering drawings. The different kinds of prints read are machine, piping, architectural, civil, structural, electrical, electronic, numerical control documents, and aircraft. Calculations required in blueprint reading are learned: tolerances on shafts and holes, gear drives and dimensioning, square root, right triangle trigonometry, true position tolerances, geometric form tolerancing, and calculation of bend allowance.

Bookkeeping
(See Business 131, 132)

Business 105
Introduction to Business **3 Cr.**
3 Lec.

Provides overall picture of business operation; includes analysis of specialized fields within business organization; identifies role of business in modern society.

Business 131
Bookkeeping **3 Cr.**
3 Lec.

The fundamental principles of double-entry bookkeeping as applied to practical business situations. Emphasis is given to the following: financial statements, trial balances, work sheets, special journals, adjusting and closing entries. A practice set covering the entire business cycle will be completed.

Business 132
Bookkeeping **3 Cr.**
3 Lec.

Prerequisite: Bus. 131. Attention will be given to accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations will be introduced.

Business 136
Principles of Management **3 Cr.**
3 Lec.

A study of the process of management including the functions of planning, organizing, leading, and controlling. Particular emphasis on policy formulation, decision making processes, operating problems, communications theory, and motivation techniques.

Business 143
Personal Finance **3 Cr.**
3 Lec.

A study of every-day financial problems encountered in managing personal affairs. Includes financial planning, insurance, budgeting, use of credit, home ownership, savings, investment, and tax problems.

Business 150
Management Training **4 Cr.**
20 Lab.

Prerequisite: Concurrent enrollment in approved Mid-Management Program. Supervised employment in the student's chosen field. Intended to provide practical experience for students preparing for careers in business management. BUS 150 will be offered the first semester.

Business 151
Management Training **4 Cr.**
20 Lab.

Prerequisite: Concurrent enrollment in approved Mid-Management Program. A continuation of Business 150. Business 151 will be offered the second semester.

Business 154
Management Seminar—Role of Supervision **2 Cr.**
2 Lec.

Prerequisite: Concurrent enrollment in BUS 150 and preliminary interview by Mid-Management faculty. Problem analysis and project development for students majoring in Mid-Management. Special emphasis is placed upon the development of management, goal setting and planning, leadership, communication and motivation as applied to the student's work experiences.

Business 155
Management Seminar: Personnel Management **2 Cr.**
2 Lec.

Prerequisite: BUS 150, BUS 154, and concurrent enrollment in BUS 151. A study of the principles, policies, and practices relating to the personnel functions of business as applied to student's work experiences.

Business 160
Machine Transcription **3 Cr.**
3 Lec.

Prerequisite: Credit in BUS 173 or one year of typing in high school. Intensive course in transcribing from recording machines using predicated business letters and other forms of business communication from a variety of professions, industries, and Government agencies. Training in use of major dictating transcribing machines with electric typewriters. Goal is development of employable skill. Familiarization with typewriter related equipment.

Business 161
Office Machines **2 Cr.**
1 Lec., 2 Lab.

Office machines is designed to provide the student with a skill in the operation of such machines as adding machines, printing calculators, and electronic calculators. Emphasis is placed on using the touch system in both speed and accuracy for performing the basic functions, solving problems that require the use of special keys and controls, and solving application problems.

Business 162
Secretarial Training **3 Cr.**
3 Lec.

Prerequisite: Credit in BUS 173 or one year of typing in high school. Special emphasis is given to the most frequently performed secretarial duties. Units of work include filing, skill in the use of duplicating machines, mail, telegraph, postal and shipping service, handling travel details and meeting arrangements. Duties of the receptionist and development of a desirable secretarial appearance and personality are studied.

Business 163
Beginning Shorthand **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Credit in or concurrent enrollment in BUS 173 or one year of typing in high school. Introduction of fundamental principles of Gregg Shorthand, Diamond Jubilee Series. Includes development of ability to read, write and transcribe shorthand outlines. Development of knowledge of mechanics of English.

Business 164
Intermediate Shorthand **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Credit in BUS 163 or one year of shorthand in high school; credit in BUS 173 or one year of typing in high school. Application of principles of Gregg Shorthand to develop the ability to take and accurately transcribe shorthand notes at increased dictation speeds. Includes oral reading of shorthand outlines, speed building dictation and timed mailable transcripts. Training to strengthen knowledge of English mechanics and reinforce typing skills.

Business 171
Introduction to Supervision **3 Cr.**
3 Lec.

Prerequisite: Enrollment in Career Program or consent of the instructor. A course studying today's supervisor and his problems. The course objective is to describe the practical concepts of modern-day, first line supervision. Emphasis is placed on discussing the supervisor's major functions: relations with others, motivation, communication, grievances, recruitment, counseling, and the fundamentals of cost accounting.

Business 173
Beginning Typing — **2 Cr.**, **1 Lec., 2 Lab.**

Fundamental techniques in typewriting are developed. The skills involved in typing manuscripts, business letters and tabulation are introduced. This course is for students with no previous training in typewriting.

Business 174
Intermediate Typing — **2 Cr.**, **1 Lec., 2 Lab.**

Prerequisite: Credit in BUS 173 or one year of typing in high school. Further development of techniques. Emphasis will be placed on problem solving, increasing speed and accuracy in typing business forms, correspondence, and manuscripts.

Business 201
Principles of Accounting — **3 Cr.**, **3 Lec.**

Theory and practice of measuring and interpreting financial data for business units; study of problems of income measurement, such as depreciation, inventory valuation, and credit losses; the operating cycle and the preparation of financial statements.

Business 202
Principles of Accounting — **3 Cr.**, **3 Lec.**

Prerequisite: BUS 201. Accounting procedures and practices applicable to partnerships and corporations; the use of cost data, budgetary controls, analysis and interpretation of financial reports for use by creditors, investors, and management.

Business 206
Principles of Marketing — **3 Cr.**, **3 Lec.**

A study of the scope and structure of marketing institutions in the marketplace today. Analysis of the marketing functions, consumer behavior, market research, sales forecasting and relevant state and federal laws.

Business 230
Salesmanship — **3 Cr.**, **3 Lec.**

A course in general salesmanship involving the factors of successful selling of goods and ideas. Buying motives, sales psychology, customer approach, and sales techniques are studied.

Business 231
Business Correspondence — **3 Cr.**, **3 Lec.**

Prerequisite: Credit in BUS 173 or one year of typing in high school; credit in Communications 131 or English 101. A practical course that includes a study of letter forms, the mechanics of writing, and composing various types of communications. A critical analysis of the appearance and content of representative business correspondence is made.

Business 233
Advertising and Sales Promotion — **3 Cr.**, **3 Lec.**

Introduces the fundamental principles, practices and common media used in persuasive communication. Includes an insight into buyer behavior, use of advertising media to motivate consumer, and methods of stimulating salespeople and retailers. Familiarizes the student with the management of promotion programs with respect to goals, strategies, evaluation and control of promotional activities.

Business 234
Business Law — **3 Cr.** **3 Lec.**

This course is designed to acquaint the student with the historical and ethical background of the law and to familiarize him with present day principles of law. Particular emphasis on contracts, property (bailments, sales, leases, wills, and estates), and torts.

Business 250
Management Training — **4 Cr.** **20 Lab.**

Prerequisite: BUS 150-151; concurrent enrollment in BUS 254. Continuation of supervised employment in the student's chosen field. Intended to provide increased supervisory responsibility for students preparing for careers in business management. BUS 250 will be offered the first semester.

Business 251
Management Training — **4 Cr.** **20 Lab.**

Prerequisite: Bus 150-151. Concurrent enrollment in Business 255. A continuation of Business 250. Business 251 will be offered the second semester.

Business 254
Management Seminar — Organizational Development — **2 Cr.** **2 Lec.**

Prerequisites: BUS 151, 155 and concurrent enrollment in Business 250. A study of the organizational objectives and management of human resources including the various approaches to organizational theory as applied to student's work experiences.

Business 255
Management Seminar — Business Strategy, The Decision Process and Problem Solving — **2 Cr.** **2 Lec.**

Prerequisite: BUS 250, BUS 254 and concurrent enrollment in Business 251. Business strategy and the decision making process applied to the first line supervisor and middle-management positions. Specific emphasis will be placed upon the application of the student's course knowledge and work experiences.

Business 263
Advanced Shorthand — **3 Cr.** **2 Lec., 3 Lab.**

Prerequisite: Credit in BUS 164 or two years of shorthand in high school; credit in BUS 174 or two years of typing in high school. Further development of shorthand skills to attain proficiency required for stenographic work. Emphasis on speed-building dictation, timed typewritten transcription of shorthand notes for mailable letters.

Business 264
Shorthand Transcription — **3 Cr.** **2 Lec., 3 Lab.**

Prerequisite: Credit in BUS 263; credit in BUS 273. Emphasis upon specialized dictation, mailable transcriptions, and vocabulary building. Development of high-level siill in production work meeting office standards.

Business 273
Advanced Typing — **2 Cr.** **1 Lec., 2 Lab.**

Prerequisite: Credit in BUS 174 or two years of typing in high school. Decision making and timed production of all types of business material are emphasized. A continuation of skill development and a review of typing techniques are also stressed. This course will demand accuracy at advanced speeds.

Chemistry 101
General Chemistry **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: DM 093 or equivalent. Designed for science and science-related majors. The course includes the fundamental laws and theories dealing with the structure and interactions of matter and the use of these principles in understanding 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 required.

Chemistry 102
General Chemistry **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: CHM 101. Designed for science and science-related majors, this course is a continuation of CHM 101. The fundamental concepts introduced previously, together with additional ones, are applied to a variety of topics, including solutions and colloids, chemical kinetics and equilibrium, electrochemistry, and nuclear chemistry. Qualitative inorganic analysis is included in the laboratory work. Laboratory fee required.

Chemisty 115
General Chemistry **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: DM 091 or equivalent. Designed for non-science majors, the course traces the development of theoretical concepts and the evolution of these concepts in explaining various observations and laws relating to chemical bonding reactions, states of matter, solution, electrochemistry, and nuclear chemistry. The descriptive chemistry of some common elements and inorganic compounds is included. Laboratory fee required.

Chemisty 116
General Chemistry **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: CHM 115. Designed for non-science majors, this course covers organic chemistry and biochemistry. The important classes of organic compounds are surveyed with the concept of structure providing the central theme. The biochemistry section includes carbohydrates, proteins, lipids, chemistry of heredity, disease and therapy and plant biochemistry. Laboratory fee required.

Chemisty 201
Organic Chemistry I **4 Cr.**
3 Lec., 4 Lab.

Prerequisite: CHM 102. Designed for Science and Science-related majors. An integrated introductory course in organic chemistry dealing with the fundamental types of organic compounds, their nomenclature, classification, reactions, and applications. The reactions of aliphatic and aromatic compounds are discussed in terms of modern electronic theory with emphasis on reaction mechanisms, stereo-chemistry, transition state theory, and technique of organic synthesis. Laboratory fee required.

Chemistry 202
Organic Chemistry II **4 Cr.**
3 Lec., 4 Lab.

Prerequisite: CHM 201. Designed for Science and Science-related majors, this course is a continuation of CHM 201. Emphasis will be given to the further development of aliphatic and aromatic systems, polyfunctional compounds including amino acids, proteins, carbohydrates, sugars, heterocyclic and related compounds. Instrumental techniques will be used to identify compounds. Laboratory fee required.

Chemistry 203
Quantitative Analysis **4 Cr.**
2 Lec., 6 Lab.

Prerequisites: CHM 102, MTH 101 or MTH 104 or equivalent. This course includes the principles of chemistry as applied by the analytical chemist to quantitative determinations. Topics include gravimetry, oxidation-reduction, indicators, and acid-base theory. Laboratory experience focuses on the fundamentals of gravimetric and volumetric analysis with an introduction to colorimetry. Laboratory fee required.

Communications 131
Applied Composition and Speech **3 Cr.**
3 Lec.

The study of English as a practical means of preparing for successful performance in the student's chosen vocation. Emphasis placed upon assembling, organizing, and evaluating material for the composition of letters, applications, résumés, and short reports. Practice in oral expression.

Communications 132
Applied Composition and Speech **3 Cr.**
3 Lec.

Prerequisite: COM 131 or consent of instructor. Enrichment of communication processes with emphasis on oral and written persuasion directly related to occupational training an work experience. Expository techniques of business letters and documented reports. Wide periodical reading.

Computing Sciences 175
Introduction to Computer Science **3 Cr.**
3 Lec.

Provides a basic understanding of the computer and how it is used in a a variety of applications. Covers the history of computer development, vocabulary and broad concepts of design and function. Intended for non-programmers who need a familiarization with computers and its effect on their career.

Developmental Communications 095
Communicative Skills **3 Cr.**
3 Lec.

A course designed for the student who needs grammar, paragraph structure, reading skills, and/or oral communication to enhance his proficiency in language communications. Students will be tested and given prescribed work in one or a combination of the elements of study as the individual needs indicate.

Developmental Communications 120
Communication Skills **3 Cr.**
2 Lec., 2 Lab.

Designed for students with significant problems in communications development causing learning problems. Group sessions are supplemented with individual evaluations to provide a basis for the development of personalized programs based on needs. Inter-departmental planning provides alternative modes of learning. Special attention is given to oral language as the initial language form. The course is organized in terms of skills development in a competency-based mode and enrollment may be accepted on a flexible basis on instructor referral.

Developmental Math 090
Pre-Algebra Mathematics **3 Cr.**
3 Lec.

This course is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages and to strengthen basic skills in mathematics. The course is planned primarily for students who need to review basic mathematical processes. It is the first step in the math sequence and includes an introduction to algebra.

Developmental Mathematics 091
Elementary Algebra **3 Cr.**
3 Lec.

Prerequisite: DM 090 or equivalent. The course is designed to develop an understanding of first year algebra. It includes special products and factoring, fractions, equations, graphs, functions, and an introduction to geometry. The sequence DM 090-091 and DM 093 is preparatory to MTH 101 or MTH 104 as well as a foundation for technical mathematics.

Developmental Mathematics 093
Intermediate Algebra **3 Cr.**
3 Lec.

Prerequisite: One year of high school algebra or DM 091. Includes the terminology of sets, properties of real numbers, fundamental operations on polynomials and fractions, products, factoring, radicals, and rational exponents. Also covered are solutions of linear, fractional, quadratic, and systems of linear equations, coordinate systems, and graphing.

Developmental Reading 090
Techniques of Reading/Learning **3 Cr.**
3 Lec.

DR 090 is designed to meet individual needs for proficiency in reading comprehension, vocabulary development, study skills, and reading for success in academic areas and career advancement. It emphasizes learning how to learn and includes reading/learning experiences developed to strengthen the total educational background of each student. DR 090 and DR 091 are offered in a laboratory setting employing varied instructional methods.

Developmental Reading 091
Techniques of Reading/Learning **3 Cr.**
3 Lec.

DR 091 is designed to meet individual needs for proficiency in reading comprehension, vocabulary development, study skills, and reading for success in academic areas and career advancement. It emphasizes learning how to learn and includes reading/learning experiences developed to strengthen the total educational background of each student. DR 090 and DR 091 are offered in a laboratory setting employing varied instructional methods.

Developmental Reading 092
Reading Lab **1 Cr.**
3 Lab.

The reading lab is a workshop designed to examine and present writings of various subject matters to students needing additional proficiency in comprehension and rate to supplement their course work. The patterns and underlying structures peculiar to a given subject area are investigated. The course is held in a laboratory setting utilizing individualized instruction techniques.

Developmental Writing 090
Writing **3 Cr.**
3 Lec.

DW 090 emphasizes the diagnosis and correction of deficiencies in basic writing skills. Spelling, grammar, vocabulary improvement, and principles of sentence and paragraph structure (as well as experience in organization for composition) are taught in a laboratory utilizing individualized instruction techniques.

Developmental Writing 091
Writing **3 Cr.**
3 Lec.

DW 091 is a sequel to DW 090 and concentrates on the composition process; therefore, it is important to develop the student's skills of organization, transition and revision. His program of composition will vary according to his individual needs, which may include brief, simple forms as well as more complex critical and research writing.

Developmental Writing 092
Writing Lab **1 Cr.**
3 Lab.

DW 092 is a workshop to facilitate writing success for course work and other individual interests. Students are given instruction and supervision in written assignments, including the research paper, and in editing for mechanical effectiveness.

Drafting 135
Reproduction Processes **2 Cr.**
1 Lec., 3 Lab.

A study of equipment and processes used to reproduce technical art: 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. A special section of the course is a study of the rapidly expanding field of computergraphics. Laboratory work includes the preparation of flats for the printing of a brochure. Laboratory fee required.

Drafting 136
Geological and Land Drafting **3 Cr.**
2 Lec., 4 Lab.

Prerequisites: DFT 184 and MTH 196. Involves study of symbols, abbreviations, classifications, scales, types of maps, cartographic and topographic maps, petroleum and geophysics maps, and application of drawing techniques to land surveying, including boundaries, roads, buildings, elevations, plan and profile sheets, cross sections, plotting surveyor's notes, traverses, plot plans and plats.

Drafting 182
Technician Drafting **2 Cr.**
1 Lec., 3 Lab.

A beginning drafting course to enable students to read and interpret engineering drawings. Topics covered include multiview drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams, and printed circuit boards.

Drafting 183
Basic Drafting — **4 Cr.**
2 Lec., 6 Lab.

A beginning course for students who have had little or no previous experience in drafting. The principle objectives are basic understanding of orthographic projection; skill in orthographic, axonometric, and oblique sketching and drawing; lettering fundamentals; applied geometry; fasteners, sectioning; toleranc-ing; auxiliaries; experience in using handbooks design and other resource materials; and development of skills. U.S.A.S.I., government and industrial standards are used. Emphasis is placed on both mechanical skills and graphic theory.

Drafting 184
Intermediate Drafting — **3 Cr.**
2 Lec., 4 Lab.

Prerequisite: DFT 183. The instructional units provide additional understanding of drafting problems, place emphasis on the design function, and introduce several specialized drafting areas that are valuable for the designer. This course includes the detailing and assembling of machine parts, gears and cams, jugs and fixtures, a study of metals and metal forming processes, drawing room standards and reproduction of drawings. The student is assigned to work that requires him to make complete and accurate detail and assembly drawings. Laboratory fee required.

Drafting 185
Architectural Drafting — **4 Cr.**
2 Lec., 6 Lab.

Prerequisite: Dft 183 or equivalent. A course in basic architectural drafting beginning with the development of techniques in architectural lettering, drafting of construction details, using appropriate material symbols and conventions. Working drawing including plans, elevations, sections and details as prepared for building construction including steel, concrete, and timber structural components will be emphasized. Reference materials will be used to provide the draftsman with skills in locating data and in using handbooks.

Drafting 230
Structural Drafting — **3 Cr.**
2 Lec., 4 Lab.

Prerequisites: DFT 183 and MTH 196. A study of stresses, thermal and elastic qualities of materials such as beams and columns, etc.; requires the student to develop structural plans, details and shop drawings of components of buildings to include steel, reinforced concrete, and timber structures. Emphasis will be placed on drafting of appropriate drawings for fabrication and erection of structural components.

Drafting 231
Electronic Drafting — **3 Cr.**
2 Lec., 4 Lab.

Prerequisite: DFT 183. Develops skill in drawing and understanding of drawings used in the electronics industry. Topics include logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed circuit boards, integrated circuits, component packaging, chassis design and current practices.

Drafting 232
Technical Illustration **3 Cr.**
2 Lec., 4 Lab.

Prerequisite: DFT 183. Instruction and experience in the rendering of three-dimensional drawings. Orthographic views and engineer's sketches are developed into isometric, dimetric, perspective, and diagrammatic drawings of equipment and their environments. Mechanical lettering, air brush retouching of photographs, use of commercially prepared pressure sensitive materials, and layout of electronics schematics are included in the course. Laboratory fee required.

Drafting 233
Machine Design **4 Cr.**
2 Lec., 6 Lab.

Prerequisites: PHY 131 and credit or concurrent registration in EGR 189. Consists of the application of the principles of physics, statics, strength of materials, and physical properties of materials to the design of machine elements. Factors considered are function, environment, production, problems, and cost. Emphasis is placed on the practical application of design principles in graphic form.

Drafting 234
Advanced Technical Illustration **4 Cr.**
2 Lec., 6 Lab.

Prerequisite: DFT 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 required.

Drafting 235
Building Equipment (Mechanical and Electrical) **3 Cr.**
2 Lec., 4 Lab.

Prerequisite: DFT 183 or DFT 185. Involves the drawing of plans and details as prepared for mechanical equipment such as air conditioning, plumbing, and electrical systems by using appropriate symbols and conventions. Consideration is given to coordination of mechanical and electrical features with structural and architectural components. Laboratory fee required.

Drafting, Basic
(See Drafting 183)

Economics 201
Principles of Economics I **3 Cr.**
3 Lec.

The fundamental principles of macroeconomics. Economic organization, national income determination, money and banking, monetary and fiscal policy, economic fluctuations and growth. Sophomore standing recommended.

Economics 202
Principles of Economics II **3 Cr.**
3 Lec.

Prerequisite: ECO 201 or the consent of the instructor. The fundamental principles of microeconomics. Theory of demand, supply, and price of factors; income distribution; theory of the firm. Emphasis also on international economics and contemporary economic problems.

Electronics Technology 135
D.C.-A.C. Theory and Circuit Analysis **6 Cr.**
5 Lec., 3 Lab.

Prerequisites: Credit or concurrent enrollment in MTH 195 or equivalent. An accelerated course combining D.C. and A.C. theory in one semester's work. Topics covered include D.C. and A.C. analysis of resistive, capacitive, inductive, and combination circuits, magnetism, resonance, sine wave analysis, series, parallel and combination circuits, and schematic symbols. Laboratory fee required.

Electronics Technology 190
D.C. Circuits and Electrical Measurements **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: Credit or concurrent enrollment in MTH 195 or equivalent. Combines mathematical theory and laboratory fundamentals in direct current circuits. Elementary principles of magnetism, electric concepts and units, diagrams, resistance, series and parallel circuits, simple meter circuits, conductors, and insulators will be emphasized. Laboratory fee required.

Electronics Technology 191
A.C. Circuits **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 190 and credit or concurrent enrollment in MTH 196 or equivalent. Devoted to the study of fundamental theories of alternating current and their applications in various circuits. Laboratory experiments will include power factor, sine wave analysis, resonant circuits, capacitance, inductance, Q of coils, electromagnetism, and resistance.

Electronics Technology 193
Active Devices **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 190 and credit or taken concurrently with ET 191. This is a course in semiconductors (active devices). This course will cover topics such as the physical structure, parameters, linear and non-linear characteristics, and operation action as applied to amplifiers, rectifiers, and electronic switching devices. Laboratory fee required.

Electronics Technology 194
Instrumentation **3 Cr.**
2 Lec., 3 Lab.

Prerequisites: ET 190 and concurrent enrollment in ET 191 and 193 or permission of instructor. A study of electrical measurement and instrumentation devices and how they apply to work situations. Specific devices and measuring instruments in classes of measuring devices including basic A.C. and D.C. measurement meters, impedance bridges, oscilloscopes, signal generators, signal tracers, and tube and transistor testers, concluding with a study of audio frequency test methods and equipment. Laboratory fee required.

Electronics Technology 231
Special Circuits with Communications Applications **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 193 and ET 194. Active devices are applied to circuitry common in communications equipment. Both the theory of operation and practical applications of the circuits in laboratory experiments are included. Circuits including amplifiers, oscillators, detectors, transmitters, modulators, transmission lines, and antennas with application to various types of intelligence transmission and reception are emphasized in the course. Laboratory fee required.

Electronics Technology 232
Analysis of Electronics Logic and Switching Circuits **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 193 and ET 194. The course presents circuitary common to the increasing variety of electronic control systems and automatic measuring systems. These circuits require either a certain output waveform from a device or a specific response of a device to a particular input waveform. Typical circuit functions covered in the course include clamping, gating, switching, and counting. The circuits which perform these functions are voltage discriminators, multivibrators, dividers, counters and AND, or NOR, etc. gating circuits. A review of Boolean algebra and binary numbers will be presented. Emphasis is placed on semiconductor devices. Fluidic switching devices are introduced. Laboratory fee required.

Electronics Technology 233
Industrial and Microwave Electronic Technology **4 Cr.**
3 Lec., 3 Lab.

Prerequisites: ET 194 and ET 231. The microwave portion of this semester's work 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 the semester's work 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. Laboratory fee required.

Electronics Technology 234
Electronic Circuits and Systems **3 Cr.**
6 Lab.

Prerequisites: Must have completed all Electronic courses up to and including ET 231 and may take ET 232 and ET 233 simultaneously with ET 234. A supervised course consisting of design, layout construction and calibration of an electronics project. Students will utilize all tools and equipment available. The student will be required to prepare a term paper which incorporates such material as functions of components, operating specifications, and schematics. The student must develop a project independently through conferences and activities directed by the instructor. Laboratory fee required.

Electronics Technology 235
Fundamentals of Electricity **4 Cr.**
3 Lec., 3 Lab.

An introductory course for students requiring or desiring a background knowledge of electricity for related curriculums or occupations. Topics covered include basic A.C. and D.C. theory, voltage, current and resistance; electrical wiring principles and schematics, transformers, relays, timers, electrical measuring devices, and basic electrical calculations.

Engineering 106
Descriptive Geometry **3 Cr.**
2 Lec., 4 Lab.

Prerequisite: DFT 183 or EGR 105. Provides training in the visualization of three-dimensional structures, and in accurately representing these structures in drawings by analyzing the true relationship between points, lines, and planes. Attention is given to the generation and classification of lines and surfaces, as well as intersections, developments, auxiliaries, and revolutions. Laboratory fee required.

Engineering 186
Manufacturing Processes **2 Cr.**
1 Lec., 2 Lab.

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 required.

Engineering 188
Statics **3 Cr.**
3 Lec.

Prerequisite: MTH 196. A study of force and force systems, resultants, and components of forces, friction, conditions of equilibrium, forces acting on members of trusses and frame structures applying both analytical and graphical methods to the solution of problems.

Engineering 189
Characteristics and Strengths of Materials **3 Cr.**
3 Lec.

Prerequisites: EGR 188 and DFT 184. A study of the characteristics and strengths of materials as they relate to loads, stresses, and deformations within the elastic range.

English 101
Composition and Expository Reading **3 Cr.**
3 Lec.

Writing and reading activities designed to help the student write more clearly and effectively and read more enjoyably and efficiently. This course is offered on campus and via television.

English 102
Composition and Literature **3 Cr.**
3 Lec.

Prerequisite: ENG 101. Writing and reading activities in poetry, drama, the short story, and the novel designed to increase the student's understanding and enjoyment of good literature.

English In The Sophomore Year

(ENG 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 201
British Literature **3 Cr.**
3 Lec.

Prerequisite: ENG 102. A study of significant works of British literature from the Old English period through the eighteenth century.

English 202
British Literature **3 Cr.**
3 Lec.

Prerequisite: ENG 102. Study of important works from the Romantic period to the present.

English 203
World Literature **3 Cr.**
3 Lec.

Prerequisite: ENG 102. Reading and analysis of significant continental European works from the Greek classical period through the Renaissance.

English 204
World Literature **3 Cr.**
3 Lec.

Prerequisite: ENG 102. Study of ten to twelve important post-Renaissance works of continental Europe, England, and America.

English 205
American Literature — **3 Cr.** **3 Lec.**

Prerequisite: ENG 102. Study of the works of the important writers before Whitman in the context of their times.

English 206
American Literature — **3 Cr.** **3 Lec.**

Prerequisite: ENG 102. Reading and analysis of representative works from Whitman to the present.

English 209
Creative Writing — **3 Cr.** **3 Lec.**

Prerequisite: ENG 102. Writing of fiction: short story, poetry and short drama.

English 215
Studies in Literature — **3 Cr.** **3 Lec.**

Prerequisite: ENG 102. The student will read, analyze and discuss selections in literature unified by period, genre, or theme. Course titles and descriptions will be available each semester prior to registration.

English 216
Studies in Literature — **3 Cr.** **3 Lec.**

Prerequisite: ENG 102. The student will read, analyze and discuss selections in literature unified by period, genre, or theme. Course titles and descriptions will be available each semester prior to registration. ENG 216 courses differ from those offered in ENG 215.

French 101
Beginning French — **4 Cr.** **3 Lec., 2 Lab.**

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension and oral expression. Laboratory fee required.

French 102
Beginning French — **4 Cr.** **3 Lec., 2 Lab.**

Prerequisite: French 101 or equivalent. Continuation of French 101 with emphasis on idiomatic language and complicated syntax. Laboratory fee required.

French 201
Intermediate French — **3 Cr.** **3 Lec.**

Prerequisite: French 102 or consent of the instructor. Reading, composition, grammar review and intense oral practice.

French 202
Intermediate French — **3 Cr.** **3 Lec.**

Prerequisite: French 201 or equivalent. Continuation of French 201 with reading selections drawn more directly from contemporary literary sources. Composition.

Geography 101
Geography (Physical) — **3 Cr.** **3 Lec.**

A survey of the physical makeup of the earth: weather and climate, topography, plant and animal life, land and sea. Attention is directed toward the earth in space, use of maps and charts and place geography.

Geography 102
World Geography (Economic) — **3 Cr.** **3 Lec.**

A study of the relation of man to his environment and his utilization of natural resources, dealing with problems of production, manufacture, and distribution of goods throughout the world. The aspects of primitive subsistence and degrees of commercialism are considered.

Geography 103
World Geography (Cultural) **3 Cr.**
3 Lec.

Development of regional variations of culture, including the distribution of races, religions, languages, and aspects of material culture, with emphasis on origins and diffusion.

Geology 101
General Geology (Physical) **4 Cr.**
3 Lec., 3 Lab.

Study of earth materials and processes for science and non-science majors. Includes examination of the earth's interior, magnetism, setting in space, minerals, rocks, structure and geologic processes. Laboratory fee required.

Geology 102
General Geology (Historical) **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: GEO 101. Study of earth materials and processes within a time perspective. For science and non-science majors. Utilizes fossils, geologic maps, and field studies to interpret geologic history. Laboratory fee required.

German 101
Beginning German **4 Cr.**
3 Lec., 2 Lab.

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral expression. Laboratory fee required.

German 102
Beginning German **4 Cr.**
3 Lec., 2 Lab.

Prerequisite: GER 101 or equivalent. Continuation of German 101 with emphasis on idiomatic language and complicated syntax. Laboratory fee required.

German 201
Intermediate German **3 Cr.**
3 Lec.

Prerequisite: GER 102 or equivalent or consent of the instructor. Reading, composition, grammar review and intense oral practice.

German 202
Intermediate German **3 Cr.**
3 Lec.

Prerequisite: GER 201 or equivalent. Continuation of German 201 with reading selections drawn more directly from contemporary literary sources. Composition.

Government 201
American Government **3 Cr.**
3 Lec.

Prerequisite: Sophomore standing recommended. An introduction to the study of political science; origin and development of constitutional democracy (United States and Texas); federalism and intergovernmental relations; local government; parties, politics and political behavior. Satisfies requirements for Texas. State Teacher's Certification. This course is offered on campus and via television.

Government 202
American Government **3 Cr.**
3 Lec.

Prerequisite: GOV 201 and sophomore standing recommended. A study of the United States and Texas legislative process, the executive and the bureau structure, the judicial process, civil rights and liberties, domestic policies. Other topics include foreign relations and national defense. Satisfies requirements for Texas State Teacher's Certification.

History 101
History of the United States — **3 Cr.**, **3 Lec.**

A general presentation of United States History, commencing 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.

History 102
History of the United States — **3 Cr.**, **3 Lec.**

Prerequisite: HIS 101 recommended. A survey of the unfolding of United States history from the Reconstruction Era to the present day. The study includes social, economic and political aspects of American life and follows the development of the United States as a world power.

History 105
Western Civilization — **3 Cr.**, **3 Lec.**

A survey of the background for development of civilization in the West from ancient time through the Enlightenment; the Mediterranean world including Greece and Rome; the Middle Ages and the beginnings of modern history. Particular attention is paid to Renaissance, Reformation, the rise of the National state, the development of parliamentary government, and the influences of European colonization.

History 106
Western Civilization — **3 Cr.**, **3 Lec.**

The unfolding of the pattern of modern western civilization from the Enlightenment to current times. A study of the Age of Revolution and the beginning of industrialism; the nineteenth century and the social, economic, and political factors of current world history.

History 120
Afro-American History — **3 Cr.**, **3 Lec.**

A study of the role of the Negro in American History; overview of the slave trade and slavery in the United States; focus on contributions of the Negro in the U.S. from colonial times. Emphasis on political, economic and sociological factors of the 20th century.

History 204
American Minorities — **3 Cr.**, **3 Lec.**

Prerequisite: SOC 101 and/or six hours of U.S. History recommended. The principle minority groups in American society; their sociological significance and historic contributions. An emphasis will be placed on problems of intergroup relations, social movements and related social changes occurring on the contemporary American scene. The student may register for either History 204 or Sociology 204.

Horology 131
Introduction to Horology: Clock Theory and Repair — **5 Cr.**
Lec. 1 Hr./week
Lab. 14 Hrs./week
Total 210 Contact Hrs.

Includes history, design, and repair techniques of French, German, English and early American clock movements, both weight-driven and spring-driven. The emphasis in laboratory practice is on cleaning procedures, rebushing plates, repivoting wheels, aligning strike and chime sequences for French strike and rack-and-snail. The wide variety of movement design studies covers grandfather, wall, shelf, chiming, and tower clocks. The student will develop skill in the use and care of specialized hand tools and equipment. Completion of this course may allow the student to enter Horology 133 and Horology 134 without an advanced placement examination. Laboratory fee required.

Horology 132

Introduction to Horology: Modern Clock Theory and Repair

5 Cr.
Lec. 1 Hr./week
Lab. 14 Hrs./week
Total 210 Contact Hrs.

An essential course for the retail horologist/clockmaker. Covers design factors and repair techniques of American, German, and Swiss clock movements with weight, spring, motor, and battery power in the 30-hour, 8-day, 31-day, and 400-day variations. Laboratory practice will develop the student's skill in the repair and adjustment of anniversary, cuckoo, travel, alarm, desk, mantel, and electric clocks. Completion of this course may allow the student to enter Horology 133 and Horology 134 without an advanced placement examination. Laboratory fee required.

Horology 133

Watch Cleaning and Assembly

6 Cr.
Lec. 1 Hr./week
Lab. 15 Hrs./week
Total 256 Contact Hrs.

Prerequisites: HOR 131 and HOR 132 or a practical and written qualification test. The student will develop skills in hand cleaning and ultrasonic machine cleaning of watch parts, in removing rust and scale, in inspection and in proper lubrication of subassemblies. Learning will progress from the pocket watch through wrist and baquette sizes. Special emphasis is placed on the use and care of precision hand tools, personal work habits and attitudes, and on polishing care, crystal, and band. An introduction to timing record analysis is part of this course. Laboratory fee required.

Horology 134

Watch Part Replacement

6 Cr.
Lec. 1 Hr./week
Lab. 15 Hrs./week
Total 256 Contact Hrs.

Prerequisites: HOR 131 and HOR 132 or advanced placement examination. The objective of this course is to develop the student's skill to the highest degree in the precise selection and replacement of damaged watch parts. Detailed procedures for changing balance staffs, stems, crowns, crystals, gaskets, hands, roller jewels, balance and plate jewels, pallet jewels, and mainsprings are covered. Emphasis is placed on proper nomenclature, movement identification, and metric measurement. The use and care of many special tools will be introduced, and the staking tool in particular will be mastered as the most versatile repair tool for the horologist. Laboratory fee required.

Horology 135

Advanced Watchmaking I

5 Cr.
Lec. 3 Hrs./week
Lab. 32 Hrs./week
Total 210 Contact Hrs.

Prerequisites: HOR 133 and HOR 134 or advanced placement examination. This is an introductory course to escapement work, position adjusting, and complicated watch movement. Laboratory practices will emphasize hairspring straightening, balance wheel truing and poising, roller and pallet jewel tightening, overhauling of various calendar and self-winding devices, several types of electric watch movement, and the stopwatch. Laboratory fee required.

Horology 136
Advanced Watchmaking II — **5 Cr.**
Lec. 3 Hrs./week
Lab. 32 Hrs./week
Total 210 Contact Hrs.

Prerequisites: HOR 133 and HOR 134. The fine points of the horologist training are presented in this course. Student will match a level escapement by adjusting lock, drop, draw, and impulse on the large classroom escapement model. Timing machine records will be analyzed to determine causes of error and to prove corrective action. Additional laboratory practices will include overhaul and adjustment of wrist chronographs and electronic movements. Advanced-design digital watch will be discussed. Laboratory fee required.

Horology 137
Customer and Business Relations — **2 Cr.**
Lec. 2 Hrs./week
Total 32 Contact Hrs.

This course will develop in the student a confident attitude toward his contacts with business people and the general public as a customer. Emphasis is placed on estimating repair work, record keeping, ordering of materials and parts, trade organizations and periodicals for the horologist, personal and work habits, simple bookkeeping, insurance, career advancement and other avenues of endeavor for the competent horologist.

Human Development 105
Basic Processes of Interpersonal Relationships — **3 Cr.**
3 Lec.

A course in human development designed to explore interpersonal relations through a study of theory and concepts of small group processes and actual participation in the human experience. Students will be given an opportunity to participate in experiences planned to increase one's sensitivity to self and to others. A variety of activities are planned, partly by each class, designed to meet certain specific human needs of the students in the class. Open to freshmen and sophomores.

Human Development 106
Personal and Social Growth — **3 Cr.**
3 Lec.

A course which deals with human development from the standpoint of the interaction between a person and his society. Understanding of self, the influences of society contributing to the development of self, and the success of the individual within a society are investigated. Adjustment to family, school, and society is developed.

Human Development 107
Developing Leadership Behavior — **3 Cr.**
3 Lec.

A course in human development designed to meet specific needs of students through participation in activities. The focus of this course will be on the development of group dynamics, leadership, and human relations skills. Students will be required to participate in the management experience of planning, execution, and evaluation of activities. The theoretical body of knowledge regarding leadership development and growth in group dynamics and management skills will be emphasized.

Humanities 101
Introduction to the Humanities **3 Cr.**
3 Lec.

Through an examination of interrelated examples of man's creative achievements, the Humanities course attempts to enlarge awareness and increase understanding of the nature of man and the values of human life.

Journalism 101
Introduction to Mass Communications **3 Cr.**
3 Lec.

A survey course designed to provide students with a panoramic view of the field of mass communications and an understanding of the role of mass media in modern society. Not restricted to journalism majors.

Journalism 102
News Gathering and Writing **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Typing ability. Beginning reporting, study of types of news, leads, body treatment of story, feature in lead, facts, background, and practice of writing straight news story. Required for all Journalism majors.

Journalism 103
News Gathering and Writing **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Jour. 102. Required for all journalism majors. A continuation of Journalism 102. The writing of more complex types of news stories. Specialized writing in the fields of sports, police news, markets, finance, society, amusements, government, and news interest to women. Additional laboratory work on the student newspaper.

Journalism 104
Student Publications **1 Cr.**
3 Lab.

Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with Journalism 102 or 103. Credit limited to one hour per semester. MAY BE REPEATED FOR A TOTAL OF THREE UNITS CREDIT.

Journalism 105
Student Publications **1 Cr.**
3 Lab.

Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with Journalism 102 or 103. CREDIT LIMITED TO ONE UNIT PER SEMESTER.

Journalism 201
Editorial and Feature Writing **3 Cr.**
3 Lec.

Prerequisites: 6 hours of Journalism or consent of instructor. Emphasis is on handling of difficult news stories, editorial matter, and feature material. Research and interviewing techniques are emphasized with careful attention to development of feature stories for use in newspapers and magazines.

Journalism 202
Student Publications **1 Cr.**
3 Lab.

Prerequisite: Permission of instructor. Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with Journalism 102 or 103. CREDIT LIMITED TO ONE UNIT PER SEMESTER.

Journalism 203
Student Publications **1 Cr.**
3 Lab.

Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken concurrently with Journalism 102 or 103. CREDIT LIMITED TO ONE UNIT PER SEMESTER.

Journalism 204
News Editing and Copy Reading **3 Cr.**
3 Lec.

Prerequisite: Journalism 102. A detailed course in editing news for presentation in the newspaper and on radio and television. Special emphasis on writing headlines and laying out pages.

Machine Shop 133
Basic Lathe **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

A basic course designed to provide practical experience in the areas of hand tools, layout, and hand threading. Introduction to various types of drill press work. Introduction to the engine lathe. The student also becomes familar with the various types of cutting tools and operations performed on the engine lathes. Special emphasis is placed on safety measures. Instruction in the types and application of machine oils and greases, coolants and cutting oils is included. Laboratory fee required.

Machine Shop 134
Basic Milling Machine **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

A basic course designed to provide practical experience in the area of hand threading. Introduction to various types of drill press work. Instruction is provided in some of the fundamental operations common to milling machine practice. The student becomes familiar with the various parts of the machine and with various cutters and arbors. Special emphasis is placed on safety measures. Instruction in the types and applications of machine oils and greases, coolants and cutting oils is included. Laboratory fee required.

Machine Shop 135
Intermediate Lathe — **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

Prerequisite: MS 133. Additional experience and skill are gained on the engine lathe. Workpieces become more complicated and tolerances more exacting. Operations are performed on machines of various sizes. Use is made of various work holding methods in performing the operations of drilling, boring, and reaming on the lathe. Introduction to the various precision layout and measuring tools and practices is included. The student also develops further skill in determining cutting speeds and feeds. Laboratory fee required.

Machine Shop 136
Intermediate Milling Machine — **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

Prerequisite: MS 134. Additional experience and skill are gained on the milling machine. Workpieces become more complicated and tolerances more exacting. Operations are performed on machines of various sizes and types. Use is made of various workholding methods. Introduction to the various precision layout and measuring tools and practices is included. The student also develops further skill in determining cutting speeds and feeds. Laboratory fee required.

Machine Shop 151
Basic Machine Operation for Weld Tooling — **3 Cr.**
Lec. 1 Hr./week
Lab. 4 Hrs./week
Total 80 Contact Hrs.

This is a basic course designed to provide the welding student with the fundamental knowledge required to build simple weld tooling. Shop safety will be stressed throughout. Actual weld fixture components and/or weld fixtures will be fabricated using engine lathes, milling machine, and drill presses. Classroom activity will cover all supportive information required to accomplish the work program. Laboratory fee required.

Machine Shop 233
Advanced Lathe — **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

Further experience is gained on the engine lathe. Skill is developed in making open setups. Location of holes by means of layout and triangulation is made. Further use of various attachments and accessories used on the engine lathe is made. Introduction to surface grinding and grinding wheel safety is made during this semester. Laboratory fee required.

Machine Shop 234
Advanced Milling Machine — **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

Further experience is gained on the milling machine. Skills is developed in making open setups. Location of holes by means of layout and triangulation is made. Further use of various attachments and accessories used on the milling machine is made. Introduction to surface grinding and grinding wheel safety is made during this semester. Laboratory fee required.

Machine Shop 235
Applied Lathe **5 Cr.**
Lec. 1 Hr./week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

During this semester emphasis is placed on independent planning in selecting the means and methods of performing laboratory assignments on the lathe. Emphasis will be placed on interchangeability of workpieces, fits, and finishes. An attempt will be made to encourage initiative and ingenuity. During this semester an introduction will be made to tool and cutter grinding. Laboratory fee required.

Machine Shop 236
Applied Milling Machine **5 Cr.**
Lec. 1 Hr. /week
Lab. 8 Hrs./week
Total 144 Contact Hrs.

During this semester emphasis is placed on independent planning in selecting the means and methods of performing laboratory assignments on the milling machine. Emphasis will be placed on interchangeability of workpieces, fits, and finishes. An attempt will be made to encourage initiative and ingenuity. During this semester an introduction will be made to tool and cutter grinding. Laboratory fee required.

Mathematics 101
College Algebra **3 Cr.**
3 Lec.

Prerequisite: DM 093 or two years of high school algebra and satisfactory score on proficiency examination. (Students registering for MTH 101 will be counseled individually by their instructors on the basis of background and the results of a proficiency examination given at the beginning of the semester. Every effort will be made to register the student in a mathematics course commensurate with his background, ability, and educational goals.) Introduction to set operations, real and complex numbers, and operations on them. A study of the functions and relations most commonly needed, especially absolute value, polynomial functions, and rational functions, together with equations, obtained from these functions. Includes linear, quadratic, and higher degree equations, and systems of equations. Accompanying these will be appropriate auxiliary topics such as determinants, Cramer's rule, some elementary aspects of the theory of equations, progressions, the binomial theorem? and algebraic proof.

Mathematics 102
Plane Trigonometry **3 Cr.**
3 Lec.

Prerequisite: MTH 101. Angular measure, functions of angles, derivation of formulae, identities, solution of triangles, equations, inverse trigonometric functions, logarithms, and complex numbers.

Mathematics 104
Elementary Functions and Coordinate Geometry I — **5 Cr. 5 Lec.**

Prerequisite: Two years of high school algebra or DM 093. Study of the concept of function, polynomials of one variable, arithmetic and geometric sequences, combinations and the binomial theorem, rational functions and polynomials of more than one variable, exponential functions, logarithmic functions, trigonometric functions, functions of two variables, and analytical geometry which includes conics, transformation of coordinates, polar coordinates, and parametric equations.

Mathematics 105
Elementary Functions and Coordinate Geometry II — **5 Cr. 5 Lec.**

Prerequisite: MTH. 104. A continuing study of the topics of Math 104.

Mathematics 106
Elementary Functions and Coordinate Geometry III — **5 Cr. 5 Lec.**

Prerequisite: Two years of high school algebra and one semester of trigonometry. Study of the algebra of functions and coordinate geometry to include the following: polynomial and rational, exponential, logarithmic, trigonometric functions, functions of two variables, and analytical geometry which includes conics, transformation of coordinates, polar coordinates, and parametric equations.

Mathematics 107
Fundamentals of Computing — **3 Cr. 3 Lec.**

Prerequisite: Two years high school algebra or DM 093. The content of this course includes a study of algorithms and an introduction to a procedure oriented language with general applications.

Mathematics 111
Mathematics for Business and Economics I — **3 Cr. 3 Lec.**

Prerequisite: Two years of high school algebra or DM 093. A study of equations and inequalities; functions to include: linear, quadratic, polynomial, rational, exponential, and logarithmic functions; and linear programming. Applications to business and economic problems are emphasized.

Mathematics 112
Mathematics for Business and Economics II — **3 Cr. 3 Lec.**

Prerequisite: MTH 111. Study of sequences and limits, differential calculus, integral calculus, optimization, and appropriate applications.

Mathematics 115
College Mathematics I — **3 Cr. 3 Lec.**

Prerequisite: DM 093 or one year of high school algebra and one year of high school geometry or two years of high school algebra. A course designed for liberal arts students which includes the study of logic, mathematical patterns, mathematical recreations, systems of numeration, mathematical systems, sets and statements, and sets of numbers. Historical aspects of the above topics will also be emphasized.

Mathematics 116
College Mathematics II — **3 Cr. 3 Lec.**

Prerequisite: MTH 115. A course designed for liberal arts students which includes the study of algebra, linear programming, permutations, combinations, probability, and geometry. Historical aspects of the above topics will also be emphasized.

Mathematics 117
Fundamental Concepts of Mathematics for Elementary Teachers — **3 Cr. 3 Lec.**

Prerequisite: DM 093 or equivalent. The content of the course includes a study of the structure of the real number system, geometry, and mathematical analysis with emphasis on the development of basic concepts in mathematical thinking needed for elementary teachers.

Mathematics 121
Analytic Geometry — **3 Cr. 3 Lec.**

Prerequisite: MTH 102 or equivalent. Introduction to real numbers, distance, the straight line, the circle, conics, transformations of coordinates, polar coordinates, parametric equations and three-dimensional space.

Mathematics 126
Introductory Calculus — **5 Cr. 5 Lec.**

Prerequisite: MTH 105 or MTH 106 or MTH 121 with consent of instructor. Study of limits, continuity, derivatives, slopes, tangents, chain rule, implicit differentiation, higher derivatives, differentials, integration, applications of differential and integral calculus, and trigonometric and inverse trigonometric function.

Mathematics 130
Business Mathematics — **3 Cr. 3 Lec.**

Prerequisite: DM 091 or the equivalent. Skill in arithmetic essential, simple and compound interest, bank discount, payroll, taxes, insurance, markup and markdown, corporate securities, depreciation, and purchase discounts. This course is intended primarily for specialized occupational programs.

Mathematics 139
Applied Mathematics — **3 Cr. 3 Lec.**

Prerequisite: DM 091 or equivalent. Commercial, technical, and more simple scientific uses of mathematics. An effort will be made to tailor the course to fit the needs of the students enrolled in each section.

Mathematics 195
Technical Mathematics — **3 Cr. 3 Lec.**

Prerequisite: DM 091 or the equivalent. A course designed for technical students covering a general review of arithmetic; a treatment of the basic concepts and the fundamental facts of plane and solid geometry, computations with the slide rule, units and dimensions, a treatment of the terminology and concepts of elementary algebra, functions, coordinate systems, systems of simultaneous equations, stated problems, determinants, progressions, and the binomial theorem.

Mathematics 196
Technical Mathematics — **3 Cr. 3 Lec.**

Prerequisite: MTH 195. A course for technical students which includes a study of the following: The trigonometric functions of angles, trigonometric identities, inverse trigonometric functions, trigonometric equations, complex numbers, logarithms, vectors, and the solution of triangles.

Mathematics 202
Introductory Statistics **3 Cr.**
3 Lec.

Prerequisite: Two years of high school algebra, or MTH 104, or MTH 111 or equivalent. Study of collection and tabulation of data, bar charts, graphs, sampling, averages, dispersion, correlation, index numbers, normal curve, probability, and applications to various fields.

Mathematics 221
Linear Algebra **3 Cr.**
3 Lec.

Prerequisite: MTH 227 or equivalent. Study of matrices, linear equations, dot products, cross products, geometrical vectors, determinants, dimensional space, and linear transformation.

Mathematics 227
Mathematical Analysis I **4 Cr.**
4 Lec.

Prerequisite: MTH 126 or equivalent. A continued study of techniques of differentiation and integration, including logarithmic and exponential functions, parametric equations, polar coordinates, hyperbolic functions and vectors.

Mathematics 228
Mathematical Analysis II **3 Cr.**
3 Lec.

Prerequisite: MTH 227 or equivalent. A continued study of vectors, introduction to functions of several variables, multiple integrals, indeterminate forms, and infinite series.

Music 101
Freshman Theory **4 Cr.**
3 Lec., 3 Lab.

Development and cultivation of musicianship skills, especially in the areas of tonal and rhythmic perception and articulation. Presentation of the essential elements of music; introduction to sight-singing, keyboard, and notation.

Music 102
Freshman Theory **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: MUS 101 or consent of instructor. Introduction to part-writing and harmonization with triads and their inversions; classification of chords; seventh chords, sight-singing, dictation, and keyboard harmony.

Music 104
Music Appreciation **3 Cr.**
3 Lec.

A concise survey of the basic elements of music and their application in the music literature of Western civilization, particularly from the Baroque to the present. Relevant cultural influence upon the music of each era are observed.

Music 105
Italian Diction **1 Cr.**
2 Lab.

A study of the phonetic sounds of the Italian language, with selected vocabulary and little or no conversation. Primarily for voice majors.

Music 106
French Diction **1 Cr.**
2 Lab.

A study of the phonetic sounds of the French language, with selected vocabulary and little or no conversation. Primarily for voice majors.

Music 107
German Diction **1 Cr.**
2 Lab.

A study of the phonetic sounds of the language, with selected vocabulary and little or no conversation. Primarily for voice majors.

Music 110
Music Literature **3 Cr.**
3 Lec.

A course dealing with the characteristics of sound, the elements of music, performance media, and musical texture as seen in the music of recognized composers in the major periods of music history. Special emphasis is given to the music of the late Gothic, Renaissance, and Baroque eras.

Music 111
Music Literature **3 Cr.**
3 Lec.

Prerequisite: MUS 110. A continuation of the studies introduced in Music 110. A study of the compositional procedures and forms employed by the creators of music. Attention is focused upon the music of the Classical, Romantic, and Modern periods.

Music 113
Foundations in Music I **3 Cr.**
3 Lec.

Emphasis upon participation and the necessary skills for satisfactory performance in singing, playing an instrument, listening, creating rhythmic responses. Development of increasing ability to manage notation (music reading). Courses designed specifically for the non-music major.

Music 114
Foundations in Music II **3 Cr.**
3 Lec.

Prerequisite: MUS 113. A continuation of Music 113.

Music 117
Piano Class I **1 Cr.**
2 Lab.

Class instruction in the areas of basic musicianship and piano skills designed primarily for those with no knowledge in piano skills. Open to all students.

Music 118
Piano Class II **1 Cr.**
2 Lec.

Includes techniques, skills, harmonization, transposition, improvisation, accompanying, sightreading, and performing various styles of repertoire. Open to all students.

Music 119
Guitar Class I **1 Cr.**
2 Lab.

Class instruction covering the basics of guitar skills, designed primarily for those with limited knowledge in the reading of music or playing the guitar. Open to all students.

Music 120
Guitar Class II **1 Cr.**
2 Lab.

Prerequisite 119 or the equivalent. A continuation of the skills introduced in Music 119 with emphasis on perfecting classical guitar techniques and music reading skills.

Music 121-141
Applied Music-Minor **1 Cr.**
1 Lec.

Private instruction in the student's secondary area. One half hour lesson a week. Open to students registered in music theory, ensembles, and other music major or minor courses. Concurrent enrollment in these courses is accepted. Fee required.

Music 150
Chorus **1 Cr.**
3 Lab.

Prerequisite: Consent of instructor. Open to all students of the college, the chorus studies and performs a wide variety of music representing the literature of the great eras of music history.

Music 151
Voice Class I **1 Cr.**
2 Lab.

A course teaching the principles of breathing, voice production, tone control, enunciation and phrasing. Two group lessons a week. Open to all non-voice majors.

Music 152
Voice Class II **1 Cr.**
2 Lab.

A continuation of Music 151 with emphasis on solo singing, appearance in studio recital, stage deportment, and personality development. Open to all non-voice majors. Two group lessons a week.

Music 155
Vocal Ensemble **1 Cr.**
3 Lab.

A select group for mixed voices concentrated upon excellence of performance. Membership is open only to members of the chorus through an audition with the director.

Music 171
Woodwind Ensemble **1 Cr.**
3 Lab.

Select group of instrumentalists offering experience in the reading and performing of literature for small ensembles. Membership through audition with the appropriate director.

Music 172
Brass Ensemble **1 Cr.**
3 Lab.

Select group of instrumentalists offering experience in the reading and performing of literature for small ensembles. Membership through audition with the appropriate director.

Music 173
Percussion Ensemble **1 Cr.**
3 Lab.

Select group of instrumentalists offering experience in the reading and performing of literature for small ensembles. Membership through audition with the appropriate director.

Music 174
Keyboard Ensemble **1 Cr.**
3 Lab.

Select group of instrumentalists offering experience in the reading and performing of literature for small ensembles. Membership through audition with the appropriate director.

Music 175
String Ensemble **1 Cr.**
3 Lab.

Select group of instrumentalists offering experience in the reading and performing of literature for small ensembles. Membership through audition with the appropriate director.

Music 176
Symphonic
Wind Ensemble **1 Cr.**
3 Lab.

The symphonic Wind Ensemble functions as a group in which students study and perform stylistic literature of all periods. Required of all instrumental music majors.

Music 181
Lab Band **1 Cr.**
3 Lab.

Prerequisite: Permission of the instructor. The lab band functions as a group in which students study and perform all forms of commercial music; i.e. jazz, pop, ballad, rock. Student arranging, composing, and conducting is encouraged.

Music 199
Recital **1 Cr.**
2 Lab.

One period per week designed to allow students of private lessons an opportunity to perform before an audience. Required of all music students and open to all other students. Credit for this course does not apply to the associate degree.

Music 201
Sophomore Theory **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: Music 101-102 or consent of instructor. A continuation of freshman theory, including a study of larger forms, thematic development, chromatic chords including the Neapolitan sixth and augmented sixth chords, diatonic seventh chords with advanced sight-singing, keyboard harmony and ear training.

Music 202
Sophomore Theory **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: MUS 201 or equivalent or by consent of instructor. A continuation of Music 201, including a study of sonata-allegro form, ninth, eleventh and thirteenth chords, exploration of new key schemes, Impressionism, melody, harmony, tonality in twentieth century music, twentieth century formal processes as they apply to twentieth century Music with a comparable advance in sight-seeing, keyboard harmony and ear training.

Music 221-241
Applied Music-Concentration **2 Cr.**
1 Lec.

Private instruction in the area of the student's concentration. Two half hour lessons a week. Open to students registered in music theory, ensembles, and other music major or minor courses. Fee required.

Music 251-270
Applied Music-Major **3 Cr.**
1 Lec.

Private instruction in the area of the student's major instrument. Primarily for music performance majors. Two half hour lessons a week. Open to students registered in music theory, ensembles, and other music major or minor courses. Fee required.

Office Machines
(See Business 161)

Philosophy 102
Introduction to Philosophy **3 Cr.**
3 Lec.

A survey course designed to acquaint the student with some of the fundamental problems in philosophy and with methods used to deal with them. Some principal views, both ancient and modern, are examined as possible solutions.

Philosophy 105
Logic **3 Cr.**
3 Lec.

An analysis of the principles of logical thinking. An effort is made to apply logic's methods and tools to real life situations. Fallacies, definitions, analogies, syllogisms, Venn Diagrams, and other topics are discussed.

Philosophy 202
Introduction to Social and Political Philosophy **3 Cr.**
3 Lec.

Prerequisite: Three hours of Philosophy or consent of instructor. An examination of the relationships of philosophical ideas to the community with emphasis on concepts of natural rights, justice, education, freedom and responsibility.

Philosophy 203
Ethics **3 Cr.**
3 Lec.

Prerequisite: Three hours of philosophy or consent of instructor. A survey of the classical and modern theories of the moral nature of man, posing alternative views of his responsibilities to self and society. The course is designed to verify the ethical issues and their metaphysical and epistemological bases so as to assist the student toward sound application of ethical principles in his own life.

Photography 110
Introduction to Photography and Photo-Journalism **3 Cr.**
2 Lec., 4 Lab.

Introduction to photography and photojournalism. The general mechanics of camera lenses and shutters, general characteristics of photographic films, papers, and chemicals. Proper photographic darkroom procedures including enlarging, processing, contact printing, and exposing of photographic films and papers. Study of artificial lighting. Laboratory fee required.

Photography 111
Advanced Photography and Photo-Journalism **3 Cr.**
3 Lec., 4 Lab.

Advanced Photography and Photojournalism. Utilization of everything taught in 101, with emphasis on refining techniques. Special emphasis on photographic communication.

Physical Education 100
Lifetime Sports Activities **1 Cr.**
3 Lab.

Students are provided an opportunity for participation and instruction in various lifetime sports. Selections may be made from archery, badminton, bowling, golf, handball, racquetball, softball, swimming, tennis, and other sports. Activities may be offered singularly or in combinations. Instruction shall be presented at the beginner and advanced-beginner levels. The course is designed for male and female students and may be repeated for credit providing students select different activities. Laboratory fee required.

Physical Education 101
Fundamentals of Health **3 Cr.**
3 Lec.

A study of personal and community health. Emphasis placed on causative factors of mental and physical health and the means of disease transmission and prevention. For majors, minors, and students with specific interest.

Physical Education 104
Touch Football/Soccer **1 Cr.**
2 Lab.

A course designed for those students desiring instruction and skill development in touch football and soccer. Male students only. Uniform required. Laboratory fee required.

Physical Education 110
Community Recreation 3 Cr.
3 Lec.

Principles, organization, and the function of recreation in American society. Designed for students planning a major or minor in health, physical education or recreation.

Physical Education 112
Softball and Soccer 1 Cr.
2 Lab.

Designed to provide the student an opportunity for instruction and participation in softball and soccer. Uniform required. Laboratory fee required.

Physical Education 113
Handball and Racketball 1 Cr.
2 Lab.

Designed to provide the student an opportunity for basic skills development in handball and racketball. Uniform required. Laboratory fee required.

Physical Education 115
Physical Performance Lab 1 Cr.
3 Lab.

This course is designed to diagnose and measure the student's physical condition and prescribe a program of exercise to carry with him through life. Much of the course work will be carried on in the Physical Performance Laboratory. Coeducational. Uniform required. Laboratory fee required.

Physical Education 118
Beginning Golf 1 Cr.
2 Lab.

A coeducational class in beginning golf. Equipment furnished. No uniform required. Laboratory fee required.

Physical Education 120
Beginning Bowling 1 Cr.
2 Lab.

A coeducational class in beginning bowling. Equipment furnished. No uniform required. Laboratory fee required.

Physical Education 122
Gymnastics and Tumbling 1 Cr.
2 Lab.

Skills in tumbling, horizontal bar, parallel bars, rings and trampoline. Uniform required. Laboratory fee required.

Physical Education 123
Beginning Swimming 1 Cr.
2 Lab.

A co-educational course designed to teach a non-swimmer to survive in the water. Uniform required. Laboratory fee required.

Physical Education 124
Social Dance 1 Cr.
2 Lab.

Students who have limited experience in dance will find this course beneficial. Ballroom and Social Dance includes fundamental steps and rhythms of the foxtrot, waltz, tango, and recent dance steps. "Country" dancing includes reel, square dance, and other related dances. Laboratory fee required.

Physical Education 125
Figure Training and Conditioning Exercise 1 Cr.
3 Lab.

A course for women designed to develop an understanding of controlling body weight and muscular development through vigorous rhythmical activities. Uniform required. Laboratory fee required.

Physical Education 127
Basketball and Volleyball **1 Cr.**
2 Lab.

Techniques, rules and strategy of the game will be taught and the emphasis will be on playing the game. Uniform required. Laboratory fee required.

Physical Education 129
Modern Dance **1 Cr.**
2 Lab.

A coeducational, beginning class in modern dance. Uniform required. Laboratory fee required.

Physical Education 131
Weight Training and Conditioning for Men **1 Cr.**
3 Lab.

A course designed for those students who desire instruction and participation in weight training and conditioning techniques. Uniform required. Laboratory fee required.

Physical Education 144
Introduction to Physical Education **3 Cr.**
3 Lec.

Designed for professional orientation in physical education, health and recreation. Brief history, philosophy and modern trends of physical education, teacher qualification, vocational opportunities, expected competencies, and skill testing comprise the contents of the course. For students majoring in physical education.

Physical Education 147
Sports Officiating I **3 Cr.**
2 Lec., 2 Officiating

This course is especially designed for those students who would like to choose sports officiating for an avocation and/or to increase knowledge in and appreciation of sports. Sports covered in this course will be football and basketball. As part of the course requirement students will be expected to officiate Intramural games.

Physical Education 148
Sports Officiating II **3 Cr.**
2 Lec., 2 Officiating

This course is especially designed for those students who would like to choose sports officiating for an avocation and/or to increase knowledge in and appreciation of sports. Sports covered in this course will be softball, track and field, and baseball.

Physical Education 200
Lifetime Sports Activities II **1 Cr.**
3 Lab.

A continuation of Physical Education 100. Students are provided an opportunity for participation and instruction in selected activities. Activities shall be presented at the intermediate and intermediate/advanced levels. This course number may be repeated two times for credit. For male and female students. Laboratory fee required.

Physical Education 210
Sports Appreciation for the Spectator **3 Cr.**
3 Lec.

A course specifically designed as an elective course for all students who desire a broader knowledge of major and minor sports. Rules, terminology, and philosophies of many sports are studied. Special emphasis shall be directed toward football and basketball.

Physical Education 218
Intermediate Golf **1 Cr.**
2 Lab.

Prerequisite: Permission of instructor. A course designed to develop skills and techniques beyond the "beginner" stage. Laboratory fee required.

Physical Education 219
Intermediate Tennis — **1 Cr.** **2 Lab.**

Prerequisite: Permission of instructor. A course designed to develop skills and techniques beyond the "beginner" stage. Uniform required. Laboratory fee required.

Physical Education 222
Intermediate Gymnastics — **1 Cr.** **2 Lab.**

Prerequisite: PEH 122. A course designed to develop skills and techniques beyond the "beginner" stage. Uniform required. Laboratory fee required.

Physical Education 223
Intermediate Swimming — **1 Cr.** **2 Lab.**

Prerequisite: Deep water swimming. A co-educational course designed to qualify students for Red Cross Life Saving card. Stroke analysis and diving will be included. Uniform required. Laboratory fee required.

Physical Education 224
Skin & Scuba Diving — **1 Cr.** **2 Lab.**

Prerequisite: Deep water swimmer. Instruction and practice in use of equipment, techniques, and fundamentals of skin and scuba diving. Co-educational. Arrangements will be made regarding equipment. Laboratory fee required.

Physical Education 233
Water Safety Instructor — **1 Cr.** **2 Lab.**

Prerequisite: Current senior life saving card. Principles and techniques for instructors in water safety and life saving classes. Satisfactory completion of course qualifies the student to test for certification by the Red Cross as water safety instructor. Uniform required. Laboratory fee required.

Physical Education 236
The Coaching of Football and Basketball — **3 Cr.** **2 Lec., 2 Lab.**

An elective course designed for all students who desire a broader knowledge of the skills and techniques involved in football and basketball coaching; history, theories, philosophies, rules, terminology, and the finer points of the sports are studied. Emphasis directed toward coaching techniques.

Physical Education 257
Standard and Advanced First Aid — **3 Cr.** **3 Lec.**

Theory and practice in the standard and advanced courses of the American National Red Cross in First Aid Safety.

Physical Science 119
Physical Science — **4 Cr.** **3 Lec., 2 Lab.**

The course encompasses the interaction of the earth sciences and man's physical world, geology, astronomy, meteorology and space science are emphasized through the application of selected principles and concepts of the applied sciences. The course is directed toward the non-science major. Laboratory fee required.

Physics 111
Introductory General Physics — **4 Cr.** **3 Lec., 3 Lab.**

Prerequisite: Two years high school algebra, including trigonometry or equivalent. The first semester of a two-semester course designed for pre-dental, pre-nursing, pre-pharmacy, and pre-architecture majors and other students who require a two-semester technical course in physics. The first half is a study of mechanics and heat. The laboratory includes a one-hour problem session. Laboratory fee required.

Physics 112
Introductory General Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: PHY 111. A continuation of Physics 111 which includes the study of electricity, magnetism, light, and sound. Laboratory includes one hour problem session. Laboratory fee required.

Physics 115
Physics for the Liberal Arts **4 Cr.**
3 Lec., 3 Lab.

An introduction to the various areas of physics as they relate to the world in which we live, accomplished through the study of selected topics including mechanics, thermodynamics, acoustics, electrodynamics, optics, and atomic physics. This course is intended primarily for the non-science major. Laboratory includes a one hour problem session. Laboratory fee required.

Physics 116
Physics for the Liberal Arts **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: PHY 115. A continuation of Physics 115. Laboratory includes a one hour problem session. Laboratory fee required.

Physics 131
Applied Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: MTH 195 or concurrent enrollment in MTH 195. The first half of a one year course designed to explain the basic concepts of the property of matter, mechanics, heat, sound, light, electricity, magnetism, and atomic theory with emphasis on applications and problem solving. Designed primarily for students enrolled in a one hour problem session. Laboratory fee required.

Physics 132
Applied Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: PHY 131. A continuation of Physics 131. Laboratory includes a one hour problem session. Laboratory fee required.

Physics 201
General Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: Credit or current registration in MTH 126. Principles and applications of mechanics, wave motion, and sound emphasizing fundamental concepts, problem solving, notation, and units. Designed primarily for physics, chemistry, mathematics, pre-med and engineering majors. Laboratory includes a one hour problem session. Laboratory fee required.

Physics 202
General Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: PHY 201 and credit or current registration in MTH 227. Principles and applications of heat, electricity, magnetism and optics emphasizing fundamentals, concepts, problem solving, notation and units. Laboratory includes a one hour problem session. Laboratory fee required.

Physics 203
Introduction to Modern Physics **4 Cr.**
3 Lec., 3 Lab.

Prerequisite: PHY 202. Principles of relativity, atomic and nuclear physics with emphasis on fundamental concepts, problem solving, notation, and units. Laboratory includes a one hour problem session. Laboratory fee required.

Pilot Technology 120
Ground School Private **3 Cr.**
Lec. 3 Hrs./week
Total 48 Contact Hrs.

Basic study of Federal Aviation Regulations, flight dynamics, meteorology, navigation, use of radio and general service of aircraft. Course is designed to fulfill the ground school requirements of the FAA Private Pilot Certificate.

Pilot Technology 125
Flight Basic **2 Cr.**
Lab. 9 Hrs./Total
Flt. 25 Hrs./Total
Total 34 Contact Hrs.

This course provides 25 hours of flight instruction (15 hours dual, 10 hours solo flight), pre-flight instruction and briefing, and instruction in a synthetic flight trainer. Medical requirements: current second-class medical certificate. Flight and laboratory fee required.

Pilot Technology 126
Aero Engines and Systems **2 Cr.**
Lec. 2 Hrs./week
Total 32 Contact Hrs.

Prerequisite: Credit or concurrent enrollment in AA 131, ELE 235, or equivalent. Basic power plant types and principles of operation such as piston reciprocating, rotary, jet and rocket; configurations such as in-line, radial, vee and horizontally opposed, turbo-prop, turbo-jet, fan-jet, and ram-jet. Systems include fuel, ignition, electrical, environmental, lubrication, hydraulics, pneumatics, fire detection and extinguishing, cooling, tachometer, monitoring, manual control, and power boosted systems.

Pilot Technology 132
Flight Private Pilot **1 Cr.**
Lab. 4 Hrs./Total
Flt. 20 Hrs./Total
Total 24 Contact Hrs.

This course provides a total of 20 hours of flight instruction (10 hours dual and 10 hours solo flight), pre-flight instruction and briefing, and instruction in a synthetic flight trainer. Students will receive credit for the course upon completion of the flight prerequisite for the private pilot flight examination. Flight and laboratory fee required.

Pilot Technology 231
Flight Commercial I **2 Cr.**
Lab. 8 Hrs./Total
Flt. 30 Hrs./Total
Total 38 Contact Hrs.

Prerequisite: Private Pilot Certificate. This course provides 30 hours of flight instruction (10 hours dual and 20 hours solo flight) and pre-flight instruction and briefing to apply toward the Commercial Pilot Certificate. Medical requirements: Current second-class medical certificate. Flight and laboratory fee required.

Pilot Technology 232
Ground School Commercial **3 Cr.**
Lec. 3 Hrs./week
Total 48 Contact Hrs.

Prerequisite: Private Pilot Certificate. In-depth analysis of all topics covered in the Commercial Pilot written examination. Emphasis is placed on problem development and solution practices to enhance appropriate responses in practical situations. Advanced exercises in the areas of aircraft operation, meteorology, navigation, communications, theory and hazards of attitude instrument flight, flight physiology, emergency procedures, FAR's and AIM, Flight Planning. Satisfactory completion of this course should qualify the student to pass the commerical pilot written examination.

Pilot Technology 233
Flight Commercial II **3 Cr.**
Lab. 8 Hrs./Total
Flt. 46 Hrs./Total
Total 54 Contact Hrs.

Prerequisite: Completion of PLT 231 – Flight Commercial I and concurrent enrollment in PLT 232 – ground school commercial. This course provides 46 hours of flight instruction (10 hours dual instrument instruction, 6 hours dual instruction, and 30 hours of solo flight), and pre-flight instruction and briefing to apply toward the Commercial Pilot Certificate. Flight instruction leading to a commercial license conforms to current FAA regulations by including a total of five (5) hours of night flight and ten (10) hours of instrument dual flight. Flight and laboratory fee required.

Pilot Technology 234
Flight Commercial III **3 Cr.**
Lab. 4 Hrs./Total
Flt. 46 Hrs./Total
Total 50 Contact Hrs.

Prerequisite: Completion of PLT 232 – Ground School Commercial and PLT 233 – Flight Commercial II. This course provides 46 hours flight instruction (6 hours dual flight, 30 hours solo flight, and 10 hours dual and practice flight in a more sophisticated aircraft) and pre-flight instruction and briefing all of which apply to fulfill flight-law requirements for the Commercial Pilot Certificate. Students will receive course credit upon satisfactory completion of the flight prerequisite to the Commercial Pilot flight examination. Flight and laboratory fee required.

Pilot Technology 236
Aero Physics **3 Cr.**
Lec. 3 Hrs./week
Total 48 Contact Hrs.

Prerequisite: Credit or concurrent enrollment in MTH 196. The aeronautical applications of physical laws. Areas considered in the course include gravitational laws, forces and stresses, Bernoulli's principle, gyroscopic principles, velocity-sonic relationships, dynamics of airfoils, high efficiency lift devices, energy conversion to reactive forces related to aerobatics, and precision flight.

Pilot Technology 237
Meteorology **3 Cr.**
Lec. 3 Hrs./week
Total 48 Contact Hrs.

A study of the basic concepts of meteorological phenomena, analysis and use of weather data, and the use and observation of measuring devices. Topics covered in 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.

Pilot Technology 239
Ground School Instrument **3 Cr.**
Lec. 3 Hrs./week
Total 48 Contact Hrs.

Prerequisite: Private or Commercial Pilot Certificate. Includes 36 hours covering theory and principles of aircraft attitude control, flight procedures and maneuvering by reference solely to cockpit instruments. Prepares the student for the FAA written examination for the Instrument Rating. Satisfactory completion of this course should qualify the student to pass the instrument rating written examination.

Pilot Technology 241
Flight Instrument **2 Cr.**
Lab. 26 Hrs./Total
Flt. 20 Hrs./Total
Total 46 Contact Hrs.

Prerequisite: Private or Commercial Pilot Certificate. This course provides 40 hours of flight instruction (20 hours of instrument flight and 20 hours instruction in an instrument, synthetic trainer) and pre-flight instruction and briefing. Instruction directed in the required flight disciplines to qualify students for the FAA Instrument Rating. Flight and laboratory fee required.

Pilot Technology 242
Ground School
Flight Instructor **2 Cr.**
Lec. 2 Hrs./week
Total 32 Contact Hrs.

Prerequisite: Commercial Pilot Certificate or Private Pilot Certificate with 200 hours logged flight time. Includes 40 hours covering principles of flight and ground instruction and instructional techniques on aircraft performance, analysis of maneuvers, and Federal Aviation Regulations. Satisfactory completion of this course should qualify the student to pass the flight instructor written examination.

Pilot Technology 243
Flight Instructor **2 Cr.**
Lab. 10 Hrs./Total
Flt. 30 Hrs./Total
Total 40 Contact Hrs.

Prerequisite: Commercial Pilot Certificate or Private Pilot Certificate with 200 hours logged flight time. 30 hours of flight training in the science of flight instruction including evaluation of student performance and maneuver analysis. Covers the required instructional flight disciplines to qualify students for the FAA Flight Instructor Rating. Flight and laboratory fee required.

Pilot Technology 244
Flight Advanced I **1 Cr.**
Flt. 10 Hrs./Total
Total 10 Contact Hrs.

Prerequisite: A Private Pilot Certificate or a Commercial Pilot Certificate. This course of flight training leads to the Federal Aviation Agency Multi-Engine Pilot Rating. All flying is given in modern twin-engine aircraft and is designed to give the advanced pilot a greater depth of aircraft experience. Includes 10 hours of flight instruction and pre-flight instruction and briefing. Flight fee required.

Psychology 105
Introduction to Psychology **3 Cr.**
3 Lec.

A study of basic problems and principles of human experience and behavior; heredity and environment, the nervous system, motivation, learning, emotions, thinking, and intelligence. This course is offered on campus and via television.

Psychology 131
Human Relations **3 Cr.**
3 Lec.

A study involving the direct application of psychological principles to human relations problems in business and industry. Consideration is given to group dynamics and adjustment factors related to employment and advancement. The presentation will be tailored to fit the needs of the students enrolled in each section.

Psychology 201
Developmental Psychology — **3 Cr. 3 Lec.**

Prerequisite: Psy 105. A study of human growth, development, and behavior, emphasizing the psychological changes which occur during the life pattern. The processes of life from prenatal beginnings to adulthood are treated in an integrated manner. Due attention is given to aging and its place in the developmental sequence.

Psychology 202
Applied Psychology — **3 Cr. 3 Lec.**

Prerequisite: Psy 105. A course designed for the application of psychological facts and principles to problems and activities of life. Special emphasis will be placed on observing, recording, and modifying human behavior. Some off-campus work will be required.

Psychology 205
Psychology of Personality — **3 Cr. 3 Lec.**

Prerequisite: Psychology 105. A consideration of the important factors involved in successful human adjustment including child-parent relationships, adolescence, anxiety states, mechanisms of defense and psychoanalytic concepts. The course includes a survey of methods of personality measurement.

Psychology 209
General Psychology — **3 Cr. 3 Lec.**

Prerequisite: Psy 105. An in-depth survey of behavior, including learning, motivation, perception, and emotion. An introduction to behavioral research, data collecting, and analysis will be included. Recommended for psychology majors.

Reading 101
Effective College Reading — **3 Cr. 3 Lec.**

Reading 101 emphasizes comprehension techniques in reading fiction and nonfiction. Improved critical reading skills including analysis, critique and evaluation of written material are explored. Reading comprehension and flexibility of reading rate are stressed. In addition, advanced learning techniques in listening, note-taking, underlining, concentration, and reading in specialized academic areas are developed.

Religion 101
Religion in American Culture — **3 Cr. 3 Lec.**

A systematic examination of religion in American culture. Emphasis will be upon the interaction of religion with politics, economics, the military, education, the arts and other cultural phenomena.

Religion 102
Contemporary Religious Problems — **3 Cr. 3 Lec.**

An analysis of the background and present expression of basic problems in religion; e.g., the problem of belief, the nature of religious literature, the existence of God, evil, human destiny and the relation of religion to society and the arts. Both Western and Eastern traditions will be considered.

Religion 201
Major World Religions **3 Cr.**
3 Lec.

Prerequisite: Sophomore standing or consent of instructor recommended. A survey of major world faiths. The course will concentrate on the basic texts of Eastern and Western religions and on the creative personalities of their founders. There will be some consideration of the problems of "objective" study of religions, of primitive religions, and of alternatives to major world religions such as astrology and atheism.

Salesmanship
(See Business 230)

Secretarial Training
(See Business 162)

Shorthand
(See Business 163, 164, 263, 264)

Social Science 131
American Civilization **3 Cr.**
3 Lec.

A course designed to provide the student with some historical perspective for understanding the economic, political, and social institutions of modern society. In this context, emphasis will be placed upon U. S. and Texas history and constitutional development. It is advised that these courses be taken in order: 131, 132.

Social Science 132
American Civilization **3 Cr.**
3 Lec.

A continuation of Social Science 131.

Sociology 101
Introduction to Sociology **3 Cr.**
3 Lec.

An inquiry into the nature of society and the foundations of group life, including institutions, with a broad presentation of the basis of social change, processes and problems.

Sociology 102
Social Problems **3 Cr.**
3 Lec.

Prerequisite: SOC 101. A study of the background, emergence and scope of current group relationships in our society, emphasizing topics as they apply to social adjustment in the family and the total community environment.

Sociology 203
Marriage and Family **3 Cr.**
3 Lec.

Prerequisite: SOC 101 recommended. An analysis of courtship patterns, marriage and family forms, relationships and functions, and sociocultural differences in family behavior.

Sociology 204
American Minorities **3 Cr.**
3 Lec.

Prerequisite: SOC 101 and/or six hours of U. S. History recommended. The principal minority groups in American society; their sociological significance and historic contributions. An emphasis will be placed on problems of intergroup relations, social movements and related social changes occurring on the contemporary American scene. The student may register for either History 204 or Sociology 204.

Spanish 101
Beginning Spanish **4 Cr.**
3 Lec., 2 Lab.

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral expression. Laboratory fee required.

Spanish 102
Beginning Spanish **4 Cr.**
3 Lec., 2 Lab.

Prerequisite: SPA 101 or equivalent. Continuation of Spanish 101 with emphasis on idiomatic language and complicated syntax. Laboratory fee required.

Spanish 201
Intermediate Spanish **3 Cr.**
3 Lec.

Prerequisite: SPA 102 or equivalent or consent of the instructor. Reading, composition, grammar review and intense oral practice.

Spanish 202
Intermediate Spanish **3 Cr.**
3 Lec.

Prerequisite: SPA 201 or equivalent. Continuation of Spanish 201 with reading selections drawn more directly from contemporary literary sources. Composition.

Spanish 203
Introduction to Spanish Literature **3 Cr.**
3 Lec.

Prerequisite: SPA 202 or equivalent or consent of the instructor. Readings in Spanish literature, history, culture, art and civilization.

Spanish 204
Introduction to Spanish Literature **3 Cr.**
3 Lec.

Prerequisite: SPA 202 or equivalent or consent of the instructor. Readings in Spanish literature, history, culture, art and civilization.

Speech 105
Fundamentals of Public Speaking **3 Cr.**
3 Lec.

An introductory course in public speaking. Principles of reasoning. Emphasis upon the delivery of carefully prepared speeches. Special attention to audience analysis, collecton of materials, and outlining.

Speech 109
Voice and Articulation **3 Cr.**
3 Lec.

A study of the mechanics of speech applied to improvement of the individual's voice and pronunciation.

Speech 110
Reader's Theatre Workshop **1 Cr.**
2 Lab.

A laboratory course for the preparation and presentation of scripts, readings, and book reviews, collecting and arranging all types of literature for group interpretation and performance. May be repeated once for credit.

Speech 201
Forensic Workshop **1 Cr.**
2 Lab.

A laboratory course for the preparation of speeches, readings, and debate propositions which will be presented in competition and before select audiences. May be repeated for one additional unit of credit.

Speech 205
Discussion and Debate **3 Cr.**
3 Lec.

A study of theories and application of techniques of public discussion and argumentation. Special emphasis on development of ability to evaluate, analyze, and think logically, through application to current problems.

Speech 206
Oral Interpretation **3 Cr.**
3 Lec.

A study of fundamental techniques of analyzing various types of literature, and practice in preparing and presenting selections orally. Emphasis on individual improvement.

Theatre 100
Rehearsal and Performance **1 Cr.**
4 Lab.

Prerequisite: Acceptance as a member of the cast or crew of a major production. Participation in the class includes the rehearsal and performance of the current theatrical presentation of the division. CREDIT LIMITED TO ONE HOUR PER SEMESTER.

Theatre 101
Introduction to the Theatre **3 Cr.**
3 Lec.

A general survey designed to acquaint the student with the various aspects of theatre, plays and playwrights, directing and acting, theatres, artists, and technicians.

Theatre 102
Contemporary Theatre **3 Cr.**
3 Lec.

A study of the modern theatre and cinema as art forms, with attention to the historical background and traditions of each. Emphasis is placed on a better understanding of the social, cultural, and aesthetic significance of these media in today's life. Includes the reading of a number of modern plays and the viewing of specially selected films.

Theatre 103
Stagecraft I **3 Cr.**
2 Lec., 3 Lab.

A study of the technical aspects of play production including set design and construction, stage lighting, make-up, costuming, and related areas.

Theatre 104
Stagecraft II **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Theatre 103 or consent of instructor. A continuation of Theatre 103 with emphasis on individual projects in set and lighting design and construction, including further exploration of the technical aspects of play production.

Theatre 106
Acting I **3 Cr.**
2 Lec., 3 Lab.

Individual and group activity with theory and exercises in bodily control, voice, pantomime, interpretation, characterization, and stage movement. Analysis and study of specific roles for stage presentation.

Theatre 107
Acting II **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Theatre 106 or consent of instructor. Continuation of Theatre 106 with emphasis on problems of complex characterization, ensemble acting, stylized acting, and acting in period plays.

Theatre 108
Movement For The Stage **3 Cr.**
2 Lec., 3 Lab.

A study of movement as both a pure form as well as its relation and integration with the Theatre Arts. The course will include movement as a technique to control balance, rhythm, strength, and flexibility. Movement will be explored as it is used in all the theatrical forms and in development of characterization. May be repeated for credit.

Theatre 109
Voice and Articulation **3 Cr.**
3 Lec.

Same as Speech 109. The student may not receive credit for both Theatre 109 and Speech 109.

Theatre 110
History of Theatre I **3 Cr.**
3 Lec.

Survey of theatre from its beginning through the sixteenth century. Study of the theatre in each period as a part of the total culture of the period.

Theatre 111
History of Theatre II **3 Cr.**
3 Lec.

Development of the theatre from the seventeenth century through the twentieth century.

Theatre 112
Beginning Dance Technique in Theatre **3 Cr.**
2 Lec., 3 Lab.

Course designed to promote body balance, improve manipulation of trunk and limbs, and facilitate the rhythmic flow of physical energy. Exploration of basic movements of the dance with emphasis on swing movements, circular motion, fall and recovery, contraction and release, and contrast of literal and abstract movements.

Theatre 115
Mime **2 Cr.**
1 Lec., 2 Lab.

Prerequisite: Stage Movement, Theatre 106. Exploration of the expressive significance and techniques of mime.

Theatre 205
Scene Study (Theatre) **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Theatre 106, 107. Continuation of Acting II with emphasis on developing character through detailed study of the playscript. Students will deal with the stylistic problems presented by the staging of period plays. Concentrating primarily on Ibsen, Chekov, and the development of early realism.

Theatre 206
Intermediate Dance Technique in Theatre **3 Cr.**
2 Lec., 3 Lab.

Prerequisite: Theatre 105 or permission of instructor. A general survey to acquaint the student with the various aspects of dance and its roll in total theatre. Including the evolution of dance styles, exploration of jazz style emphasizing flow of movement, body placement, dynamic intensity, level, focus, and direction.

Typing
(See Business 173, 174, 273)

Welding 130
Pattern Layout — **3 Cr.**
Lec. 2 Hrs./week
Lab. 3 Hrs./week
Total 80 Contact Hrs.

This course is devoted to the preparation of patterns, pattern development, and the shop economics involved. Job applications, general layout work with structural material. Laboratory fee required.

Welding 140
Oxyacetylene Welding I — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

This is a basic manipulative skills training course designed to develop the student's ability to set up and use the equipment for flat position welding and cutting. On completion, the student should be able to meet general industrial requirements while using oxyacetylene equipment in the flat position. Laboratory fee required.

Welding 141
Oxyacetylene Welding II — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

This is a basic manipulative skills training course designed to enable a student to meet general industrial requirements while using oxyacetylene equipment for welding sheet, thin plate and small diameter pipe in all positions. Laboratory fee required.

Welding 142
Oxyacetylene Braze — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

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 required.

Welding 143
Shielded Metal-Arc Welding I — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

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 position. Laboratory fee required.

Welding 144
Shielded Metal-Arc Welding II — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

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 required.

Welding 145
Plate Welding I
2 Cr.
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 143 and WE 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 materials in all positions. Laboratory fee required.

Welding 146
Plasma — Arc Welding I
1 Cr.
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

Prerequisite: WE 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 required.

Welding 147
Micro-Wire Welding I
2 Cr.
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

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 required.

Welding 148
Semiautomatic Arc Welding I
1 Cr.
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

This is a basic manipulative skills training course designed to enable the student to meet general industrial requirements 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 required.

Welding 149
Gas Tungsten Arc Welding (TIG) I
2 Cr.
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 gage material. Laboratory fee required.

Welding 150
Basic Welding Metallurgy
3 Cr.
Lec. 3 Hrs./week
Total 48 Contact Hrs.

This is a theory type course designed to assist those students in welding or who are employed in welding and related industries to refresh and extend their knowledge of the behavior of the various fabricating metals during welding. The effects of the joining processes and procedures on the fabrication and service performance of weldments are also considered. Laboratory fee required.

Welding 240
Pipe Welding I — (Shielded Metal-Arc) **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 required.

Welding 241
Plate Welding II **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 required.

Welding 242
Gas Tungsten — Arc Welding (TIG) II **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 required.

Welding 243
Semiautomatic Arc Welding II **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 required.

Welding 244
Micro-Wire Welding II **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 required.

Welding 245
Plasma-Arc Welding II **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

Prerequisite: WE 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 required.

Welding 246
Pipe Welding II — **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 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 #104 from the American Petroleum Institute. Laboratory fee required.

Welding 247
Manual Submerged Arc Welding — **1 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 32 Contact Hrs.

Prerequisite: WE 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 required.

Welding 248
Specialized Welding Application I — **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

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 required.

Welding 249
Specific Code Competency Preparation — **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

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 advanced standing. Laboratory fee required.

Welding 250
Specialized Welding Application II — **2 Cr.**
Lec. 1 Hr./week
Lab. 7 Hrs./week
Total 64 Contact Hrs.

Prerequisite: WE 248. A continuation of Welding 2. Specialized Welding Application I. Laboratory fee required.

CAREER PROGRAMS

Career Programs offered in the Dallas County Community College District

Mountain View College

Accounting Technician
Aviation Administration
Avionics Technology
Drafting and Design Technology
Electronics Technology
Horology (Watch Repair)
Machine Shop
Mid-Management
Office Skills & Systems
Pilot Technology
Secretarial Careers
Welding Technology

Eastfield College

Accounting Technician
Air Conditioning and
Refrigeration Technology
Auto Body
Automotive Technology
Child Development
Diesel Mechanics
Digital Electronics Technology
Drafting and Design Technology
Executive Secretary
Graphic Arts
Human Services
Mid-Management
Office Skills and Systems
Recreational Leadership
Secretarial Careers
Training Paraprofessionals
for the Deaf
Transportation Technology

El Centro College

Accounting Technician
Apparel Design
Associate Degree Nursing
Data Processing Programmer
Dental Assisting Technology
Drafting and Design Technology
Fire Protection Technology
Food Service —
Dietetic Technician
Food Service Operations
Human Services
Interior Design
Medical Assisting Technology
Medical Laboratory Technician
Program
Medical Transcriptionist
Mid-Management
Office Skills and Systems
Pattern Designs
Police Science
Radiologic Technology
Respiratory Therapy Technology
Secretarial Careers
Teachers Aide
Television and Radio Servicing
Vocational Nursing

Richland College

Accounting Technician
Accounting Associate
Construction Management
and Technology
Electromechanical Technology
Fluid Power Technology
Human Services
Mid-Management
Ornamental Horticulture
Quality Control Technology
Secretarial Careers
Administrative
Educational
Executive
General
Office Skills and Systems
Teachers Aide

CAREER PROGRAMS OF TARRANT COUNTY AVAILABLE TO DALLAS COUNTY RESIDENTS

Dallas County residents may enroll in the below-listed programs on the appropriate Tarrant County Junior College Campus at the Tarrant County resident's tuition rate. This reciprocal arrangement does not apply to programs of instruction which are filled to capacity with Tarrant County students.

Programs	Campus
Aviation Technology (aircraft mechanic)	South Campus
Appliance Service	South Campus
Broadcast Communications Technology	South Campus
Civil Technology	Northeast Campus
Dental Hygiene	Northeast Campus
Fashion Merchandising	Northeast Campus
Food Marketing	Northeast Campus
General Clerical (one year)	Both campuses
General Office Occupations	Both campuses
Instructional Media	Northeast Campus
Legal Secretarial	Both campuses
Medical Secretarial	South Campus
Technical Illustration	Northeast Campus

The reciprocal arrangement with Tarrant County also applies to Tarrant County residents enrolled for programs offered on the Mountain View College Campus. Tarrant County residents may enroll in the below-listed programs at Mountain View at the Dallas County resident's tuition rate:

Aviation Administration
Avionics Technology
Horology
Machine Shop
Pilot Technology
Welding Technology

ACCOUNTING TECHNICIAN
(One-Year Certificate Program)

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.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Bus 105 — Introduction to Business	3	0	3
Bus 131 — Bookkeeping	3	0	3
Bus 161 — Office Machines	1	2	2
Com 131 — Applied Composition and Speech	3	0	3
Mth 130 — Business Mathematics	3	0	3
	13	2	14
Spring Semester			
Bus 132 — Bookkeeping	3	0	3
Bus 173 — Beginning Typing OR			
Bus 174 — Intermediate Typing	1	2	2
CS 175 — Introduction to Computing Science	3	0	3
Com 132 — Applied Composition and Speech	3	0	3
***Elective**	3	0	3
	13	2	14

*Suggested electives: Bus 162, Bus 231, Bus 234, Psy. 131.

AVIATION ADMINISTRATION

options — AIR CARGO TRANSPORT
— AIRLINE MARKETING
— FIXED-BASE OPERATIONS/AIRPORT MANAGEMENT
(Associate Degree of Applied Arts and Sciences)

Aviation Administration concerns the various aspects of business administration as relates to the multifaceted aviation industry. General business, accounting, legal, socioeconomic, advertising, marketing, and public relations subjects are interspersed with the appropriate areas of aviation specialization.

Curriculum Pattern

FIRST YEAR
CORE CURRICULUM
(Common to all Aviation Administration Degree Programs)

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
AA 131 — Introduction to Aviation	3	0	3
Com 131 — Applied Composition and Speech	3	0	3
Bus 105 — Introduction to Business	3	0	3
Bus 201 — Principles of Accounting	3	0	3
Bus 234 — Business Law	3	0	3
	15	0	15
Spring Semester			
AA 133 — Air Transportation	3	0	3
AA 134 — Aviation Law	3	0	3
Com 132 — Applied Composition and Speech	3	0	3
Psy 131 — Human Relations	3	0	3
Bus 202 — Principles of Accounting	3	0	3
	15	0	15

AVIATION ADMINISTRATION
(continued)
AIR CARGO TRANSPORT
(Second Year Option)

This program prepares the student for entry into the career field of air cargo management. Typical positions span the range from management trainee, support staff member, assistant to administrative supervisor, or station manager. The curriculum provides studies in the logistics of air cargo, special regulations and laws (local, national, and international) relating to air cargo operations, and prepares the graduate to perform the responsible operations essential to air shipment and transshipment of products and material.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
AA 232 — Transportation, Traffic and Air Cargo	3	0	3
Eco 201 — Principles of Economics	3	0	3
SS 131 — American Civilization	3	0	3
AA 235 — Airline Management	3	0	3
Elective	3	0	3
	15	0	15
Spring Semester			
Bus 136 — Principles of Management	3	0	3
AA 237 — Transportation Regulations and Revenue	3	0	3
SS 132 — American Civilization	3	0	3
CS 175 — Introduction to Computing Science	3	0	3
Eco 202 — Principles of Economics	3	0	3
	15	0	15

AVIATION ADMINISTRATION
(continued)
AIRLINE MARKETING
(Second Year Option)

Airline Marketing prepares the student for a position as an airline or cargo management trainee in the areas of customer service, sales, or promotional efforts; to perform in advertising, public relations, economics, or marketing; and evaluation of marketing effectiveness as it relates to passenger and air cargo movement.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
AA 232 — Transportation, Traffic and Air Cargo	3	0	3
Eco 201 — Principles of Economics	3	0	3
SS 131 — American Civilization	3	0	3
Bus 233 — Advertising and Sales Promotion	3	0	3
AA 235 — Airline Management	3	0	3
	15	0	15
Spring Semester			
AA 236 — Aviation Marketing	3	0	3
Bus 230 — Salesmanship	3	0	3
SS 132 — American Civilization	3	0	3
Eco 202 — Principles of Economics	3	0	3
Elective	3	0	3
	15	0	15

AVIATION ADMINISTRATION
(continued)
FIXED-BASE OPERATION/AIRPORT MANAGEMENT
(Second Year Option)

This program prepares the student for entry into the career field of airport management. Typical positions include fixed-base operator, manager of a small airport, or staff member to operation superintendents, airport directors, or aviation authority boards. Studies provide a basic business exposure that is aviation-oriented and covers planning, organizing and administering the various functions of airport operations, local and federal regulations, facility and financial requirements.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs	Credit Hrs
Fall Semester			
AA 232 — Transportation, Traffic and Air Cargo	3	0	3
Bus 136 — Principles of Management	3	0	3
Eco 201 — Principles of Economics	3	0	3
SS 131 — American Civilization	3	0	3
AA 235 — Airline Management	3	0	3
	15	0	15
Spring Semester			
AA 239 — Airport Management	3	0	3
Eco 201 — Principles of Economics	3	0	3
SS 132 — American Civilization	3	0	3
CS 175 — Introduction to Computing Science	3	0	3
Elective	3	0	3
	15	0	15

AVIONICS TECHNOLOGY
(Associate Degree of Applied Arts and Sciences)

This 2-year program will provide the student with a general electronics background and knowledge and practical skills related to avionics systems which will prepare him for entry-level employment in the avionics industry.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Com 131 — Applied Composition and Speech	3	0	3
Mth 195 — Technical Mathematics for Electronics	3	0	3
Phy 131 — Applied Physics	3	3	4
ET 135 — D.C.-A.C. Theory and Circuit Analysis	5	3	6
AV 130 — Introduction to Aircraft Electronics Systems	2	0	2
	16	6	18
Spring Semester			
Com 132 — Applied Composition and Speech	3	0	3
Mth 196 — Technical Mathematics for Electronics	3	0	3
Phy 132 — Applied Physics	3	3	4
ET 193 — Active Devices	3	3	4
AV 131 — Aircraft Communications Systems	3	3	4
	15	9	18
Fall Semester			
SS 131 — American Civilization	3	0	3
Dft 182 — Technical Drafting	1	3	2
ET 232 — Logic/Switch Circuits	3	3	4
AV 230 — Aircraft Navigation Systems	3	3	4
AV 231 — Aircraft Electrical and Instrumentation Systems	3	3	4
	13	12	17
Spring Semester			
SS 132 — American Civilization	3	0	3
Psy 131 — Human Relations	3	0	3
AV 232 — Aircraft Radar Systems	3	3	4
AV 233 — Aircraft Systems Installation, Wiring, and Modification	1	5	3
AV 234 — Aircraft Electronic Systems Checkout and Troubleshooting Procedures	2	5	4
	12	13	17

DRAFTING AND 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.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Dft 183 — Basic Drafting	2	6	4
Egr 186 — Manufacturing Process	1	2	2
Com 131 — Applied Composition and Speech	3	0	3
Mth 195 — Technical Mathematics	3	0	3
SS 131 — American Civilization	3	0	3
	12	8	15
Spring Semester			
Dft 184 — Intermediate Drafting	2	4	3
Com 132 — Applied Composition and Speech	3	0	3
Mth 196 — Technical Mathematics	3	0	3
SS 132 — American Civilization	3	0	3
Egr 106 — Descriptive Geometry	2	4	3
	13	8	15
Fall Semester			
Egr 188 — Statics	3	0	3
***Dft 231** — Electronic Drafting	2	4	3
Dft 232 — Technical Illustration	2	4	3
Phy 131 — Applied Physics	3	3	4
Dft 135 — Reproduction Processes	1	3	2
	11	14	15
Spring Semester			
***Dft 230** — Structural Drafting	2	4	3
Dft 233 — Machine Design	2	6	4
Egr 189 — Characteristics of Materials	3	0	3
Phy 132 — Applied Physics	3	3	4
Psy 131 — Human Relations	3	0	3
	13	13	17

*The following courses may be substituted if there is sufficient demand for them: Dft 136, Dft 185, Dft 234, Dft 235.

ELECTRONICS TECHNOLOGY
(Associate Degree of Applied Arts and Sciences)

This 2-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.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Com 131 — Applied Composition and Speech	3	0	3
Mth 195 — Technical Mathematics for Electronics	3	0	3
Phy 131 — Applied Physics	3	3	4
Dft 182 — Technical Drafting	1	3	2
ET 190 — D.C. Circuits and Electrical Measurements	3	3	4
	13	9	16
Spring Semester			
Com 132 — Applied Composition and Speech	3	0	3
Mth 196 — Technical Mathematics for Electronics	3	0	3
ET 191 — A.C. Circuits	3	3	4
ET 193 — Active Devices	3	3	4
ET 194 — Instrumentation	2	3	3
	14	9	17
Fall Semester			
SS 131 — American Civilization	3	0	3
Hum 101 — Introduction to Humanities	3	0	3
Egr 186 — Manufacturing Processes	1	2	2
ET 231 — Special Circuits	3	3	4
ET 232 — Logic/Switch Circuits	3	3	4
	13	8	16
Spring Semester			
SS 132 — American Civilization	3	0	3
Psy 131 — Human Relations	3	0	3
CS 175 — Introduction to Computing Science	3	0	3
ET 233 — Industrial and Microwave Electronics Technology	3	3	4
ET 234 — Electronic Circuits and Systems	0	6	3
	12	9	16

HOROLOGY
(One-Year Certificate Program)

This intensive program has the objective of developing the student's manual dexterity, judgment, 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 the skilled horologist may be found in retail jewelry stores, trade shops, or in one's own business.

Curriculum Pattern

	Per Week Lec. Hrs.	Per Week Lab. Hrs.	Total Contact Hours	Semester Credit Hours
*Hor 131 — Introduction to Horology: Antique Clock Theory and Repair	1	14	210	5
*Hor 132 — Introduction to Horology: Modern Clock Theory and Repair	1	14	210	5
Dft 182 — Technical Drafting	1	3	64	2
Com 131 — Applied Composition and Speech	3	0	48	3
*Hor 133 — Watch Cleaning and Assembly	1	15	256	6
*Hor 134 — Watch Part Replacement	1	15	256	6
*Hor 137 — Customer and Business Relations	2	0	32	2
*Hor 135 — Advanced Watchmaking I	3	32	210	5
*Hor 136 — Advanced Watchmaking II	3	32	210	5
TOTAL			1496	39

*Indicates courses which are open for enrollment on the first Monday of each month. In each case, such enrollment is subject to completion of specified prerequisites.

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 each month. 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.

Curriculum Pattern

	Per Week Lec. Hrs.	Per Week Lab. Hrs.	Total Contact Hours	Semester Credit Hours
First Year				
MS 133 — Basic Lathe	1	8	144	5
MS 134 — Basic Milling Machine	1	8	144	5
DM 091 — Basic Math	3	0	48	3
Bpr 177 — Blueprint Reading	1	3	64	2
Egr 131 — Manufacturing Processes	1	2	48	2
MS 135 — Intermediate Lathe	1	8	144	5
MS 136 — Intermediate Milling Machine	1	8	144	5
Mth 139 — Applied Mathematics	3	0	48	3
Com 131 — Applied Composition and Speech	3	0	48	3
Bpr 178 — Blueprint Reading	1	3	64	2
			896	35
Second Year				
MS 233 — Advanced Lathe	1	8	144	5
MS 234 — Advanced Milling Machine	1	8	144	5
Phy 131 — Applied Physics	3	3	96	4
SS 131 — American Civilization	3	0	48	3
MS 235 — Applied Lathe	1	8	144	5
MS 236 — Applied Milling Machine	1	8	144	5
Phy 132 — Applied Physics	3	3	96	4
Psy 131 — Human Relations	3	0	48	3
			864	34

MID-MANAGEMENT
(Associate Degree of Applied Arts and Sciences)

This program in business management is 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.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Bus 136 — Priniciples of Management	3	0	3
***Bus 150** — Management Training	0	20	4
***Bus 154** — Management Seminar—Role of Supervision	2	0	2
Com 131 — Applied Comp. & Speech OR **Eng 101** — Composition and Expository Reading	3	0	3
Hum 101 — Introduction to Humanities (or Art 104, Mus 104, THE 101)	3	0	3
	11	20	15
Spring Semester			
Bus 105 — Introduction to Business	3	0	3
Bus 151 — Management Training	0	20	4
Bus 155 — Management Seminar—Personnel Management	2	0	2
Comp 132 — Applied Comp. & Speech OR **Eng 102** — Composition & Literature	3	0	3
****Elective**	3	0	3
	11	20	15
Fall Semester			
Bus 201 — Priniciples of Accounting OR **Bus 131** — Bookkeeping	3	0	3
Bus 250 — Management Training	0	20	4
Bus 254 — Management Seminar—Organizational Development	2	0	2
SS 131 — American Civilization OR **Hst 101** — History of the United States	3	0	3
****Elective**	3	0	3
	11	20	15

Spring Semester			
Bus 251 — Management Training	0	20	4
Bus 255 — Management Seminar—Business Strategy, the Decision Process and Problem Solving	2	0	2
Eco 201 — Principles of Economics	3	0	3
Elective to be chosen from Social or Behavioral Sciences	3	0	3
****Elective**	3	0	3
	11	20	15

*Preliminary interview by Mid-Management Faculty required.
**Suggested Electives: Bus. 161, Bus. 231, Bus. 233, Bus. 234, CS. 175, Bio. 115, Bio. 116, Mth. 130, Phy. Sc. 115, Psy. 131, Spe. 105.

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.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Bus 105 — Intro to Business	3	0	3
Bus 131 — Bookkeeping OR **Bus 201** — Principles of Accounting	3	0	3
Bus 161 — Office Machines	1	2	2
Bus 162 — Secretarial Training	3	0	3
Bus 174 — Intermediate Typing	1	2	2
Com 131 — Applied Composition & Speech OR **Eng 101** — Composition and Expository Reading	3	0	3
	14	4	16

Spring Semester			
Bus 160 — Machine Transcription	3	0	3
Bus 231 — Business Correspondence	3	0	3
Bus 273 — Advanced Typing	1	2	2
Com 131 — Applied Composition & Speech OR			
Eng 102 — Composition and Expository Reading	3	0	3
Elective	3	0	3
	13	2	14

SECRETARIAL CAREERS
(One-Year Certificate Program)

The basic purpose of this program is to acquaint students with the opportunities and responsibilities of a secretarial career.

Curriculum Pattern

	Lec. Hrs.	Lab Hrs.	Credit Hrs.
Fall Semester			
Bus 105 — Introduction to Business	3	0	3
Bus 131 — Bookkeeping	3	0	3
Bus 161 — Office Machines	1	2	2
***Bus 163** — Beginning Shorthand	2	3	3
***Bus 173** — Beginning Typing	1	2	2
Com 131 — Applied Composition and Speech OR			
Eng 101 — Composition and Expository Reading	3	0	3
	13	7	16
Spring Semester			
Bus 160 — Machine Transcription	3	0	3
Bus 162 — Secretarial Training	3	0	3
Bus 164 — Intermediate Shorthand	2	3	3
Bus 174 — Intermediate Typing	1	2	2
Bus 231 — Business Correspondence	3	0	3
	12	5	14

*Students with previous training will be placed according to ability.
Suggested Electives: Bus 263, Bus 273, CS 175, Mth 130.
A student is required to have his last semester of typewriting and shorthand at Mountain View College to complete this program.

SECRETARIAL CAREERS
(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 a student may take courses which will provide general knowledge in areas such as law, selling, advertising, and accounting.

Curriculum Pattern

	Lec. Hrs.	Lab. Hrs.	Credit Hrs.
Fall Semester			
Bus 105 — Introduction to Business	3	0	3
Bus 131 — Bookkeeping	3	0	3
Bus 161 — Office Machines	1	2	2
Bus 163 — Beginning Shorthand	2	3	3
*Bus 174 — Intermediate Typing	1	2	2
Com 131 — Applied Composition and Speech OR **Eng 101** — Composition and Expository Reading	3	0	3
	13	7	16
Spring Semester			
Bus 160 — Machine Transcription	3	0	3
Bus 162 — Secretarial Training	3	0	3
Bus 164 — Intermediate Shorthand	2	3	3
Bus 231 — Business Correspondence	3	0	3
Bus 273 — Advanced Typing	1	2	2
	12	5	14
Fall Semester			
Bus 263 — Advanced Shorthand	2	3	3
CS 175 — Introduction to Computing Science	3	0	3
Com 132 — Applied Composition and Speech OR **Eng 102** — Composition and Literature	3	0	3
SS 131 — American Civilization OR **Hst 101** — History of the United States	3	0	3
**Elective	3	0	3
	14	3	15

Spring Semester			
Bus 264 — Shorthand Transcription	2	3	3
Hum 101 — Introduction to Humanities	3	0	3
Psy 131 — Human Relations	3	0	3
SS 132 — American Civilization OR			
Hst 102 — History of the United States	3	0	3
****Elective**	3	0	3
	14	3	15

*Students with previous training will be placed according to ability.
**Suggested Electives: Bus 230, Bus 233, Bus 234, Mth 130.
A student is required to have his last semester of typewriting and shorthand at Mountain View to complete this program.

PILOT TECHNOLOGY
(Associate Degree of Applied Arts and Sciences)

This program is designed to provide the student with flight training and ground school through the commercial license. Both general academic and associated technical courses are included in the comprehensive program to prepare the student for a career in aviation as a flight crew member. In addition to the commercial license, options are available for the Instrument Rating, Instructor Rating and Multi-Engine Rating.

All flight training and ground school instruction conforms to Vol. 10, part 61 and 141 of the Federal Aviation Regulations and, thus, are subject to change to conform to such regulations.

A regularly enrolled student holding FAA Pilot Certificate and rating may establish degree credit by special examination.

Registration for flight training and certain related courses is open on the first Monday of each month. Admission to the 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 ad fees for pre- and post-flight briefing are in addition to the regular tuition charges.

✓ = Courses involving Flight Training

Curriculum Pattern

	Per Week Lec. Hrs.	Per Week Lab. Hrs.	Total Flight Hrs.	Total Contact Hours	Semester Credit Hours
First Year					
Plt 120 — Ground School Private 4/12 per mo.	3	0		48	3
Plt 125 — Flight Basic ~ 4/12	0	9	25	(34)	2
AA 131 — Introduction to Aviation	3	0		48	3

	Per Week Lec. Hrs.	Lab. Hrs.	Total Flight Hrs.	Total Contact Hours	Semester Credit Hours
Com 131 — Applied Composition and Speech	3	0		48	3
Mth 195 — Technical Mathematics	3	0		48	3
ET 235 — Fundamentals of Electricity	3	3		96	4
PE 115 — Physical Performance Activities	0	3		48	1
Plt 132 — Flight Private Pilot 4.12	0	4		20	1
Plt 126 — Aero Engines and Systems 4.12	2	0		32	2
AA 134 — Aviation Law	3	0		48	3
Mth 196 — Technical Mathematics	3	0		48	3
Electives					6
				522	34

Second Year					
Plt 231 — Flight Commercial I 4.12	0	8	30	38	2
Plt 232 — Ground School Commercial 4.12	3	0		48	3
Plt 233 — Flight Commercial II 4.12	0	8	46	54	3
AV 130 — Introduction to Avionics Systems	3	0		48	3
SS 131 — American Civilization	3	0		48	3
PE 115 — Physical Performance Activities	0	3		48	1
Plt 234 — Flight Commercial III 4.12	0	4	46	50	3
Plt 237 — Meteorology 4.12	3	0		48	3
Plt 236 — Aero Physics 4.12	3	0		48	3
AA 239 — Airport Management	3	0		48	3
Electives					6
				478	33

OPTIONS

					Credit Hours
Multi-Engine Rating					
Plt 244 — Flight Advanced I 4.12	0	0	10	10	1
Instrument Rating					
Plt 239 — Ground School Instrument 4.12	3	0		48	3
Plt 241 — Flight Instrument 4.12	0	26	20	46	2
Flight Instructor Rating					
Plt 242 — Ground School Flight 4.12	2	0		32	2
Plt 243 — Flight Instructor 4.12	0	10	30	40	2

WELDING TECHNOLOGY
(Associate Degree of Applied Arts and Sciences)

The welding technology program is designed to prepare the student in the basic processes of oxy-acetylene 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 specialized training leading to higher level positions such as welding technicians or welding inspectors.

Enrollment in welding courses is open on the first Monday of each month. 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.

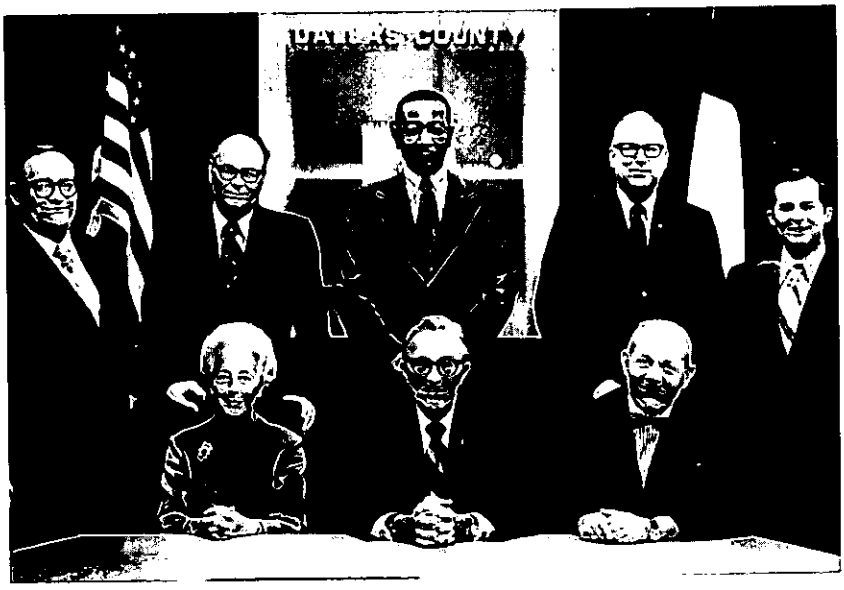
Curriculum Pattern

	Per Week Lec. Hrs.	Per Week Lab. Hrs.	Total Contact Hours	Semester Credit Hours
First Year				
WE 140 — Oxy-acetylene Welding I	1	7	32	1
WE 141 — Oxy-acetylene Welding II	1	7	32	1
WE 142 — Oxy-acetylene 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
Com 131 — Applied Composition and Speech	3	0	48	3
Mth 195 — Technical Mathematics	3	0	48	3
SS 131 — American Civilization	3	0	48	3
Dft 182 — Technical Drafting	1	3	64	2
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	0	48	3
ET 235 — Fundamentals of Electricity	3	3	96	4
Electives				3
			736	33

Second Year				
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**	**7**	**64**	**2**
WE 243 — Semiautomatic Arc Welding II (Flux Core)	**1**	**7**	**64**	**2**
WE 244 — Micro-Wire Welding II (Pipe)	**1**	**7**	**64**	**2**
WE 130 — Pattern Layout	**2**	**3**	**80**	**3**
Mth 196 — Technical Mathematics	**3**	**0**	**48**	**3**
MS 151 — Basic Machine Operation for Weld Tooling	**1**	**4**	**80**	**3**
Psy 131 — Human Relations	**3**	**0**	**48**	**3**
Electives				**9**
				31

Electives: Any general education course: Egr-189; WE-146; WE-245; WE-246; WE-247; WE-248; WE-249; WE-250.

FACUL AND



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M.S., Southwest Texas State

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Studies: Prairie View A&M
North Texas State University

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M.A., Texas Woman's University
Studies: Southern Methodist University
North Texas State University

BRUMBACH, MARY ALICE ..... ART
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M.A., North Texas State University
Studies: North Texas State University

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FAA Certified Advanced Ground Instructor
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Synthetic Flight Trainer Instructor
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C.P.A., Texas
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Western State College, Gunnison, Colorado

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Studies: East Texas State University

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M.Ed., University of Oklahoma

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University of California, Berkeley
North Texas State University

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Studies: North Texas State University
East Texas State University

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B.S., University of Southern Mississippi
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North Texas State University
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Professional Certificate, University of Illinois
Studies: University of Alabama
The Ohio State University
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Urban Progress with Education
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M.A., Kansas State University
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M.A., Texas Christian University
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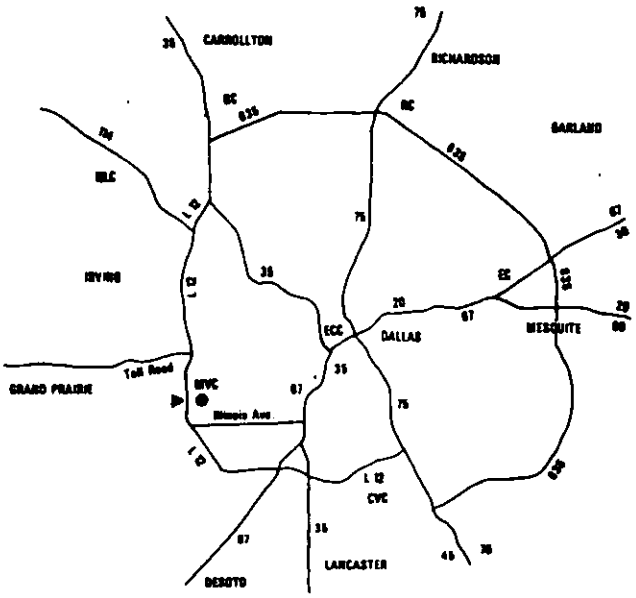
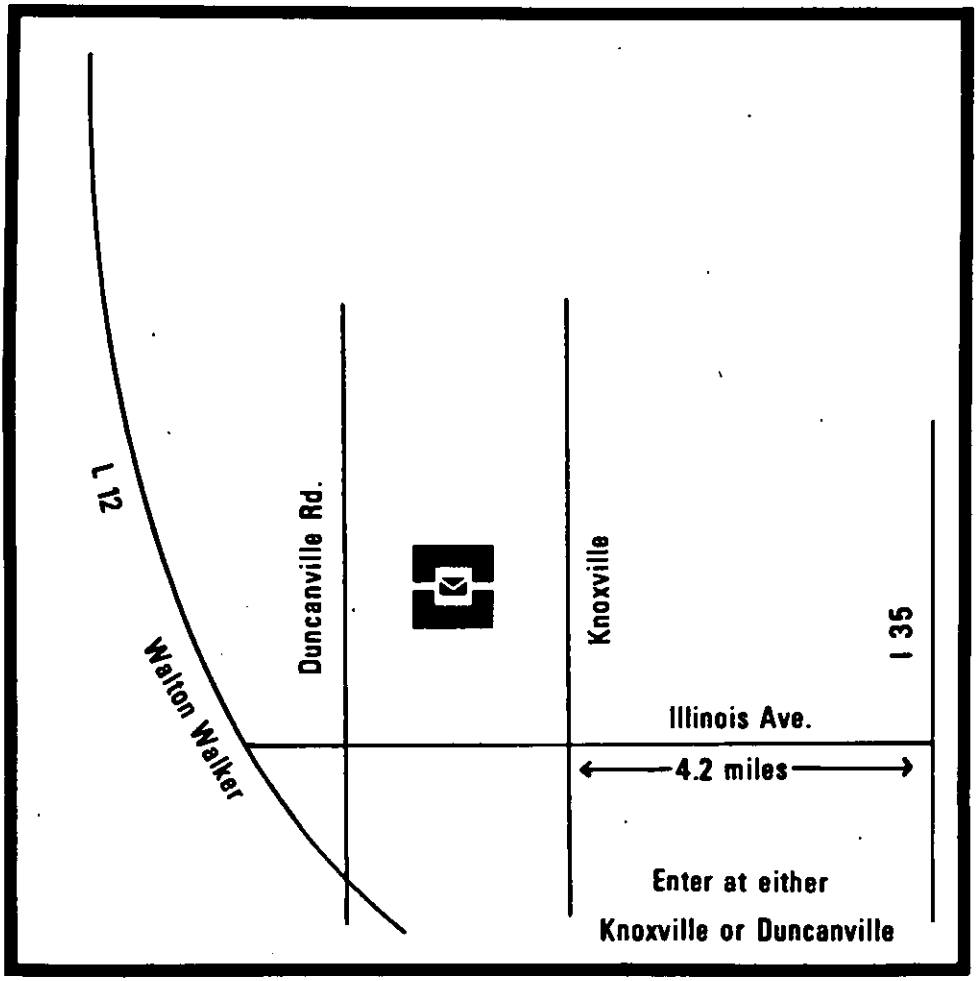
Texas State University
Eastern New Mexico University

INDEX

NLC — North Lake College
BC — Brookhaven College
RC — Richland College
EC — Eastfield College
▶MVC — Mountain View College
ECC — El Centro College
CVC — Cedar Valley College





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